

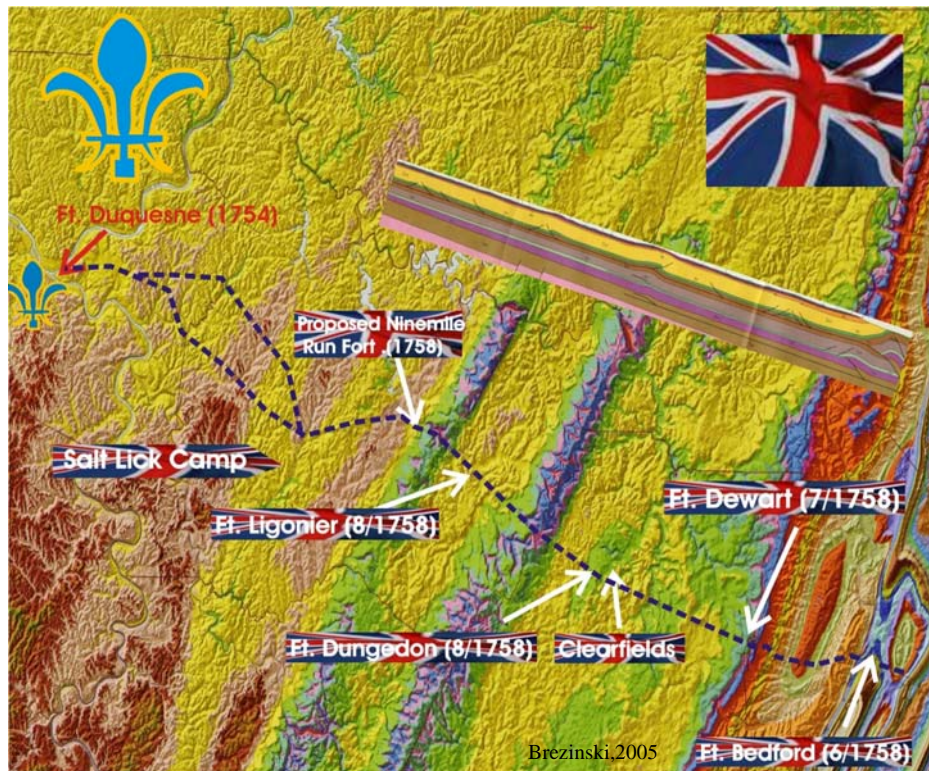


Pittsburgh Geological Society

Spring Field Trip Guide

May 3, 2008

TALES OF THE FRENCH AND INDIAN WAR DURING 1758: FORBES ROAD FROM FORT BEDFORD TO PITTSBURGH: A NEW PERSPECTIVE



Base map-Pennsylvania Geologic Shaded-Relief-PaGS, 2003; Illustration by D.K. Brezinski (Brezinski and Kollar, 2005)

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Field trip log prepared by Robert Burger.

Cover illustration by David Brezinski, 2005

Some of the story and road log narrative, as well as the text boxes and the Forbes Road epilogue, have been borrowed directly from Pete Briggs' 1997 Field Trip Guide," The Engineering Geology of Forbes Road". New stops and road log have been added when appropriate. Other parts of the narrative were derived from several histories which are included in the references.

INTRODUCTION

"Tales of the French and Indian War During 1758: Forbes Road from Fort Bedford to Pittsburgh: A New Perspective."

Many historians consider The French and Indian War (1754-1763), or the Seven Years' War as it was known in Europe, to be the First World War. This late 18th century conflict between the French and British Empires was fought for control of the Forks of the Ohio in Western Pennsylvania. The contested site was controlled at that time by the French at Fort Duquesne. In 1758, British General John Forbes began to build a road to Fort Duquesne through the forests of the Allegheny Mountains. As General Forbes lay on his death bed, he ordered "a Gold medal to be struck...[for] the officers of his Army to wear as an honorary reward for their faithful services,". On one side of the medal the inscription read, "Road cut thro an immense Forrest, over Rocks, and mountains. On the other side is represented the confluence of the Ohio and Monongahela rivers (Anderson, 2000, p. 284).

The geology along Forbes road spans a period of time from the Early Silurian Period (Middle Paleozoic), approximately 440 Ma, to the end of the Pleistocene 10 Ka. The bedrock geology that is exposed along the road (Late Silurian thru Late Pennsylvanian) includes evidence of mountain building, specifically the Alleghanian orogeny, as well as rocks of the Catskill delta, which resulted from the earlier Acadian orogeny. In addition, major environmental changes are seen in rocks represented by the tropical climates of the Devonian Helderberg reef, and the Pennsylvanian coal swamps, with sinkholes and bogs formed during the Pleistocene. The effects of stratigraphy, structure, and subsequent erosion of bedrock define the physiographic provinces of the Appalachians (Physiographic Provinces of the Appalachians frontispiece).

The main pentagonal supply bases, Fort Bedford and Fort Ligonier, were the jumping-off point for the assault on Fort Duquesne. These, and temporary encampments such as the "Clear Fields", can be seen for their geologic importance.

THE PLOT - The struggles of General John Forbes to build a road through the wilderness from Carlisle to the Forks of the Ohio with the goal of driving the French from Fort Duquesne during the summer and fall of 1758.

THE SETTING – western Pennsylvania and the upper Ohio River valley region, a wilderness previously inhabited only by Indians and traders, which becomes the battleground between French, English, and Native American powers during the French and Indian War (1754-1763) known in Europe as the Seven Years War.

THE TIMELINE

- 1744 - The Virginia Road, aka the Potomac Road or the Great Trail, ran from the Susquehanna River at Paxtang (Harrisburg) southwest through Shippensburg, into Maryland where it crossed the Potomac, and then on to Tennessee via a route that generally follows US 11. Traveling west from Carlisle, this road became the first 40 miles of the Forbes Road.
- 1748 - Treaty is signed in Logstown (near Ambridge) in which Indians welcomed Pennsylvania traders into the region, ending their exclusive trade agreement with the French. The grab for land in the region begins.
- 1753 - By the end of the year, the French have built three forts – Presque Isle (Erie), LeBoeuf (Waterford), and Machault (Franklin). George Washington, sent by Virginia's Governor Dinwiddie, travels the Venango trail to Fort LeBoeuf to demand that the French abandon the forts. The French decline to obey. Washington visits the Forks of the Ohio and recognizes the value of the spot. Governor Dinwiddie orders a structure built at the Forks.
- 1754 - The French arrive and replace Dinwiddie's newly built structure with Fort Duquesne. Washington and his soldiers, on their way back to Fort Duquesne to reclaim it, engage in a scuffle with a French detachment and the French ensign, Jumonville, is killed. Washington is then defeated at Fort Necessity and the French and Indian War begins.
- 1755 - General Edward Braddock cuts a road through the wilderness which begins at Cumberland, Maryland and is designed to end at Fort Duquesne. The purpose of the campaign is to roust the French from the Fort but Braddock's campaign is unexpectedly cut short by his defeat at what is known as Braddock's Field on the Monongahela River near Turtle Creek.
- 1755 - Colonel James Burd clears a road from Shippensburg to Raystown (Bedford) following the "Old Traders Path" which continues to the Forks of the Ohio. He is building the road to hook up with Braddock's campaign. Colonel Burd reaches the Allegheny Ridge but withdraws after hearing that General Braddock has been

defeated.

- 1758 - Bouquet constructs Fort Bedford. Leaving in mid-summer, Forbes marches five months to Fort Duquesne on a new road, building fortifications along the way, known as a "line of communication." The village of what would become Pittsburgh was founded.
- 1758 - After being abandoned by the Indians and lacking support, Fort Duquesne is burned and abandoned by the French before Forbes arrives in November, 1758. Fort Pitt is then constructed by the English from 1759-1761, the most elaborate fort of its time. It is not without flaws; it is vulnerable both to flooding and to attacks from enemies positioned on higher slopes.
- 1763 - Chief Pontiac engages in war. A consortium of local tribes surrounds Fort Pitt and demands surrender. After a four-day offensive, the tribes instead withdraw to meet Bouquet who has been sent to relieve Fort Pitt. They clash for several days in the battle of Bushy Run until Bouquet's troops prevail.
- 1764 - Bouquet again marches from Carlisle to fight the Indian Confederacy under Chief Pontiac. Bouquet's redoubt, now known as the Blockhouse, is built in Pittsburgh.
- 1772 - The British army abandons Fort Pitt. It is reoccupied by forces under Virginia's governor, the Earl of Dunmore, to reclaim southwestern Pennsylvania and to engage in a punitive war against the Shawnee.
- 1776 - The rivalry between Pennsylvania and Virginia ends when they unite in the common cause of the American Revolution.

THE CAST – (in order of their appearance)



The Indians - Delawares, Mohawks, Miamis, Senecas, Mingoes, Shawnees, Wyandots, Iroquois, Cherokees and Catawbias and others. As Indian support was coveted by both French and English, there were dynamic and complicated associations between the three groups (and within the three groups) that could change in a heartbeat. Europeans desired Indian support because they knew the land better than the Europeans and weren't afraid to fight. Whichever side wasn't in the good graces of the Indians

must worry about being their victims. Generally, the Indians considered the Europeans to be weak and corrupt. The Europeans, though mindful of Indian ferocity, were generally disdainful toward the group.



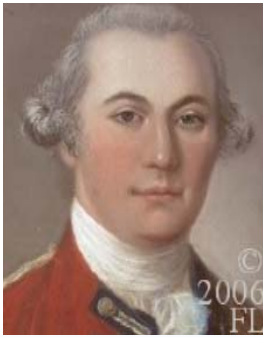
George Washington (1732 – 1799) Born in Virginia, he learned the morals, manners, and knowledge requisite for an 18th century Virginia gentleman. The skirmish at Jumonville Glen, and the Battle at Great Meadows, aka Fort Necessity, in 1754 in present-day Fayette County, are considered to be the

opening shots of the French and Indian War. He rode with General Braddock to his defeat in 1755 and then with General Forbes in the 1758 campaign. Not thrilled with carving out a brand new road to the west, Washington, who accompanied Forbes and Bouquet, did not endear himself to them. Washington died in 1799 of a throat infection.



E Braddock

General Edward Braddock (1695 – 1755) born into a military family, Braddock became a major-general in 1754 and was appointed to command against the French in America. He came to Virginia in 1755 and was persuaded to undertake vigorous actions against the French. Not the most popular commander, and amid many supply and logistical problems, he led the campaign with 1,400 soldiers against Fort Duquesne by carving the Braddock Road through the wilderness from Fort Cumberland to the Forks of the Ohio. The campaign ended with Braddock's defeat.



John Forbes (1707 – 1759) was a British general born in Scotland. When the French and Indian War broke out, Forbes was sent to the fight in the New World, and in 1757, he was assigned to command an expedition to capture Fort Duquesne, which guarded the Forks of the Ohio. In the summer of 1758, Forbes began his methodical march to Fort Duquesne, taking great pains to secure his lines of supply and communication with a string of forts along a newly constructed road into the Pennsylvania frontier. With some 6,000 regular and colonial militia troops, Forbes began his push from Carlisle, Pennsylvania into the forested wilderness of western Pennsylvania. Sick for the entire campaign, he died in March, 1759 after returning to Philadelphia. It was the dying Forbes who suggested the name for Pittsburgh (Pittsborough) in a letter to William Pitt, England's Secretary of Defense.



Henry Bouquet (1719 – 1765) born into a moderately wealthy family in Switzerland, Bouquet entered military service at the age of 17 and became a professional soldier. He entered the British Army in 1756 as a lieutenant colonel and was called to Philadelphia to take part in General John Forbes' expedition against Fort Duquesne in 1758. Bouquet was named Forbes' second in command for the campaign, and as Forbes was ill during the campaign, much of the burden of command fell on

Bouquet. It was by his advice that the army constructed a new road through central Pennsylvania, instead of using the Braddock road from Maryland. Bouquet died in Florida in 1765, most likely from yellow fever.



James Grant (1720 – 1806) – born in Scotland, Grant came to the "Continent" in 1745. In September of 1758, under Forbes, Grant lead an advance party of 800 to Fort Duquesne to determine its strength. Having no wilderness experience, Grant was ambushed by the French and Indians at what is now Grant Street in Pittsburgh. The engagement, called the Battle of Fort Duquesne, cost Forbes 342 men who were either killed, wounded, or captured. Grant blamed his defeat on the soldiers' failure to follow orders. Grant was also captured but survived to fight in the Revolutionary War a few years later.



The soldiers – an assortment of groups among them the 77th Highland Regiment of Foot, Montgomery Highlanders, the Royal Americans, First and Second Virginia Regiments, and provincials from Pennsylvania, Maryland, Virginia, and North Carolina.. Some were "professionals", born and raised to be soldiers. Some were simply raw and undisciplined colonial troops who didn't really want to fight and didn't really know how. Desertion, fighting and drunkenness, were common. All soldiers, in spite of their background, were often hungry, wet, hot, cold, sick, weary, poorly armed, poorly clothed, poorly supplied, or otherwise needy. In some cases, their wives tagged along.



Pontiac (Obwandiyag) c. 1720 – 1769)– Ottawa chief and prominent leader of Pontiac's Rebellion who launched an uprising in 1763 by North American Indians who were dissatisfied with British policies in the Great Lakes region after the British victory in the French and Indian War/Seven Years' War (1754–1763). Warriors from numerous tribes joined the uprising in an effort to drive British soldiers and settlers out of the region. Historians disagree about Pontiac's importance in the war that bears his name. The picture is an illustration of what Pontiac may have looked like.

THE CHALLENGES

Weather – Rain fell frequently in the summer and fall of 1758, enough to flood out roads, turn soils to mud, and cause landslides. Torrential downpours caused roads to be washed out and wagons to become either marooned or ruined by stumps. Sweaty, heat fatigued and fly-bitten, the troops suffered.

Illness – Under stresses induced by inadequate and inconsistent food supply, lack of hygiene, inclement weather, injuries, and fear of Indian attacks, hundreds of soldiers became ill with an assortment of infections, both respiratory and intestinal. They might be bedridden for days until the malady passed. Some died.

Supplies – Food, clothing, arms, money, liquor, tools, horses and wagons were usually in short supply. Even the horses did not have proper pasturage and often died en route. Wagons were in short supply in all of the American campaigns. Supplies often had to be gathered from the local countryside and sent along to the troops. Many times, they didn't get there or they were spoiled by the time they arrived. It was up to the Quartermaster-General Sir John St. Clair to provide supplies needed for the campaign.

Indian relations – multiple tribes either worked with or against each other. At any given time, they could also be working with the French, with the English, or against them. In 1758, Cherokees and Catawbans, mortal enemies of the Iroquois, decided to stand with Forbes against other Indian tribes. Then, having no patience with Forbes' slow pace, they began to desert in large numbers, leaving Forbes undefended.

Troop relations – There was often a lack of discipline and infighting among a collection of competing ethnic and political interests. Bitter antagonism existed between British regulars and American provincial militias and only a strong leader, such as Bouquet, could smooth out the differences between them and unite the troops into a coherent army. Sometimes troops would refuse to work until they were paid or given food or rum. Sometimes it was the officers themselves providing the drama as when George Washington bordered on insubordination by vehemently and vocally opposing the Forbes plan to build a road through the wilderness. He argued that they should return to the Braddock Road.

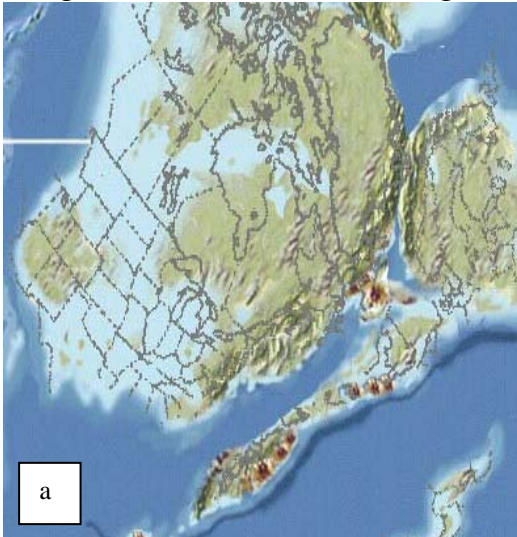
Geology – Geologically-related obstacles were numerous including rigid or mushy rock formations to pass over, inconveniently dipping rocks to impede progress and to hoist men and equipment over, bogs and streams to trudge across, steep slopes, high elevations and soft soils.

Forests – Interminable, dense, virgin forest prevented forward views to plan the path of the road. In western Pennsylvania, the wilderness resided in the forest, where assorted obstacles, ticks, and ambushing rivals hid and where the troops and supplies were strung out for miles on tiny hacked out paths, just wide enough to let a wagon pass. The forest floor, timbered and tangled with laurel and vines, was a relentless deterrent to progress.

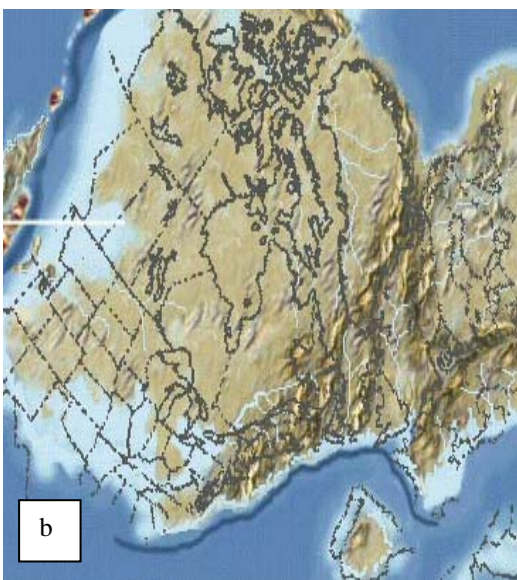
GEOLOGICAL OVERVIEW

adapted from submissions by Chuck Shultz and Albert Kollar)

All bedrock encountered on the trip is Paleozoic sedimentary strata ranging in age from Early Silurian Tuscarora Formation to Late Pennsylvanian Conemaugh Group (see Geologic Map of Pennsylvania frontispiece). The age of these strata range from 430-310 Ma. During this time interval, the land that would become



Figures 1 and 2. Paleogeographic maps of proto North America and Avalonia about to collide (a) and after collision (b) White line is the paleo-equator. Illustration by Ron Blakely.



North America began its geographic journey south of and near the equator and gradually, over the eons, migrated northward, and rotated counterclockwise, to its present geographical position. During the same time interval in Pennsylvania, strata were being deposited in alternating episodes of continental and marine deposition. The rocks we see tell us that what is now western Pennsylvania was an active spot that was alternately land or occupied by the sea.

Partly responsible for the alternating episodes of deposition during this time interval were the Acadian (Late Devonian) and the Alleghanian (Late Pennsylvanian) orogenies, discrete mountain building events, separated by 70 or 80 million years.

The Acadian orogeny, caused by suturing of the microcontinent, Avalonia, onto the eastern edge of the Laurentian continent (Figures 1 and 2), produced a high range of mountains, with most of the deformation occurring in New York and New England. Erosion of the mountains flushed great quantities of sediment into the foreland basin ending a long period of marine deposition. This sediment created the great Catskill delta that built into the foreland basin and overwhelmed it causing the shoreline to retreat westward. From time to time, the shoreline

transgressed eastward flooding the land.

The Alleghanian orogeny was caused by the catastrophic collision of Gondwana into the already modified eastern margin of Laurentia during the Late Pennsylvanian and Permian. This collision is part of the coalescence of continents to form the mega-continent Pangea (Figure 3). At the collision zone, a great chain of mountains, the Appalachians, were pushed up (Figure 4) affecting a large portion of what would become Pennsylvania and extending from the southeastern U.S. to beyond New England. As the mountains rose, they eroded, shedding sediments into the still subsiding foreland basin to their northwest. Simultaneously, strata that were being displaced by the force of the collision were compressed, deformed, and transported north and west, becoming the folded and faulted rocks of the Appalachian Mountain Section of the Ridge and Valley Province, the remnants of which we still see.



Figure 3. Hypothetical map of Pangea

Superimposed on the stratigraphic and structural landscape seen on this field trip were the changes brought about by shifts in the climate. During the Pleistocene Epoch, an ice age lasting

nearly two million years and ending about 10,000 years ago, immense glaciers moved from the frozen poles into the temperate zones. In western Pennsylvania, glaciers, as much as a mile thick, extended over much of the northwestern and northeastern corners of the state (see Glacial Map of Pennsylvania frontispiece). The parts of Pennsylvania that were not covered in ice were frozen tundra with permafrost and sparse vegetation.

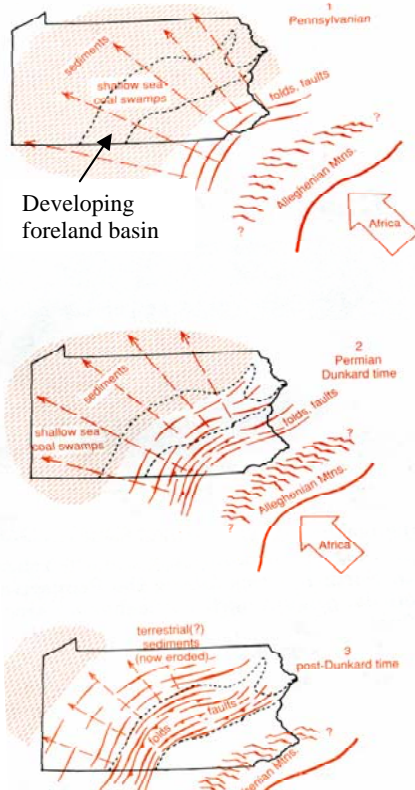


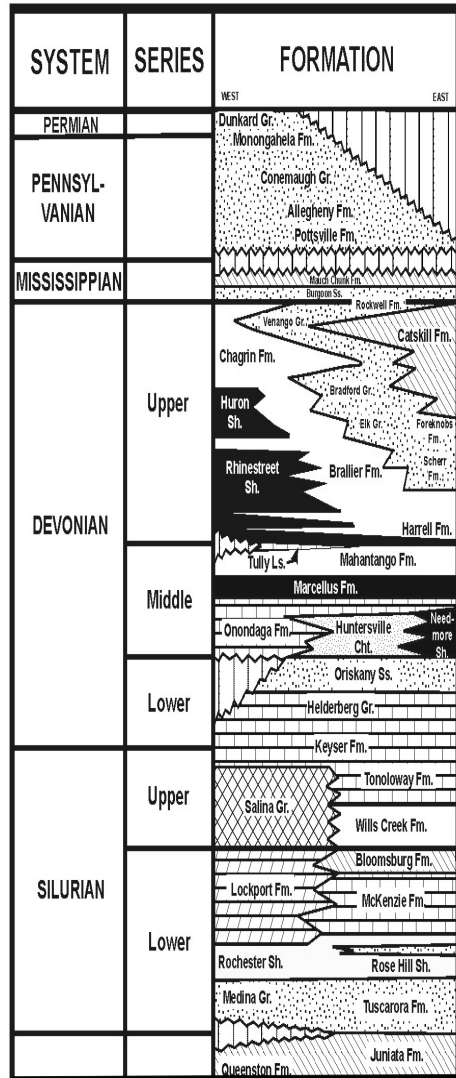
Figure 4. The Alleghanian orogeny initiated by the collision with approaching Africa. Eroding sediments filled the foreland basin. (VanDiver, 1990, p. 160).

Along with the cold temperatures, the glaciers brought with them a significant increase in rain and snow. Throughout this tundra zone, any low-lying areas that had poor drainage were submerged because of the unusually large amounts of precipitation. Soon, all of these areas became glades--shallow lakes that were frozen in the winter and open water in the summer. The cold water filling these glades supported only specialized plants that were able to withstand the intensely cold conditions. One of these plants was sphagnum moss, a plant that grew along the margins and surface of the glade where the water

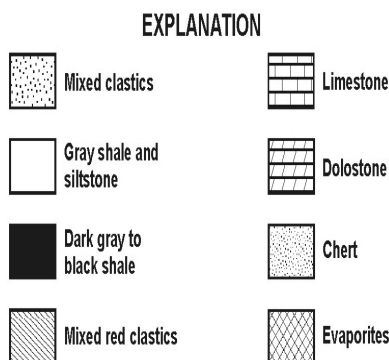
warmed in the summer and there was enough sunlight to grow. Because the cold temperatures impeded the process of decay, the moss eventually grew over and filled the entire glade, leaving no open water. Many western Pennsylvania bogs continued to develop into grassy or forested areas (Brezinski and Kollar, 2005).

THE GEOLOGY OF FORBES ROAD

(adapted from submission by Chuck Shultz)



Rocks encountered on this field trip



Although the Forbes Road actually began near Carlisle, PA and went to what is now Pittsburgh, the focus of this trip is the portion of the road that was cut east to west through the wilderness beginning in what is now Bedford and ending in Latrobe, a town at the base of the western flank of Chestnut Ridge. As such, the trip traverses the Appalachian Mountain Section of the Ridge and Valley Province and then proceeds west across three sections of the Appalachian Plateaus Province including Allegheny Front and Allegheny Mountains, and ends in the Pittsburgh Low Plateau (Physiographic Provinces of Pennsylvania frontispiece).

The most significant geologic obstacles to the Forbes Road effort were Allegheny Front and Laurel Hill, both of which were topographic highs controlled by the underlying bedrock and structure.

The strata over which Forbes Road is built spans from Late Silurian Tuscarora Formation to Late Pennsylvanian Conemaugh Group (Figure 5). Stratigraphy influenced road building, specifically the rock types that make up each formation.

Figure 5. Stratigraphic column showing strata to be seen on this trip. *Courtesy of John Harper 2008*

wrinkles when it is pushed across the floor does not disturb the underlying floor (Figure 6).

To develop Allegheny Front, the press from the collision forced the décollement to climb higher in the overlying rock section from Cambrian strata into Middle Silurian strata (correlative to the Salina salt section further northwest), another weak zone. From Allegheny Front west, for the most part, it is only Silurian through Pennsylvanian strata that are sliding west. Again, splays developed off this upper décollement to form Laurel Hill and Chestnut Ridge anticlines, but as the stratigraphic section is thinner, and the effects of Gondwana's push were fading, the structural relief is diminished.

The impact of this structural picture on Forbes Road building is significant. Deformed strata dip, yielding potential slip surfaces that impact road stability and ease of travel. The principal topographic challenges, Allegheny Mountain and Laurel Hill, are underlain by dipping strata, but the direction of the dip relative to travel is a further complication. The bedrock beneath Allegheny Mountain dips to the west resulting in steep erosional slopes facing east, forcing builders to hack their way across the upturned eroded edges of sedimentary formations (Figure 7). In contrast, at Laurel Hill, strata dip generally east and west parallel to the flanks of the hill and at a slightly steeper angle than the topographic land surface (Figure 7). Travel occurred mostly on gentler slopes covered with residual soils or colluvium.

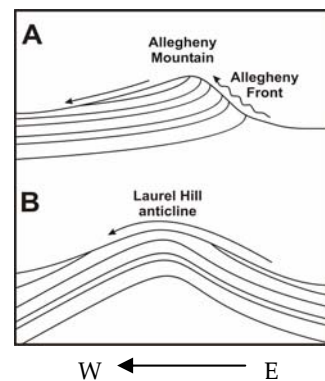


Figure 7. Illustration showing the difference in relationship between bedrock dip and surface slope between Allegheny Mountain and Laurel Hill. Arrows show direction taken by Forbes Road. *Illustration by John Harper, 2008.* Directional arrow added.



A statue of George Washington and Goyasuta, a Seneca Indian, located on Mt. Washington. *Photo courtesy Albert Kollar, 2008*

THE SHORT STORY

Before 1758, most movement westward across the Alleghenies passed near what is now Cumberland, Maryland on the upper Potomac River.

Travelers then crossed the mountains to the Monongahela River and traveled downstream to "The Forks of the Ohio," the confluence of the Monongahela and Allegheny rivers where they form the mighty Ohio, the French "La Belle Riviere" which the French considered to be the combined Allegheny and Ohio Rivers.

Although the French and English had been skirmishing here and there for decades, it wasn't until the French carved out a territory for themselves in the Ohio River region that the English

decided to act. In 1749-1750, the French delineated their chosen area by traveling from Canada down the Allegheny River, down the Ohio to the Great Miami River, north to what is now Fort Wayne Indiana, up the Maumee River to Lake Erie and then back to Canada. Along the way, expedition leader Captain Céloron, buried lead plates at the mouths of rivers and streams encircling the area the French were claiming. The Virginians responded by building a trading post at the Forks of the Ohio. By the end of 1753, the French had built three forts (Presque Isle, LeBeouf, and Machault) along the northern Pennsylvania lead-plate line (Figure 8).

The English responded in 1753 by sending the young Lieutenant Colonel George Washington of the Virginia Militia, accompanied by his guide Christopher Gist, north to Fort Machault to deliver a message to the French that they should abandon their forts. The French declined and in 1754 came down the Allegheny, ousted the Virginians from the trading post, and proceeded to build Fort Duquesne at the Forks of the Ohio.

In the meantime, Virginia Governor Dinwiddie again dispatched Washington, along with some Provincial soldiers, to reinforce the structure at the Forks. By the time he arrived at Great Meadows (Figure 9), the post at the Forks had already fallen. Acting on a tip, Washington engaged in an unfortunate skirmish with a French party led by Ensign Joseph Coulon de Villers, Sieur de Jumonville who was killed in the action. Whether Jumonville was a combatant or a diplomat may well have depended on who was answering the question. Washington immediately retreated to Great Meadows, built Fort Necessity (Figure 9) and was defeated there resulting in his surrender. And so the war began. It was 1754.

In 1755, General Braddock had orders to carve out a new road to Fort Duquesne where he was to take Fort Duquesne and then proceed north to join other armies engaged in other campaigns. Coming from Maryland, and staying to the high ground to avoid ambush, the road-building campaign was successful until the army was a few miles from Fort Duquesne where they suffered defeat and death at the hands of the French and Indians near the mouth of Turtle Creek near what is now known at Braddock's Field (Figure 9).

Three years later, the 6,000-man army of General Sir John Forbes decided on a different route, heading west straight across the mountain instead of traveling south to

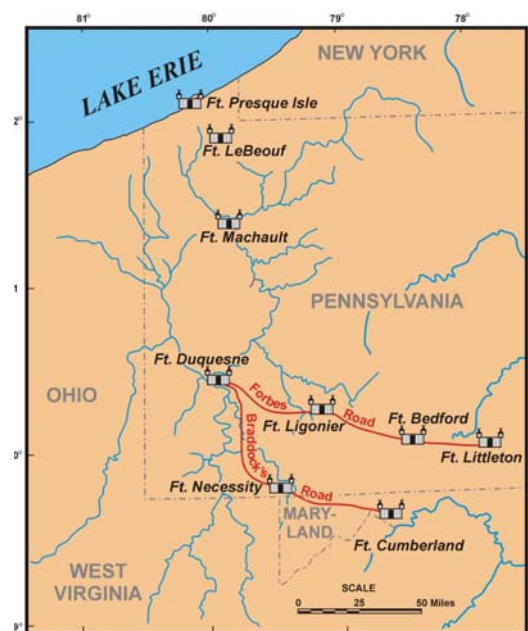


Figure 8. Map of the early French forts in the Allegheny River region and the later British forts coming in from the south and east. The track of Braddock's and Forbes' Roads have been drawn in. *Map from Thomas Cool; redrawn by John Harper.*

pick up the Braddock Road. Starting from Carlisle, Pennsylvania, fifteen miles west of the Susquehanna River, in the summer of 1758, Forbes troops traveled as far as Raystown (now Bedford) on existing roads and paths. Forbes, not a healthy man during the entire campaign, relied heavily on his chief executive officer, Colonel Henry

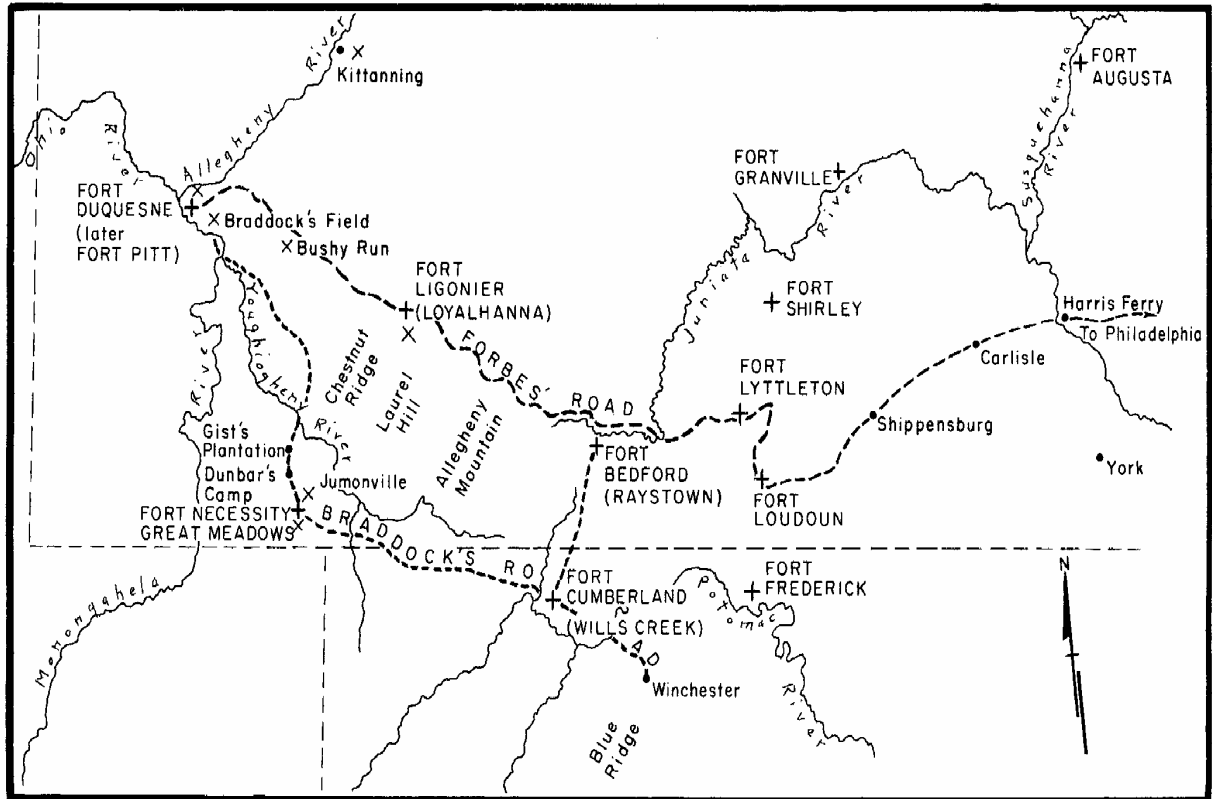


Figure 9. Map showing Braddock and Forbes Roads as well as forts in the wilderness (modified from Waddell, Louis M. and Bomberger, Bruce D., 1996, p. 42)

Bouquet, a Swiss serving under the British, and it was under Bouquet's direction that Fort Bedford was constructed.

From Fort Bedford westward, the troops followed a new road, constructed under the direction of Bouquet, who built a series of supply forts, stopover points, and redoubts along the way (called a line of communication). These were spaced within a day's march of each other along Forbes Road. The pace was slow. It took five months for the army, artillery, wagons, support staff, and other equipment and supplies to cross the rugged terrain to the Forks. It might have taken longer were it not for the resourcefulness of one Ensign Rhor, who found a ravine that would allow the army to move up and over the most formidable of the topographic challenges – the Allegheny Mountain. There were also other assorted setbacks – weather, illness, Indians, and the unexpected loss of a small detachment of troops that was sent ahead to evaluate conditions at Fort Duquesne. The detachment, led by James Grant,

was largely slaughtered or taken prisoner. One of the lost was the valuable Ensign Rhor.

In spite of the setbacks, the campaign was ultimately successful. After the Grant debacle, the Indians abandoned the French, the French destroyed and abandoned Fort Duquesne, Fort Pitt was built, and Pittsburgh was founded. General Forbes died shortly after the campaign was over but not before writing a letter suggesting the name of "Pittsburgh" for the site.

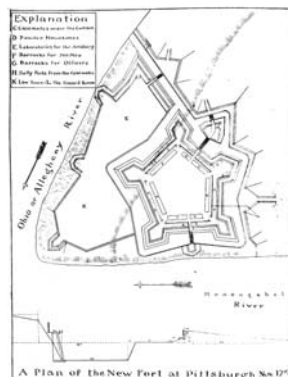
WAR EPILOGUE

By 1760, England had prevailed in a series of successful battles over the French until the French surrendered. The battle for the American frontier was over – at least with the French. As the English no longer felt that they had to compete with the French for Indian favor, they stopped showering the Indians with gifts and goods. Along with persistent intrusion of settlers into the frontier, and as the Indians had become dependent upon European goods, the action was detrimental and the British were warned of a general Indian uprising.

In 1763, Pontiac, and the Indian Confederation, descended onto the frontier, and the Forts along the upper Allegheny River fell. Fighting continued at Fort Pitt for four days until the Indians abruptly left to meet Bouquet at Bushy Run who was en route to relieve the besieged Fort Pitt. Bouquet and his 497 soldiers won the two-day battle after the clever Bouquet, by now highly skilled in Indian warfare, outmaneuvered the Indians resulting in the death of many of the Indians' best fighting chiefs. Bouquet went on to relieve Fort Pitt, and the weary Indians retired to the Muskingum River in Ohio country. The battle marked a turning point in the war.

In 1764, Bouquet was again marching westward, leading a larger army from Carlisle to face the Indians. He pursued them into Ohio with 1,000 Pennsylvania troops and so overwhelmed the tribes, they sued for peace and returned all of their 200 captives.

And so, the French and Indian War came to an end, and by 1772, the British army abandoned Fort Pitt as there was no longer a need for it. As for "Pittsburgh", the rest, as they say, is history.



ROAD LOG

This field trip starts at Bedford and ends at U.S. 30 in Latrobe, a small town located at the western base of Chestnut Ridge. Take the Turnpike east toward Harrisburg and travel to the Bedford exit. The road log duplicates, or is adapted from, Pete Briggs' 1997 field trip guide unless otherwise indicated. All descriptive text boxes are from the same field trip guide.



Figure 10. View of Ft. Bedford with Pleistocene river terrace drawn in, *Photo and illustration courtesy of David Brezinski, 2005*

Mile Cumulative Mile Description

0.0 0.0 The road log starts at the Bedford exit toll booth. If you have a trip odometer, set it to zero here. At the end of the Bedford toll plaza turn right (south) onto business route US 220.

2.4 2.4 At the light at the intersection of business US 220 and business US 30 in Bedford turn right (west) on US 30, Pitt Street.

0.1 2.5 At the light, at the intersection of US 30 and Juliana Street, turn right (north). Near this intersection is a sign pointing right, toward the Fort Bedford Museum.

0.1 2.6 **STOP 1 -- The Fort Bedford Museum.**

As mapped by historian Williams and marked by the Pennsylvania Historical and Museum Commission, Forbes Road began in Carlisle. Here at Bedford, we are a little over halfway from Carlisle to Fort Pitt. Two of the five principal mountain barriers, Tuscarora Mountain and Sideling Hill/Rays Hill, lie to the east, and are not seen on this field trip. The fort, built by Bouquet was located on a river terrace above the site of the present museum (Figure 10). It was the last of the pentagonal forts and was used as a supply base.

The alluvium of the Raystown Branch of the Juniata River rests on the Silurian to Devonian Tonoloway and Keyser formations. About 1.5 miles to the east is Everts Mountain, cored by the Silurian Tuscarora Formation, and The Narrows gap through which passed the Forbes Road and now pass the Raystown Branch of the Juniata River, US 30, and the Turnpike.

Head west along the south side of the Raystown Branch through the park and turn left up Thomas Street.

0.1 2.7 Stop sign at the corner of West Street and US 30. Turn right (west) on US 30. Continue straight on US 30.

1.7 4.4 Intersection of business US 30 with the US 30 Bedford bypass. At the stop sign, turn left (northwest) on US 30.

0.8 5.2 Crossing the US 30 bridge to Wolfsburg. Forbes Road crossed from the south to the north side of the Raystown Branch of the Juniata River here. In 1760 Captain Lewis Ourry built a bridge over the branch 60 to 80 yards upstream (to the left), but it was washed out in 1762, so in 1764 Bouquet had to ford the branch. The ford is believed to have been about at the site of the current bridge. Wolfsburg is on the axis of the Wills Mountain anticline, here exposing Silurian rocks.

1.7 6.9 About here the original Forbes Road of 1758 curved southwest toward "Shawanese Cabbins" (now Shawnee State Park) across hills capped by the Devonian Scherr Formation near the north end of the Wellersburg syncline.

Lieutenant Colonel St. Clair's alternative route of later in the same year headed straight west along the line of US 30. In 1758 elements of Forbes army used both routes.

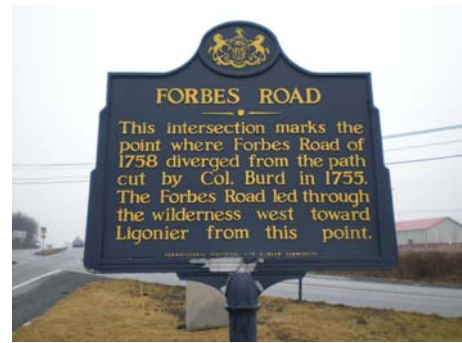


Photo courtesy Albert Kollar, 2008

0.2 7.1 Passing under the Pennsylvania Turnpike into a road cut in the Silurian Tonoloway Limestone.

1.3 8.4 Approximate axis of the Wellersburg syncline.

0.4 8.8 This is the top of the first "rising" around Schellsburg, the east flank of the Schellsburg dome.

1.7 10.5 On the left is the entrance to Shawnee State Park, which is the site of Bouquet's "Shawanese Cabbins" encampment in 1764.

1.1 11.6 Traffic light at intersection with PA 96 in Schellsburg. Turn right onto PA 96 and travel north toward New Paris.

4.5 16.1 Entering New Paris.

0.7 16.8 At the end of town, near Whysong's Drug Store, bear right onto Cuppett Road. Travel straight ahead and up the hill.

0.4 17.2 Turn left onto Quarry Road to meet with the owner of the New Paris sinkholes who will direct and accompany us.

STOP 2 – New Paris – sinkhole in Devonian Helderberg Group with Pleistocene mammal fossils - Associated with the limestone deposits within the Appalachian

Mountain Section of the Ridge and Valley Province of the Appalachians are some 35

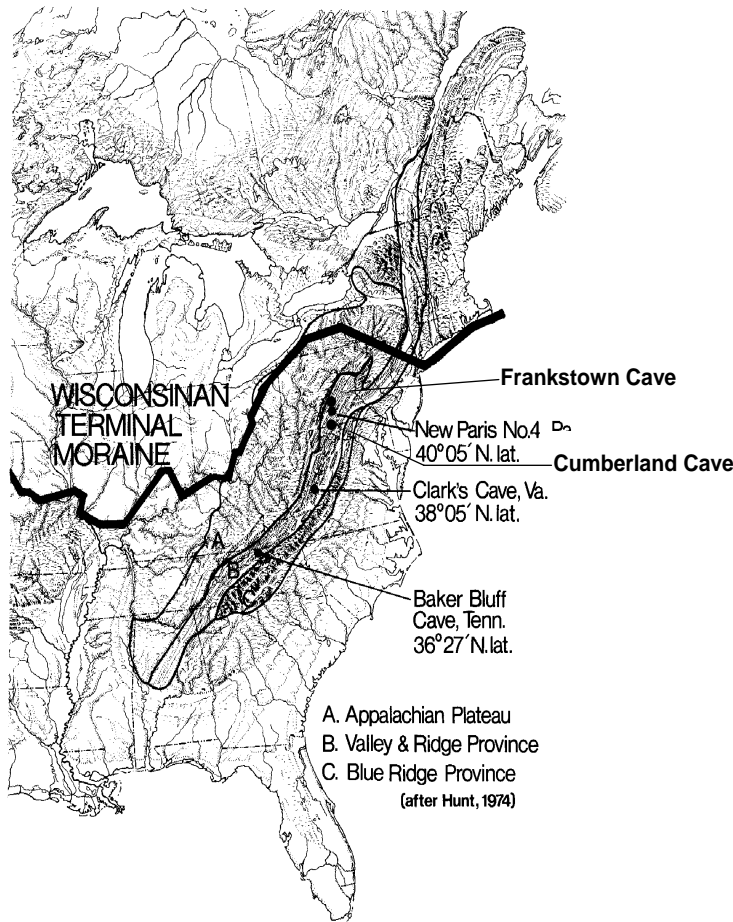


Figure 11. Physiographic map of eastern North America showing extent of ice sheet and sinkholes in the Appalachians. Modified from Guilday and others, 1978, p. 4.

Pleistocene caves that document the occurrence of vertebrate fossils (Figure 11). Based upon their faunal content, most of these appear to fall in the period from 20,000 to 10,000 years B.P. The New Paris No. 4 sinkhole produced a late Pleistocene biota: over 3,000 vertebrates, with an accompanying pollen profile. C-14 date is approximately 11,300 +/- 1,000 years B.P. The New Paris no. 4 sinkhole is interpreted to have formed in a cool taiga environment, a swampy area of coniferous forest occurring between tundra and steppe (Guilday And Others, 1964).

Return the way we came to Cuppett Road.

To protect the privacy of the owner of Stop 2, mileage has not been recorded. Reset odometer to 0.0.

Turn left onto Cuppett Road. As we travel up the hill, note the spring at the base of the long slope beyond the farm house on the right. A little further up the road, we will also see a long dry valley to our right, both features indicating karst terrain. Also notable about the ridge is the abundance of fruit trees.

1.0 1.0 At the stop sign, turn right. This ridge, called Chestnut Ridge (not to be confused with Chestnut Ridge in Fayette County), exposes a lovely vista to the east and west.

0.4 1.4 The view to the east is Evitts Mountain and southeast is Wills Mountain. Allegheny Front is visible to the west.

0.1 1.5 Turn right onto Grasshopper Road. Continue down the hill to the stop sign at the bottom.

1.3 2.8 Turn left onto Cortland Road (Route 96) and return to U.S. 30.

4.8 7.6 Turn right onto U.S. 30.

0.2 7.8 Marker showing the location of the Forbes Camp in Shawnee Cabins located just to the south.



Photo courtesy Albert Kollar, 2008

0.9 8.5 Approximate axis of the Schellsburg dome.

0.2 8.7 **STOP 3 – Overview of the Allegheny Front.** From here you have one of the best views of the Allegheny Mountain Front. Almost directly ahead, the scar you see angling upward and to the left is US 30 scaling the Front. Continue on Route 30.

4.6 13.3 Note the Catskill red beds on the way up the hill on the right.

0.6 13.9 Rhor's Gap – we will pause here but will not disembark as the ravine is private property and we do not have permission. This ravine was the key to conquest of the Allegheny Front. The problem was how to surmount the cliff-forming Mississippian-Devonian Rockwell Formation and the even more competent Mississippian Burgoon Sandstone. Ensign Rhor, a valued engineer in the Forbes campaign, discovered this north-trending defile, which rises about 600 feet in 3/4 of a mile, a punishing average gradient of 15 percent (Figure 12). Pause a moment and imagine Forbes' 6,000 men and their gear going up this narrow ravine (Figure 13). The army crossed into the Ohio drainage through a pass in the lowermost Pennsylvanian Pottsville at about 2,800 feet (see Figures 12 and 13.)

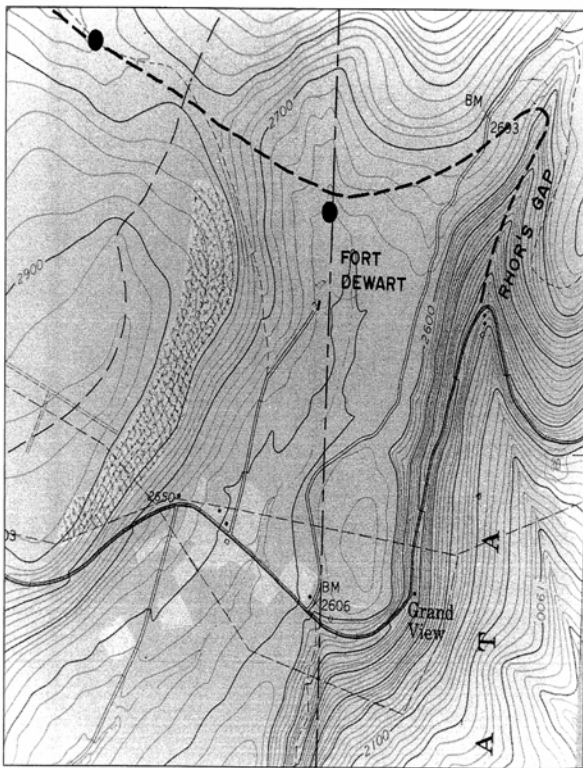


Figure 12. Topographic map showing Rhor's Gap, modified from U.S.G.S. Topographical Maps, 7.5 Minute Series, Central City (1981) and Schellsburg (1984) Quadrangles

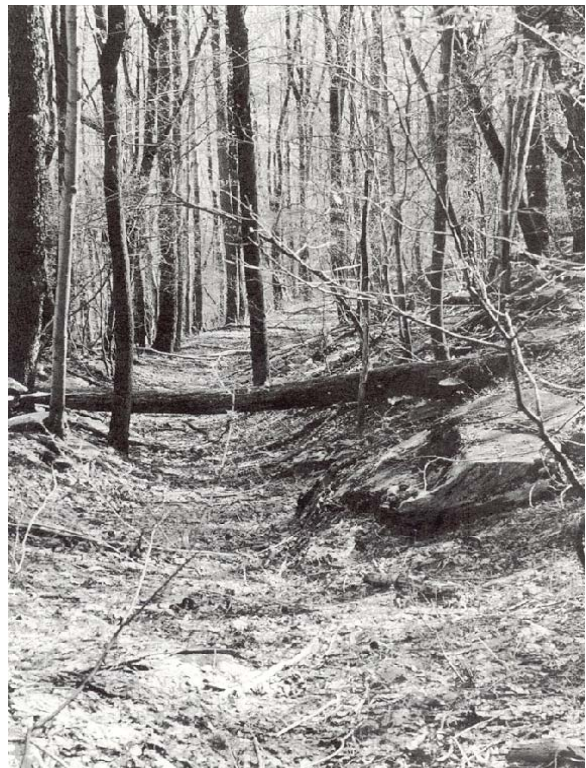


Figure 13. Photo of Forbes Road ascending Rhor's Gap, Waddell and Bomberger, 1996, p. 49

STOP 4 - Former Grand View Point Hotel

Overlook - This stop marks the location of the former Grand View Point Hotel (Figure 14), a prominent feature on US 30 for many years. It also marks the escarpment that is the boundary between the Appalachian Plateaus Province, with its relatively flat-lying Carboniferous strata, and the Ridge and Valley Province of highly folded Paleozoics. The outcrop of the upper part of the Mississippian Burgoon Sandstone is visible on northwest side of highway. This is the "Big Injun Sand" of the western Pennsylvania oil and gas fields. From Grand View Point there is a fine view of the closely folded Appalachians to the east. If the day is



Figure 14. The S.S. Grand View Point Hotel, also known as the Ships Hotel, in 1933. The hotel was built in 1932 and burned to the ground on October 26, 2001. The hotel hosted many fine visitors. Picture submitted by Carol Bell of Ohio

clear, you should be able to see some of the more prominent features to the east (Figure 15).



Figure x. Physiographic map showing topography between Bedford and Allegheny Mountain Front. Buffalo Mountain, Wills Mountain, and Everts Mountain are supported by the Late Silurian Tuscarora Formation. Allegheny Mountain Front (the Wall) is held up by the Rockwell and Burgoon

Continue uphill on U.S. 30.

Once through "Rhor's Gap", and above the Mississippian Burgoon Sandstone, the remaining way over the Front was relatively gentle and easy over strata of the Mississippian Mauch Chunk Formation and through a pass in the lower part of the Pennsylvanian Pottsville Formation at just over 2,800 feet elevation, and Forbes Road passed from the Susquehanna River drainage into the Ohio River basin

0.4 15.0 This is the top of the "first rising" of the Allegheny Front. The slope just ahead goes down

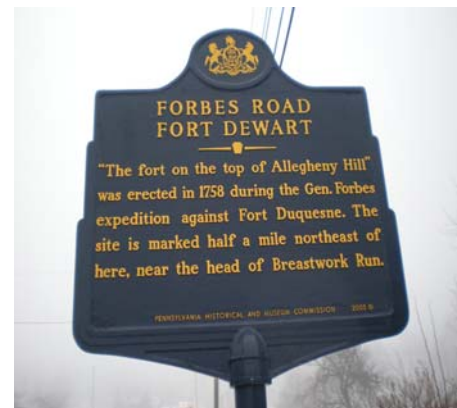


Photo courtesy Albert Kollar, 2008

into the headwaters of the appropriately named Breastwork Run, because in 1758, Fort Dewart was constructed not far to the northeast of here.

1.1 16.1 The top of the "second rising". From here to about halfway up Laurel Hill we are riding on strata of the Pennsylvanian Pottsville and Allegheny formations and Conemaugh Group. We will cross over Bald Eagle Summit at 2,906 feet.

2.7 18.8 Intersection with PA 160. Continue straight on U.S. 30.

1.3 20.1 Approximate axis of the Berlin syncline.

0.6 20.7 On the right is a historical marker for Edmonds (or Edmunds) Swamp. A camp located here, on the Raystown Path, provided

From the top of the Allegheny Front to the crossing of Quemahoning Creek at elevation about 1,800 feet, Forbes Road gradually and irregularly lost 1,000 feet in elevation over an airline distance of about 15 miles. Rising beyond the creek is the next to last important mountain barrier on Forbes Road, Laurel Hill, a high anticlinal ridge. It is almost as high as the Allegheny Front, just under 2,800 feet elevation on the Forbes Road trace, so the "lost" 1,000 feet was regained, here in about 6 miles. On its west side it drops about 1,600 feet to Fort Ligonier in a similar distance. In 1758, crossing Laurel Hill did not come easily.

good grass for the horses of General Forbes' Army in

1758. The site of the redoubt is marked two and a half miles north of here." Bouquet also used this camp site in 1764. Crossing the boggy areas required special engineering. "Corduroy roads" were laid down to allow the troops to cross.

1.5 22.2 Coal mining to the left is in the Kittanning coal beds of the Pennsylvanian Allegheny Formation.

0.5 22.7 Approximate axis of the Negro Mountain anticline.

3.5 25.7 Intersection with PA 403, turn right. Follow 403 to the right. Entering Kantner.

0.7 26.4 Stonycreek crossing at Kantner. We will not disembark here but will pause a moment to enjoy the site. This brass marker is one of several emplaced in 1930 by the Pennsylvania Historical and

Museum Commission, most of which still survive. Here Stonycreek flows northeasterly on strata of the Pennsylvanian Allegheny Formation. The road on the other side of the creek that descends to the railroad and the creek probably is a good

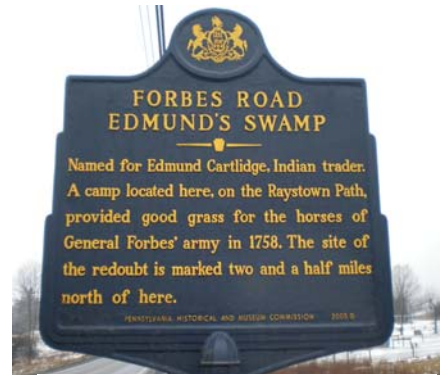


Photo courtesy Albert Kollar, 2008

approximation of the location of Forbes Road. Forbes' army in 1758, crossed the creek near the current bridge. The marker reads:

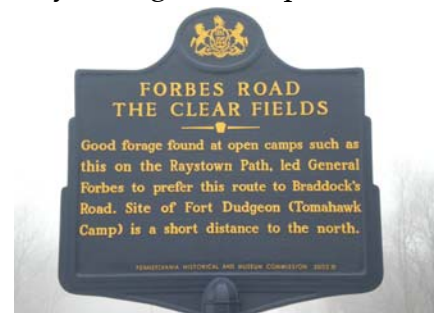
STONEY CREEK ENCAMPMENT
 "THE OVENS"
 SUPPLY HEADQUARTERS
 FORTIFICATIONS WERE ERECTED
 A FEW RODS NORTH OF THIS SITE
 THE FORBES ROAD LEADS
 NORTHWARD TO THE
 ENCAMPMENT AT THE FOOT OF
 LAUREL HILL
 23.5 MILES FROM FORT BEDFORD



Photo courtesy Albert Kollar, 2008

Reverse direction. In Kantner, continue straight ahead on Forbes Road rather than turning left to follow PA 403.

- 1.1 27.5 In Stoystown turn right.
- 0.5 28.0 Bear left onto Oak Avenue to rejoin US 30. Bear right.
- 0.8 28.8 Approximate axis of Somerset syncline.
- 2.4 30.4 Crossing stone bridge.
- 1.9 32.1 US 219 overpass. Continue straight on US 30.
- 0.7 32.8 Approximate axis of the Boswell dome.
- 1.7 33.8 Crossing of Quemahoning Creek. "Kuymony" bridge encampment was near here.
- 0.3 34.1 LUNCH at Burger King
- 1.5 35.6 Traffic light at intersection with PA 985 in Jennerstown. Continue straight.
- 1.0 36.6 Overview of Laurel Hill.



0.4 37.0 The Clear Fields encampment was off to the right from this location. Sites such as Clear Fields and Great Meadows of the Braddock campaign were sought by the army because they supported grasses that were important for grazing for the animals. These were the "rest stops".

Photo courtesy Albert Kollar, 2008

Continue on U.S. 30. Approaching Laurel Hill.

2.3 39.3 At the top of the hill, turn left onto Laurel Summit Road. Continue down the road.

4.3 43.6 Trail to Beam rocks on left.

1.4 45.0 Turn right to stay on Laurel Summit Road.

0.1 45.1 Turn right into Laurel Summit Picnic Area parking lot. Look for trail that is marked Spruce Flats Bog.

STOP 5 – The Geology and Botany of Spruce Flats Bog (Westmoreland and Somerset Counties, Pennsylvania), from Brezinski and others, 2005.– Peat bogs are intriguing geological and ecological features that record a climate setting very different than what we see today. Scattered through the Appalachian Plateaus Physiographic Province of western Pennsylvania, Maryland, and northern West Virginia, these marshy areas are relics of the Pleistocene Epoch, which is more widely known as the *Ice Age*. Bogs reflect the ancient environmental conditions that occurred during the Pleistocene, and preserve localized pockets of unusual plant communities as refuges. Spruce Flats bog is only one of numerous bogs that sustain such relict communities in western Pennsylvania. Most Pleistocene bogs become filled, through time, and take on a grassy or even an arboreal biota. Once this occurs, they are commonly referred to as meadows. One such example is the *Great Meadows* of Fayette County where Fort Necessity is located. However, Spruce Flats bog, by virtue of its position at more than 2,700 feet in elevation, has maintained much of its original marshy character and botany as a result of the colder climatic conditions that prevail at this elevation.

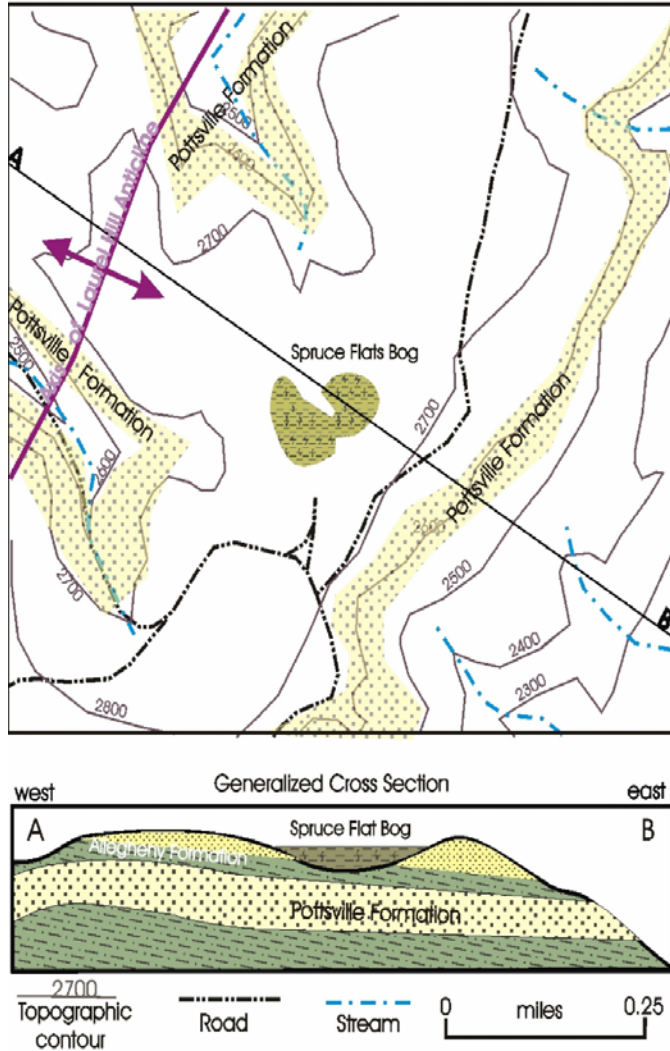


Figure 16. **Location map with idealized geological cross section for Spruce Flats at the crest of Laurel Hill. Note how gently inclined sandstone layers create a damming effect and poor drainage to allow Spruce Flats Bog to form.**

The bedrock exposed at the crest of the Laurel Hill anticline is comprised of alternating shale and sandstone belonging to the Pennsylvanian Allegheny Formation. A thick sandstone layer within the Allegheny Formation forms the flat area at the crest. Immediately below the Allegheny Formation are thick sandstone layers of the Pennsylvanian Pottsville Formation (Figure 16). Because these sandstones are very resistant to erosion they allow Laurel Hill to form the ridge that it does. The individual sandstone layers of the Allegheny Formation have been partially eroded, leaving a depression at Spruce Flats. This depression accumulates water because an impervious clay or shale seals the base of the bowl and prevents the water from infiltrating into the underlying rock layers. This depression, in essence, has dammed the drainage within the Spruce Flats area and allowed the bog to form (Figure 16).

BOG BOTANY

Bogs typically have low diversity of plant species because plants that live in bogs must be able to endure extreme temperatures and acidic water conditions. Additionally, they must be able to overcome constant soil saturation as well as nutrient-poor environments. Plants have adapted special features in order to succeed in these conditions. Many of the shrubby plants that grow in bogs have woody stems and firm leathery leaves that they retain throughout the year. This helps to conserve nutrients that would be lost with shedding leaves. Trees and other woody plants that grow in bogs also typically show stunted growth forms and develop shallow spreading roots. This is a result of the lower level of nutrients available to the plants as well as the lack of support due to generally unstable ground.

Carnivorous plants are among the most unusual plants found in bogs. These plants include the pitcher plant and sundew which occur at Spruce Flats. They have evolved to feed on small insects to supplement their supply of nitrogen, and other nutrients that are found in limited quantities. The pitcher plant has a highly specialized leaf that forms a cup with downward pointing hairs to trap prey. Once inside, the prey falls into the liquid in the cup, which contains digestive enzymes. Sundews have sticky hairs on their leaves, similar to flypaper, with which to trap small insects. Once an insect is captured the sundew wraps its leaf around the victim and begins to digest it.

Special Plants of Spruce Flats Bog

Large cranbeny	<i>Vaccinium macrocarpon</i> Ait.
Pitcher plant	<i>Sarraceniapurpurea</i> L.
Sundew	<i>Drosera rotund</i> L.
Cotton grass	<i>Eriophorum virginianum</i> L.
Peat moss	<i>Sphagnum</i> spp.
Bushy St. Johns-wort	<i>Hypericum dens</i> Pursh
White beaksedge	<i>Rhynchospora alba</i> (L.) Vahi
Brownish beaksedge	<i>Rhynchospora capitellata</i> (Michx.) Vahi

Isaac in Brezinski and others, 2005, p. 3-4)

Leave parking lot and turn right onto Laurel Summit Road. Bear right onto Linn Run Road.

4.0 49.1 **STOP 6 – Linn Run State Park Ligonier block quarry site**

The term cobblestone or “Belgian Block” is probably best known to Pittsburghers as a gray to tan paving stone seen in many older neighborhood streets. Easy to recognize, the late Mississippian Loyalhanna is characterized by large-scale, festoon cross-bedding composed of a mixture of quartz and carbonate sand. Based upon its large-scale cross-bedding, the Loyalhanna was initially believed to be an aeolianite. It was later reinterpreted as a shallow marine sand-wave complex on the basis of textural attributes, bedding characteristics, and paleocurrent evidence.

More recently, detailed re-evaluation of the cross-bedding characteristics and frosted sand grains has prompted researchers to again interpret the genesis of

the Loyalhanna as aeolian. Recent recovery of a brachiopod-dominated fauna from six localities of the Loyalhanna Formation in western Maryland, northern West Virginia and southwestern Pennsylvania has significant bearing on the environmental interpretation of the origin of this unit (Brezinski and Kollar, 2006). The fauna is dominated by four brachiopod orders represented by the genera, *Pugnoides*, *Cleiothyridina*, *Composita*, *Anthracospirifer*, *Kitakamithyris*. The genus *Dielasma* occurs less commonly, and the gastropod *Straparollus* and indeterminate bryozoan fronds are also present. The brachiopods are commonly articulated and unabraded and are scattered throughout the cross-bedded intervals. Furthermore, in some areas, the cross-bedded units are interbedded with dark-gray lime mudstone. The widespread presence of these articulated faunal components within the Loyalhanna, in conjunction with its interbedding with limestones, suggests that the shallow marine interpretation is the more reasonable for the studied area. Loyalhanna's features here at this stop are thick bedding, trough cross-bedding and honeycomb weathering.

Continue along Linn Run Road to the stop sign. At this point we are entering the Ligonier Valley syncline.

3.8 52.9 Turn right on PA 381.

1.4 54.3 Turn left to stay on PA 381.

1.6 55.9 Turn left onto US 30.

<0.1 56.0 Make a slight right onto Old Lincoln Highway (Old Forbes Road).

1.5 57.5 Bear right onto the old Loyalhanna Creek terrace and head toward town.

0.1 57.7 Turn left onto South Graham Street and then right onto East Loyalhanna Street.

0.2 57.9 Turn left onto South Market Street and then left into Fort Ligonier Park.

STOP 7 - Geology and the French and Indian War in Western Pennsylvania-Fort Ligonier, from Brezinski and Kollar, 2005

Along Forbes' Road, in the center of the Ligonier Valley syncline, Bouquet built a fort along the banks of Loyalhanna Creek in the summer of 1758. This was the last of numerous forts constructed in the campaign to take Fort Duquesne. Unlike

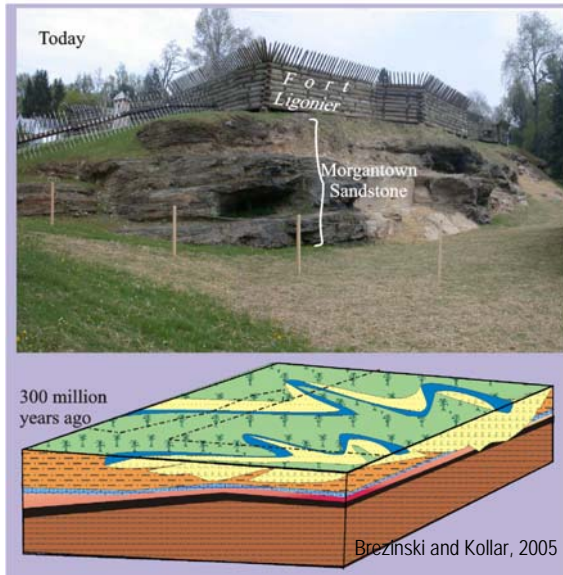


Figure 17. Reconstructed Fort Ligonier today built on a river terrace above the Morgantown Sandstone. Block diagram shows interpretation of depositional environment in Pennsylvanian time.

Braddock three years earlier, the Forbes' campaign advanced westward in Pennsylvania in a slow and methodical way as he built defensive fortifications approximately a day's march apart. Fort Ligonier was attacked on a number of occasions during the conflict and was manned for the remainder of the war.

Fort Ligonier was constructed in a defensive position along the banks of Loyalhanna Creek. The site occupies a promontory situated between Loyalhanna Creek and a small tributary to the north. The resistant sandstone ledge on which the fort was constructed acted as additional defensive fortification.

This sandstone unit at the site of the fort is assignable to the Morgantown Sandstone of the Late Pennsylvanian Conemaugh Group. The Morgantown Sandstone is an ancient river deposit formed more than 300 million years ago. At that time all of western Pennsylvania was at or near the equator and covered by tropical forests and swamps. Flowing through these forests and swamps were immense river systems that carried sand from the eroding Appalachian Mountains in eastern Pennsylvania. The sandstone layers were bent into the Ligonier Valley syncline approximately 250 million years ago during the Alleghanian orogeny.

Leave parking lot. Turn left onto South Market.

0.2 58.1 Turn right onto Route 30.

0.5 58.6 Approximate axis of Ligonier syncline.

From Fort Ligonier, the army had one last hurdle to cross, the anticlinal Chestnut Ridge. Troops crossed Loyalhanna Creek and then traveled northwestward to Fourmile Run, located at the eastern edge of Chestnut Ridge. The easiest route would have been through the Loyalhanna Creek water gap just to the north but because of the military hazard (ambush), Forbes and company built the road up and over the anticlinal ridge, climbing 700 feet and then descending 900 feet to Ninemile Run, located five miles away on the western edge of Chestnut Ridge, ending in what is now Youngstown (not Ohio).

1.7 61.3 Intersection just past the Idlewild amusement park. Turn left onto Darlington Road aka Idlewild Hill Road.

0.3 61.6 Cross Loyalhanna Creek and bear left up Fourmile Run.

0.7 62.3 Intersection with Ridge Road from the right, opposite the Darlington Volunteer Fire Department. Turn right. Ridge Road from here all the way across Chestnut Ridge to Youngstown is a very close approximation of Forbes Road.

1.5 63.8 **STOP 8 -- Ridge Road, just east of the crest of Chestnut Ridge.**

The gully parallel to the road on the south runs "caterslaunchways" (Appalachian for at an odd angle) to the topography. It is believed to be a segment of Forbes Road, worn down by travelers and now incised into strata of the Pottsville Group by waters flowing in the worn-down track.

0.8 64.6 Approximate axis of Chestnut Ridge anticline.

1.0 65.6 Good view looking down on the Pittsburgh Low Plateau. Turn left at bottom of hill.

1.3 66.9 Traffic light in Youngstown. Continue straight and across Ninemile Run.

1.8 68.7 Intersection with PA 981 opposite Westmoreland-Latrobe Airport. Turn right on PA 981. From Youngstown to here we have also been on a good approximation of Forbes Road. Intersection with US 30. Turn left. END OF TRIP.

FORBES ROAD EPILOGUE

Our trip ends at the intersection with US 30. The Forbes Road, however, went on to what is now Pittsburgh. Once down off Chestnut Ridge and on the incised Pittsburgh Plateau, the remainder of the march to Fort Pitt was fairly easy going, over hilly terrain underlain by the Pennsylvanian Conemaugh Group and Monongahela Formation (Geologic Map of Pennsylvania frontispiece). Forbes Road wandered purposefully westward across central Westmoreland County, chiefly keeping to sides or tops of ridges. Forbes Road went generally northwestward, then turned westward south of current US 22 to the vicinity of what is now Murrysville, still following the sinuous path dictated by the topography. There it crossed the line of US 22 and went northwestward up Piersons Run and met Frankstown Road (a then-existing Indian and trading path) in now Allegheny County. Very sinuous ridge-top Frankstown Road faithfully reproduces Forbes Road for most of the way into the eastern part of the City of Pittsburgh, and the rest of the route to Fort Pitt for most purposes can be said to have been along the general line of now Penn Avenue (see map at end of the document).

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