

From Wilderness to Fortress

Exploring the History
of a Revolutionary Site

Resource Guide



**Mount Independence State Historic Site
Orwell, Vermont**

From Wilderness to Fortress

**Exploring the History of a Revolutionary
War Site**

**A Resource Guide for
Mount Independence State Historic Site
Orwell, Vermont**

**Prepared for
the Vermont Division for Historic Preservation**

**by
Sheila Charles, Lynne DeBeer, Pamela Lewis, and Pamela Monder**

Table of Contents

Introduction

Introduction	Page I
Vermont Framework of Standards & Learning Opportunities	Page III-V

Chapter 1 *Investigating the Past*

Archaeological and Historical Research of Mount Independence

• Introduction & Background	Page 2
• Archaeological Activities	Page 21

Chapter 2 *From a Mile High Glacier to a Rugged Plateau*

The Natural Resources and Geography of Mount Independence

• Introduction & Background	Page 39
• Environmental/Geographical Activities	Page 49

Chapter 3 *This Land Is Our Land*

Native Inhabitants and the History of Early Settlers

• Introduction & Background	Page 58
• Native American & Colonial Activities	Page 78

Chapter 4 *“With Spirit, Yet in Misery”*

The American Campaign and Fortification of Mount Independence

• Introduction & Information	Page 96
• American Revolutionary Activities	Page 105

Chapter 5 “Spike the Cannons and Move On”

British Occupation of Mount Independence

- Information & Background Page 148
- British Revolutionary Activities Page 168

Chapter 6 “Determined to Take Post on a Hill”

Engineering Feats at Mount Independence

- Introduction & Information Page 186
- Engineering & 18th-Century Building Activities Page 200

Chapter 7 “A Most Sorrowful Condition”

Health, Ailments, & Cures of the 18th-Century Army on Mount Independence

- Introduction & Information Page 225
- Health & 18th-Century Medical Activities Page 235

Chapter 8 Main Street, Mount Independence

The Building of a City Atop Mount Independence

- Introduction & Information Page 250
- 18t-Century Life Activities Page 258

Chapter 9 The Fruits of What We Fought For

Developments on Mount Independence Since 1777

- Introduction & Information Page 297
- 19th- & 20th-Century Cultural & Tourism Activities Page 312

Introduction to Mount Independence

Mount Independence is unique within the state as it is the only major Revolutionary War fortification built on Vermont soil. Although no battles were fought here, it stood as a Revolutionary War fortress for the Northern campaign, garrisoned by as many as 12,000 American soldiers in 1776. That year it slowed the British advance from Canada and gained priceless time for the American cause.

Beyond its role as a Revolutionary War military center, Native Americans utilized resources on the Mount as early as 3,000 years ago and may have occupied the region several thousand years before that. Research also indicates that European settlers, such as the Scottish and French, occupied the area prior to the Revolution.

In July 1996, the State of Vermont opened a visitor center and museum, assisted by funds raised by the Mount Independence Coalition, a nonprofit organization. The building serves as an educational center for the history of Mount Independence and associated historical and archaeological research.

Nestled into a contour of the southern hillside, the center tells the story of Mount Independence and exhibits some of the artifacts discovered on the Mount and in the surrounding waters. In contrast to Fort Ticonderoga, a restoration and recreation of structures located just across Lake Champlain, Mount Independence relies on the archaeological remains at the site and the center's exhibits, including computerized displays to illustrate and help visitors envision the structures that once stood there and the events that took place in 1776 and 1777.

Introduction to the Resource Guide

The Vermont Division for Historic Preservation invites you and your students to experience Mount Independence through this interdisciplinary resource guide.

The guide is part of a long-term research and interpretive plan for Mount Independence, which is jointly owned and administered by the State of Vermont, Division for Historic Preservation, and the Fort Ticonderoga Association.

We believe that by providing the highest quality interactive learning experience and communicating the importance of the Mount Independence site to Vermont's children, the public will also become informed about the value of conserving our cultural and natural resources.

The guide is structured around major study topics--archaeology, geography, history and social studies. Chapters 1-3 deal with the natural and social history of this promontory and its surrounding environment. Chapters 4-6 cover the American Revolution and focus on the historic events that took place on and around Mount Independence. Chapters 5-8 deal with the social history of the Mount, its development as an encampment or "little city," and life in the 18th century. Chapter 9 examines what has happened to Mount Independence over the 200 years following the American Revolution.

Who Might Use This Guide

While the guide and accompanying elements were designed primarily to aid schools, parents and community groups are encouraged to use this resource to explore environmental, archaeological, and historical topics and engage in easily accomplished activities to support these topics.

How to Use This Guide

The Mount Independence Resource Guide is designed to allow middle grade teachers maximum flexibility. Chapter introductions can be used as informative texts about the Revolutionary War and the study of archaeology and the environment. Activities can stand alone, accompany readings from a classroom social studies text, or be used as part of a Mount Independence thematic unit. Activities have been carefully chosen to represent the various disciplines of study: language arts, history and social sciences, science, math, and fine arts. Many activities have alternatives that allow students to work in one or more of the multi-intelligences.


Recent research indicates that the use of primary documents in the social sciences not only heightens student interest but also improves retention of knowledge and promotes civic responsibility and community involvement. Primary documents and personal quotes have been used throughout this curriculum to give the student a first-person point of view. Stories of actual people are shared in the "We Were There" sections of several chapters. Students should be involved with the curriculum, become part of the action at Mount Independence, sense the time periods and take part in decision-making processes. In other words, the guide has been designed to immerse students in the sights, sounds, conversation, food, military decisions, personalities and day-to-day activities of the 1776 "little city" at Mount Independence.

How the Activities Are Designed

Each activity includes key elements needed for thorough preparation, such as an introduction, objectives, target ages, classroom orientation, time needed, materials, and, wherever possible,

suggested resources. In addition, complementary activities are recommended which can be done upon visiting the site. Many activities include "Whispered Echoes from the Mount," quotes from primary resources that relate to the activity or topic.

How to Order Accompanying Museum Kit

You can bring the museum to your classroom or group by borrowing an accompanying Museum Kit that contains real artifacts; reproduction items, tapes, a Mount Independence board game "March to the Mount," a library of illustrated books and maps, copies of soldiers' journals and primary documents, and colorful charts to accompany activities. Activities and information tied to the Museum Kit are marked with a provision chest  symbol. See ordering instructions inserted in the back of this book or call the Vermont Division for Historic Preservation at (802) 759-2412.

How to Arrange a Classroom Visit to the Mount

The guide and Museum Kit should be used to complement, not replace, a classroom visit to the Mount. Throughout the year, we want to make your classroom's visit to the Mount as engaging as possible. With advance scheduling, arrangements can be made for activities on site with reenactors and docents to lead your students through real life experiences and bring Mount Independence to life.

Call us at year-round at (802) 759-2412

Vermont's Framework of Standards

The Mount Independence Resource Guide has been designed to meet many of the Vermont Framework of Standards criteria for the social sciences, history, vital results and other disciplines of study. While you may find that an activity will fulfill more than one standard. Suggestions are listed below for matching activities to standards.

<u>Vermont's Framework Criteria</u>	<u>Chapter</u>	<u>Suggested Reading/Activity (italics)</u>
	1. Investigating the Past	
1.17 Expression as Notation and Representation		<i>Mapping Site 204</i>
3.15 Career Choices		<i>Create a Culture You Can Dig</i>
4.3 Cultural Expression		Chapter Reading
4.5 Continuity and Change		<i>Listening to the Past</i>
7.2 Scientific Investigation		Chapter Reading
7.5 Scientific Roles and Responsibilities:		<i>Message in a Bottle, Create a Culture You Can Dig</i>
7.15 Resource Management:		Chapter Reading
	2. From a Mile-High Glacier to a Rugged Plateau	
1.7 Notation and Representation (scientific)		<i>Maps and Keys</i>
6.7 Geographical Knowledge		Chapter Reading
7.13 The Living World --Organisms, Evolution, and Interdependence		
7.15 The Universe--Theories, Systems, and Forces,		
7.16 Design and Technology-- Natural Resources		
	3. This Land Is Our Land	
4.3 Cultural Expression		Chapter Reading
5.16 Changes in Language		<i>Word Origin: New England Indian Place Names</i>
5.29 Visual Arts--Elements and Principles		<i>Pottery Making (Native American)</i>
5.30 Visual Art, Media		<i>Pottery Making (Native American)</i>

Vermont's Framework Criteria

Chapter

Suggested Reading/Activity (italics)

- 6.8 Geography--Movement and Settlements
- 6.9 Geography--Interrelationships
- 6.14 Diversity and Unity --Concepts of Culture
- 7.13 The Living World - Organisms, Evolution, and Interdependence

Seasonal Life Cycle of the Abenaki

Seasonal Life Cycle of the Abenaki

Place Yourself in Their Moccasins

Seasonal Life Cycles of the Abenaki

- 1.17 Notation and Representation of Data
- 2.2 Problem-solving Process
- 2.3 Complex Problem Solving
- 3.10 Teamwork
- 5.31 Music
- 6.5 Traditional and Social Histories
- 6.6 Being a Historian

4. "With Spirit Yet In Misery"

Where Do I Put My Bedroll?

Does Lindsey Woolsey Come with Washing Instructions?

A Navy Without an Ocean

March On!

Fife and Drum

Kennedy Letter/Halt Who Goes There?

Chapter Reading, *Nothing New Under the Sun*

- 1.15 Communication--Speaking and 3.10 Relationships-Teamwork
- 5.1 Critical Response
- 5.19 Non-Native Language
- 6.5 Traditional and Social Histories
- 6.6 Being a Historian
- 6.8 Geography--Movement and Settlement:
- 6.10 Meaning of Citizenship
- 6.14 Concepts of Culture and 6.15 Eras and Styles
- 6.20 Nature of Conflict

5. "Spike the Cannons and Move On"

Manning a Cannon: A Dying Art

Chapter Reading

Common Goal, Different Language

Chapter Reading

Chapter Reading

The Essex Cannon

Oath of Loyalty and Tory Ballad

Perukes

Chapter Reading

Vermont's Framework Criteria

Chapter

Suggested Chapter/Activity (italics)

- | | |
|---------------|--|
| 2.3 | Complex Problem Solving: |
| 2.5 | Problem Solving-Mathematics Dimensions |
| 2.10, | Abstract and Creative Thinking |
| 2.11 | Abstract and Creative Thinking |
| 2.12 | Abstract and Creative Thinking |
| 5.6 | Changes in Language |
| 7.7 | Geometric and Measurement Concepts |
| 7.10 | Math Problem Solving and Reasoning Application |
| | |
| 2.2, 2.6, 2.7 | Application, Information and |
| 7.14 | Human Body |
| 2.7 | Reasoning and Problem Solving-Process: |
| 6.14 | Diversity and Unity-Concepts of Culture |
| 6.14 | Design and Technology-Natural Resources |
| | |
| 5.16 | Changes in Language |
| 6.2 | Uses of Evidence and Data and |
| 6.3 | Analyzing Knowledge and Social Customs |
| 6.5 | Traditions and 6.10 Citizenship: Identities |
| 3.15 | Career Choices |
| | |
| 6.6 | Being an Historian: |

6. “Determined to Take Post on a Hill”

*Now That I'm in Command
Does This Star Have a Point?*

7. A Most Sorrowful Condition

Imagine a Fort and The Hospital
Imagine a Fort and The Hospital
Imagine a Fort and The Hospital
Sappers, Artificers Needed
Becoming a Fortification Engineer
Where's My Theodolite?

Real Cure Or Not?
Priorities, A Hasty Retreat
Apothecaries/Cleanliness is Next to Godliness
Natural Pharmacopoeia

8. Main Street, Mount Independence

*Wordsmithing
Camp Followers*

9. The Fruits of What We Fought For

A Classroom Full of Artisans/Camp Followers

Chapter Reading

1

Investigating the Past

Archaeological and
Historical Research of
Mount Independence



Investigating the Past

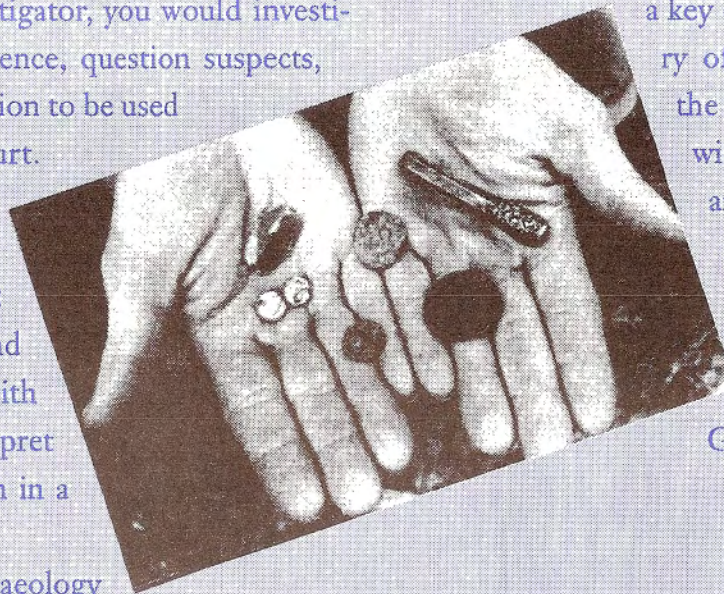
Archaeological and Historical Research of Mount Independence

The clues surround you. Do you know how to use them to unravel the mystery?

If you were a police investigator, you would investigate the scene, photograph evidence, question suspects, collect clues, and gather information to be used in an arrest or in court.

Archaeologists and historians are also detectives, detectives of the past, time sleuths! Their job: to investigate a site, record and photograph artifacts, consult with specialists, recover artifacts, interpret data, and summarize information in a report or exhibit.

This chapter is about archaeology and how archaeologists piece together clues, evidence, of our rich, complex historical past.



You do not need to rush off to Greece or Egypt to visit an archaeological site! Archaeology is a key element in understanding the history of Mount Independence! Although the public often associates archaeology with exotic foreign places, many of the archaeologists and historians investigating Mount Independence believe the natural beauty of the area and its fascinating history equals that of sites on the rocky crags of Greece and the arid desert of Egypt.

Archaeology Is More Than Just Digging

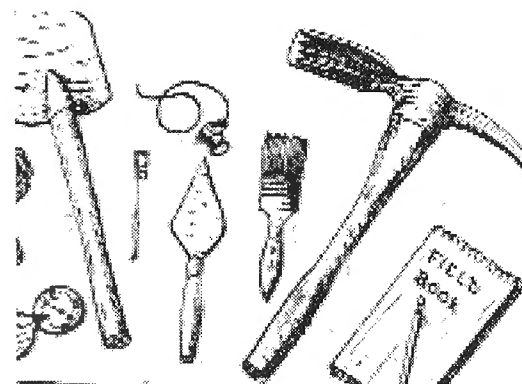
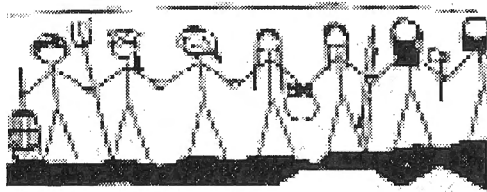
What is archaeology? Archaeology (or archeology) derives from the Greek word "archaios" meaning ancient and the Latin word "logia" meaning to talk or write about. It is a branch of anthropology, the study of human beings, which focuses on the lives of ancient people. It has been said that the true romance of archaeology is not in finding treasures, but in helping people understand their shared past. The Vermont Historic Preservation Plan developed by the Vermont Division for Historic Preservation (1991) states that Vermont's archaeological sites span "three centuries of history and roughly 11,500 years of prehistory. For approximately 97 percent of this past, archaeological sites provide the only source of information for reconstructing a complex and exciting story of peoples' lives in Vermont."

The archaeological process involves thorough, orderly scientific methods. Each archaeological project begins with a research design which establishes questions to be answered by the investigation. Though many people know archaeologists excavate sites, they do not realize each hour of dig time requires tens to hundreds of hours of planning, researching, mapping, recording, photographing, cataloguing, analyzing, and writing. In addition, each archaeological investigation is interdisdiscipli-

nary in that information from many different fields is drawn upon to identify and understand human habitat and behavior. Through archaeology, we learn much about culture (the shared way of life) of people of another time. Archaeologists at Mount Independence have uncovered lost and buried evidence to tell the story of Colonial America in Vermont. Archaeology continues to disclose answers to such questions as: Who occupied the Mount? What did they do? How did they change the land? Where were the Brigades located? How was the military camp laid out? What did the soldiers' wear? What did they eat? What goods did they use?

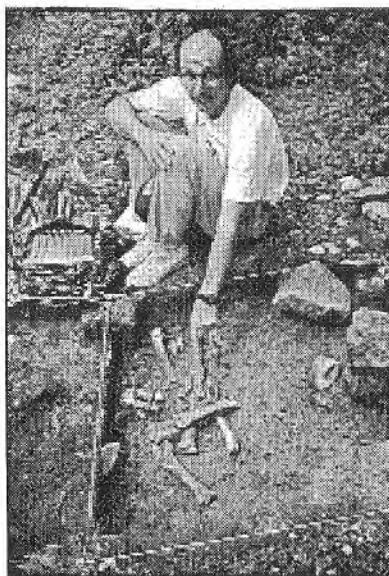
How Does the Past Get Underground or Underwater Anyway?

Archaeologists, like detectives, not only investigate the physical remains (artifacts) that people left behind but also their surroundings (their three-dimensional context). At Mount Independence, evidence and the "fabric" of the many structures, landscape features, and large military equipment and hardware associated with the Revolutionary War period were removed,



destroyed, or recycled. Although much of the frontier outpost site has reverted to forest, artifacts and traces of past human activities remain on the surface, underground, and underwater. You need only to look closely.

An archaeological site is like a time capsule containing a wealth of knowledge about the past. The physical evidence of the past may include blackened earth from ancient campfires,



Archaeological field schools have helped us learn more about Mount Independence. This beef butchering site provided clues about the soldiers' diets.

rocks arranged in a circle for a hearth, postholes representing fence posts, building foundations, walls, wells, gardens, roads, as well as artifacts.

Often, archaeological sites are buried by natural processes such as erosion and weathering caused by rain, frost, and wind. Particles of decaying vegetation, rock, and sediments, such as sand, silt, and pebbles, are moved and dispersed by water, wind, and ice. These settle and form layers of deposits, causing the ground level to gradually rise over time. Human activities also bury cultural resources. Some are deliberate,

such as when cellar holes and trash pits are filled; others are accidental, such as when objects are dropped and lost.

Digging into Mount Independence's Past

Mount Independence has served as an outdoor laboratory where professional historians and archaeologists, teachers, students, and volunteers have conducted scientific investigations. These individuals, many of whom have devoted numerous volunteer hours, are caught up in the mystery and beauty of the site and its past inhabitants.

Archaeological research on Mount Independence combines several methods and techniques of investigation to help understand the different elements of the historic site. None of these methods alone answer all the questions, and each contributes to our understanding of the past: environmental research, archival research, oral history, site location and excavation, artifact analysis, interpretation, preservation, and information sharing.

Native American Archaeological Research

Native American sites on Mount Independence and in adjacent areas along East Creek and Lake Champlain have been the focus of field investigations since the 1930s. The results of these archaeological excavations prove Native Americans occupied this region about 3,000 years ago and possibly as early as 10,000 years ago.

One of the most well-known archaeological projects, sponsored by the Heye Foundation, Museum of the American Indian in the mid-1930s, was the investigation of an Early Woodland village (VT-AD-12 in the Vermont Archaeological

Sites Inventory)), located across East Creek from Mount Independence. The presence of numerous graves dusted with red ocher, a clay-like mineral, caused early investigators to refer to the culture as the Red Paint People. The East Creek site,

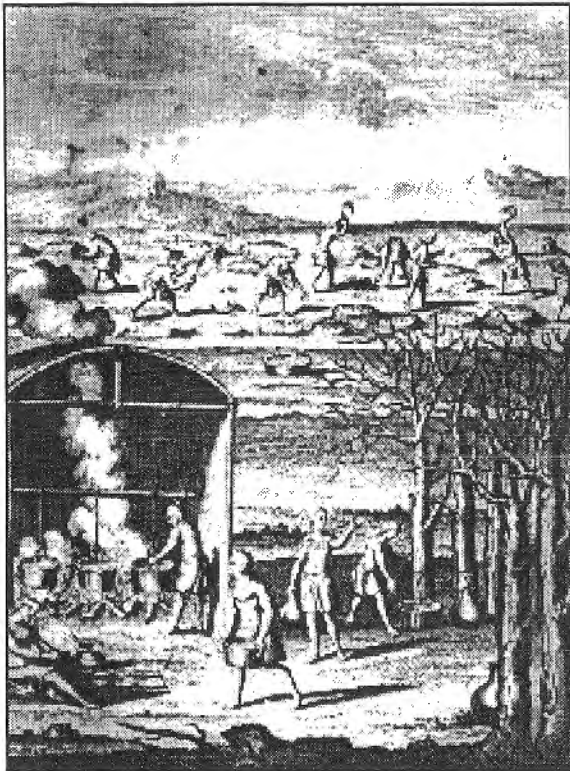
one of only a few known Native American village sites in Vermont, is listed on the National Register of Historic Places.

Other sites attesting to Native American presence on and near Mount Independence include chert quarry sites, hunting or "kill" sites, and rock shelters. One of these, the Bennett site, was excavated in the 1940s by the Champlain Valley Archaeological

By today's standards, there are several problems with these pioneering archaeological projects of the East Creek site and the Mount Independence area. Excavation methods and the lack of written reports for archaeological sites excavated in the first half of the 20th century do not meet current archaeological standards for field methods and documentation. In addition, the archaeological collections were removed from Vermont. In contrast, artifacts from Mount Independence recovered later are housed in the Mount Independence Visitor Center and Museum. Most controversial, however, are ethical issues archaeologists now consider in excavating sites, especially grave sites, held sacred by the Native American community. Today, archaeologists work closely with Native American organizations to understand and respect their traditions.

Additional archaeological field surveys have been conducted in the region for various reasons. For example, in 1972 an archaeological survey was conducted by the University of Vermont Consulting Archaeology Program under contract with the Vermont Electrical Power Company which was considering erecting a nuclear power plant in the vicinity (Haviland 1972).

The diversity and significance of the ancient Native American sites threatened in this region stimulated archaeologists in the 1970s to begin the process of nominating the East Creek Archaeological District, which includes Mount Independence, to the National Register of Historic Places. And although, 47 prehistoric sites had been identified along the East Creek drainage system by 1982, the nomination, which might aid the preservation of significant sites in this region, has been delayed.



Archaeologists have found evidence of Native American inhabitants on Mount Independence. Seventeenth-century engraving of New England Indians making maple syrup and planting corn. From Colin Calloway, *The Abenaki*. Chelsea House, 1989.

Society because it was threatened by a gravel pit construction project.

American Revolution Archaeological Research

For the most part, archaeological investigations at Mount Independence have focused on sites associated with the American Revolutionary period of history.

This phase of investigation, initiated in the mid-1960s by Middlebury College has included the surveying and mapping of surface features and historic sites. The results confirmed the sites' relative location to features identified on historic 18th-century maps.

More recently, the Vermont Division for Historic Preservation and Fort Ticonderoga Association, joint owners of Mount Independence, sponsored several archaeological field surveys and schools as part of a research and interpretive plan for Mount Independence. The archaeological surveys at Mount Independence during 1989 and 1990, in association with the University of Vermont, focused on the remains of the hospital and a 1776 Continental Army cantonment where ruins of soldiers' huts and associated artifacts were found (Starbuck et al. 1990 and 1991). In 1991, Mount Independence hosted its first Junior Archaeological Program involving students in 6th to 10th grade from Addison and Rutland counties. Their investigation focused on a dump site west of the hospital (Charles 1992). The 1992 field school, conducted in association with Castleton State College, focused on the south battery (Starbuck et al 1993). The intent of the field schools was to expand our

overall understanding of Mount Independence and its role in regional history and prepare the site for interpretive development, while introducing students to hands-on archaeological methods.

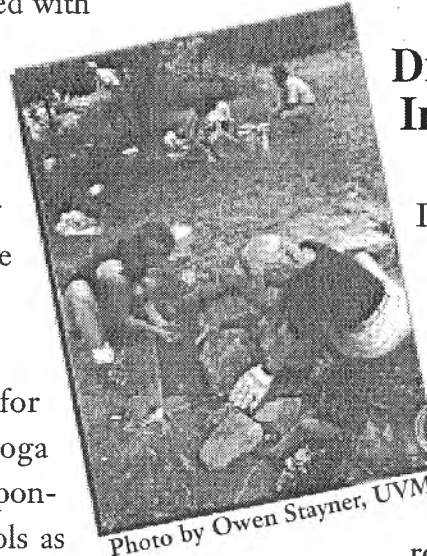


Photo by Owen Stayner, UVM

Diving into Mount Independence's Past

Is there evidence of the history of Mount Independence under water?

Imagine being an underwater archaeologist, your head enclosed in a helmet, as you attach lines and air-filled bags to a Revolutionary War cannon, which then rises to the lake's surface.

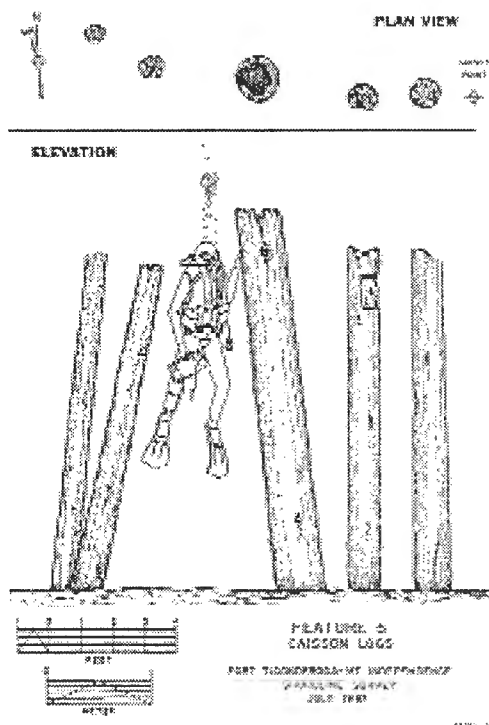
Lake Champlain has played a vital role as a military and commercial highway for thousands of years. The underwater world of Lake Champlain contains evidence of the pre-Colonial, Colonial, Revolutionary, and post-Revolutionary periods. Probing its mysteries has been part of the research design and management plan of Mount Independence. The dramatic architecture and shape of the Mount Independence Visitor Center is a reminder of the importance of the lake-based activities associated with Mount Independence.

The bottom of Lake Champlain has been described as being as mysterious as the surface of a distant planet! Only recently has scientific investigation of the underwater environment been undertaken, conducted by the Lake Champlain

Maritime Museum in Basin Harbor, Vermont for the Vermont Division for Historic Preservation.

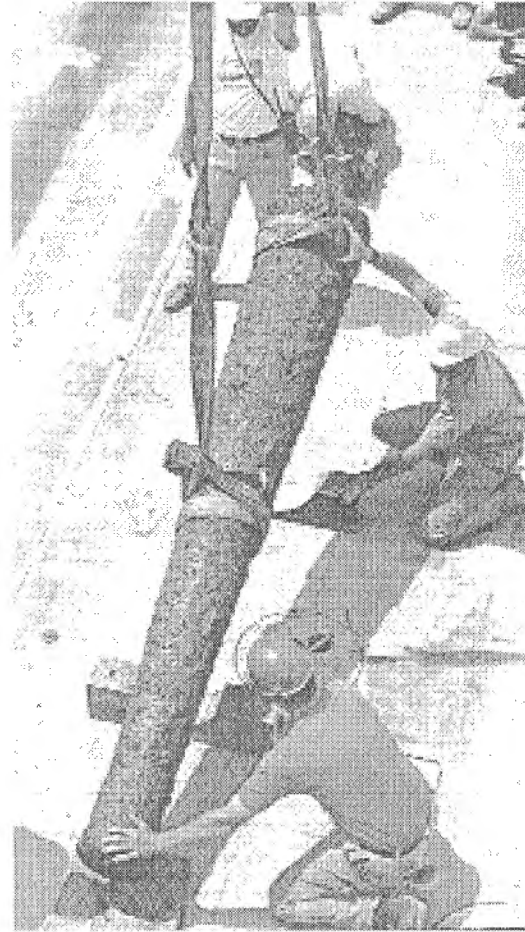
Objects from the Revolutionary occupation of Mount Independence and post-Revolutionary period have surfaced from the depths of Lake Champlain, including sections of a wooden caisson used in construction of the bridge between Mount Independence and Fort Ticonderoga, a flint lock musket, and a 3,000-pound cannon (on display at the Mount Independence Visitor Center).

Coordinated by the Lake Champlain Maritime Museum in conjunction with Middlebury College and the Vermont Agency of Natural Resources, a systematic underwater survey of the entire bottom of Lake Champlain began in 1996. The project was launched partially in response to an invasion of non-native zebra mussels which are



Archaeological diver inspecting caisson posts. Plan and profile by K. Crisman, 1992 Mount Independence Phase One Underwater Archaeological Survey.

encrusting and destroying the lake's shipwrecks and municipal water systems. The survey team is using state of the art remote



On June 10, 1993, a cannon was recovered from the waters of Lake Champlain during an extensive underwater archaeological projects.

sensing equipment, including side-scanning sonar which bounces sonar waves off the bottom of the lake, differential global positioning systems (DGPS), and a remote-operated vehicle (ROV) to produce a mosaic view of the lake floor documenting the lake's geology and the location of submerged cultural resources.

Over 300 cultural targets have been identified in Lake Champlain, including dozens of 19th-century shipwrecks and an 18th-

century Revolutionary War gunboat which was part of the fleet commanded by Benedict Arnold in 1776. The boat was used to

defend the lake from a British invasion and was lost following the Battle of Valcour Island. Continued investigation of these archaeological time capsules is sure to provide more insight into the historical past.

Archaeology and the Law

It is unfortunate that Mount Independence and nearby areas of Lake Champlain have been a popular spot for unauthorized digging and diving, metal detecting, collecting, and looting. Looking for old relics and artifacts may sound exciting, but when they are removed from their context, the result is the loss of information. When "pot hunters" keep artifacts for themselves or sell them for money, artifacts disappear from public view and the information they might have provided is lost. Missing parts of archaeological sites are like lost pieces of a jigsaw puzzle and ripped-out pages of a book! Cultural resources, like endangered animals, are threatened and can become extinct.

In the United States, there are federal and state laws that recognize the importance of cultural resources and the need to protect them. The most important of these include the Antiquities Act of 1906, Historic Sites Act of 1935, National Historic Preservation Act (NHPA) of 1966, the Archaeological Resources Protection Act (ARPA) of 1979, and the Native American Graves Protection Act (NAGPRA) of 1990. These laws were designed to stop the destruction of archaeological sites on public lands and establish penalties for unauthorized collection, damage to sites, and the unlawful sale of artifacts.

Since the 1980s, any construction project on federal land or using federal funds requires an archaeological survey to determine if archaeological resources will be damaged. Vermont, like all other states, has similar laws protecting its heritage archaeological resources.

Excavation of a site should be undertaken only with direct on-site supervision by an archaeologist who meets professional qualifications. However there are many elements of archaeological investigation that can be carried out by individuals and groups which add to the archaeological database, such as documentary research and oral history. The following sections describe the various methods of archaeological investigation.

Archaeological Investigation Methods

Environmental Research

Environment and climate play an important role in determining human behavior. Archaeologists attempt to reconstruct the past environment and determine the ways people interacted with it by identifying and interpreting variations in the landscape, bedrock, and soils. They look for clues of how the landscape was formed, the natural occurrences which changed it, and how it was modified by human activities.

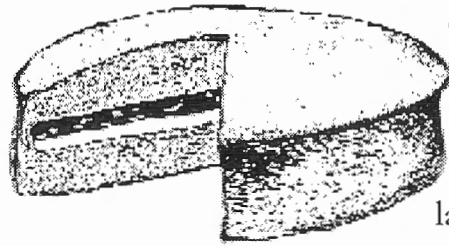
The clues found in soil texture, color, and composition can indicate many things. For instance, ash or fire-cracked rock may indicate a fire pit, dark stains in the soil may reflect decayed wood posts and structures, plow zones, or past vegetation.

Pollen, captured in the soil, leaves a "fingerprint" of the past environment and plant community, a clue to the available food sources of the period. Research at Mount Independence indicates its unique location with lake, wetland, riverine, and upland resources attractive to both animal and human inhabitants.

Stratigraphy and the Law of Superimposition

Like a birthday cake or lasagna, the soil beneath our feet is made up of layers. Stratigraphy is the study of the soil layers or strata. Strata may be formed gradually or quickly by natural forces, such as plant decomposition, erosion, or flooding, or by human activities, such as land filling, construction, gardening, and trash disposal. As a result of these natural or human actions, visible changes appear in the content, color, and texture of the soil. The changes in each individual soil layer, or stratum, within an archaeological site may indicate different time periods or human activities. Soil scientists and archaeologists "read" the layers to determine the age of a site and its artifacts and the activities and contexts which make up the site.

Natural soil layering finds the newest soil layer at the surface and the oldest layer at the bottom. This is called the law of superimposition. Archaeologists use stratigraphy, the study of soil layers, as a relative dating technique to tell the order in



which things were deposited. However, many things, such as tree root growth, frost heaves, erosion, animal burrowing, and human activities, can alter this layering pattern.

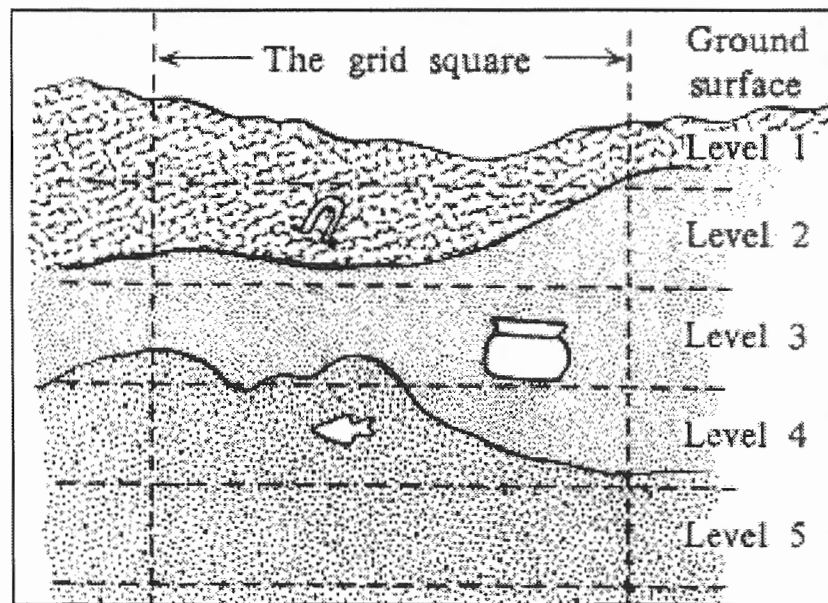
At Mount Independence, we do not see several different soil layers associated with different periods of occupation. The soil is very thin, in many places less than 10 centimeters above bedrock. Remains of historic structures appear as low mounds of fieldstone rubble overgrown with cedar, juniper, grasses, and wild flowers. The shallow soil layer and exposed rock formations are not the best conditions for agriculture and building development; consequently, many areas with archaeological deposits have not been disturbed.

History in the Written Word

Archaeological research includes gathering and interpreting written documents. Archaeologists who study cultures that used writing to share information find written records provide insight into human behavior and the physical world that humans modified. Archaeologists use written sources to identify the location, content, and function of an archaeological site. Sometimes the physical remains confirm the written record, whereas other times the physical evidence challenges it.

Written records, found in libraries, historic society collections, museums, private collections, and town and state offices, are classified as either primary or secondary sources. Primary sources are original written records from the time period being studied. They include original maps, letters, journals,

newspaper accounts, legal documents, and statistical records (e.g., birth and death certificates, censuses, inventories, telephone books). These provide the most reliable information,



pinpoint dates, and describe the lives and events of the time with some precision.

Historians of Mount Independence are fortunate to have uncovered primary sources including letters, maps, diaries, and journals of soldiers who occupied Mount Independence. It is impossible to read the diaries and letters of Mount Independence soldiers without becoming aware of the enormous hardships and suffering they endured due to the weather, hunger, smallpox and other diseases, and lack of clothing, shoes, blankets, medicines, and provisions. Still, they performed the backbreaking work of building, fortifying, and maintaining

Mount Independence.

We also learn from the primary sources that, over time, interpretations of historical places and events change. For example, today we believe Mount Independence played a very successful role in holding off the British invasion, but General Arthur St. Clair's court martial records reveal that the American retreat from Mount Independence was once viewed differently. Many 18th-century Americans considered the evacuation of Mount Independence under cover of darkness to be cowardice, a time when the American rebel defenders failed in their duty.

Secondary sources, such as biographies, encyclopedias, and history books, also add to our understanding. Historic archives include engravings and images, such as paintings and sculptures, created after the Mount's occupation had ended.

When using written accounts, archaeologists try to distinguish between fact and fiction. They must weigh the advantages and problems associated with the use of primary and secondary resources which may reflect artistic license or the bias of the author who reported what he/she perceived to be important.

The Past Informing the Future

Making memories part of the historical record is another aspect of archaeology. Archaeologists and historians gather clues about the past by conducting oral history interviews, talking to people about the past. Although we cannot interview the soldiers who occupied Mount Independence, we can talk to their descendants and knowledgeable longtime residents of the area who have, through the generations, shared memories and

held onto important facts about Mount Independence. "Spoken history" can bring the past to life, revealing the diverse experiences of individuals and personal accounts of real locations. Similar to historic archives, the oral historian must distinguish opinions, legends, and facts.

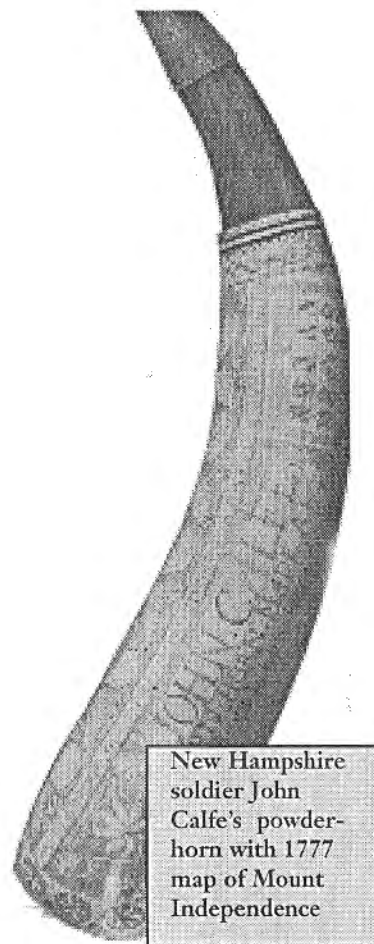
Picture This!

Historical researchers often rely on paintings, drawings, maps, and photographs as primary sources for details of the past and as a point of comparison with modern conditions. As "snapshots" of the time, these visual images capture lifestyles and surroundings, including perishable items. Artifacts found broken at a site may be seen whole and in their proper context in these images.

Although the military occupation of Mount Independence preceded the invention of the camera, aerial and infrared photographs have been studied for clues to past landscapes and features of Mount Independence. Aerial photographs provide a bird's-eye view and may reveal landscape features which are not recognizable at ground level, such as buried and abandoned sites and ancient patterns of soil disturbances. Infrared photographs capture and record differences in heat given off by the landscape, reflecting buried features or different species of plants and growth patterns.

Discoveries Beneath Our Feet

Many individuals believe archaeologists concentrate all their time on digging and finding artifacts underground. However, archaeological fieldwork is undertaken not only to recover physical evidence and artifacts, but also to identify the activities which took place on the site, as well as the site's dimensions, condition (integrity), and significance. In some cases, archaeological fieldwork is the most important method for finding information and understanding our cultural heritage. It can add to or verify the written record, or challenge the written word and expose the accurate story and living conditions.



New Hampshire soldier John Calfe's powder-horn with 1777 map of Mount Independence

Things in Their Place: The Importance of an Artifact's Habitat

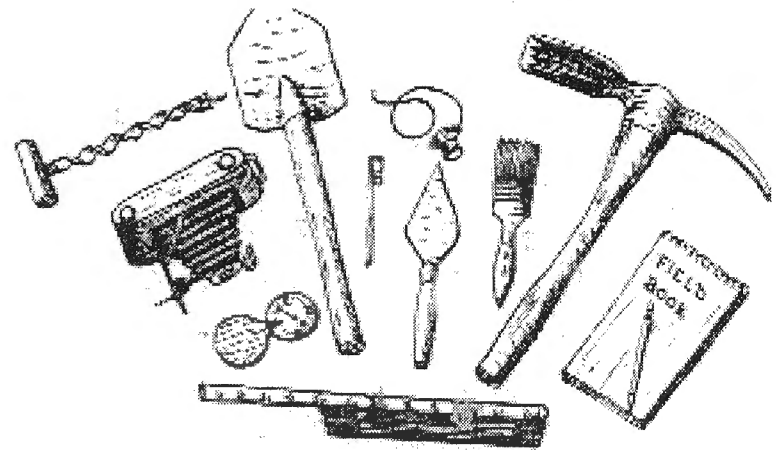
Imagine you are on Mount Independence. Amidst leaves, plants, and tree roots you suddenly spy an artifact that has been hidden from the sun and human eyes for centuries, maybe even thousands of years peeking out of the soil.

For a moment you do not think of the historical details this single object may be part of; there is only the thrill of discovery!

What happens when you remove an animal from its habitat? It often dies. Taking an artifact out of the soil and its site (context), bringing it home as a souvenir, or selling it destroys the opportunity to understand its full meaning and makes it less valuable. This is why archaeologists, scientists, and investigators are unhappy when specimens are removed from their original positioning, their "in situ" location.

Where an artifact comes from and how it relates to other elements in its environment is important. There are many different types of contexts. The spatial context refers to the original recovery location of the artifact, both horizontally and vertically. The temporal context refers to the artifact's place within the time line of history. On Mount Independence, there are also several cultural contexts (e.g., Native American, French, American, British, German).

To archaeologists, artifacts, and their relation to non-artifactual features (such as reddened earth of a hearth or brown stains indicative of a wood floor) are "windows" into the lives of people in the past. Together, artifacts and their associated contextual information provide important pieces of the puzzle that is the past. Imagine if you took the individual parts out of a watch and studied each one separately. Could you tell how the



watch worked? Archaeologists must look at all of the parts in place to understand how they work together.

Archaeological Field Methods

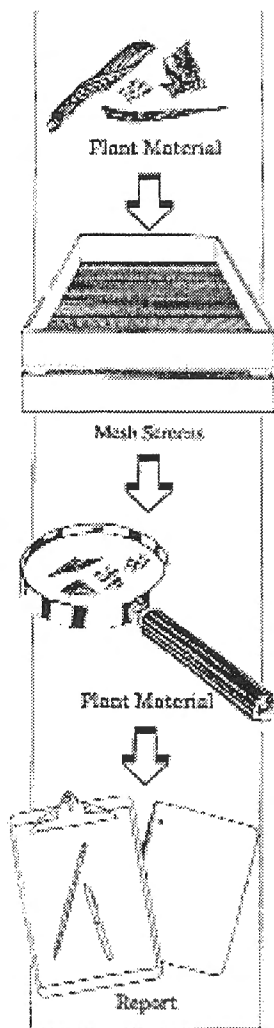
Archaeological sites are found by accident or during surveys such as those required by law before the construction of new roads, bridges, or structures. On Mount Independence, historic research and oral history indicated the existence of an archaeological site. Archaeological fieldwork was undertaken to pinpoint dimensions, content, and the condition of the site.

Archaeologists begin their field investigation by examining the surface of the site and identifying such features as stone foundations, walls, landscape contours, vegetation, and the nearest water source. A map of the area is then created, often with the use of surveying tools, such as a compass, transit, and stadia rod.

Archaeologists also systematically walk the grounds covering all parts of the site, in a manner similar to mowing a lawn,



to record and map the artifacts lying on the surface. Testing below ground is reserved to instances where it is necessary to answer particular questions or save the past from destruction.

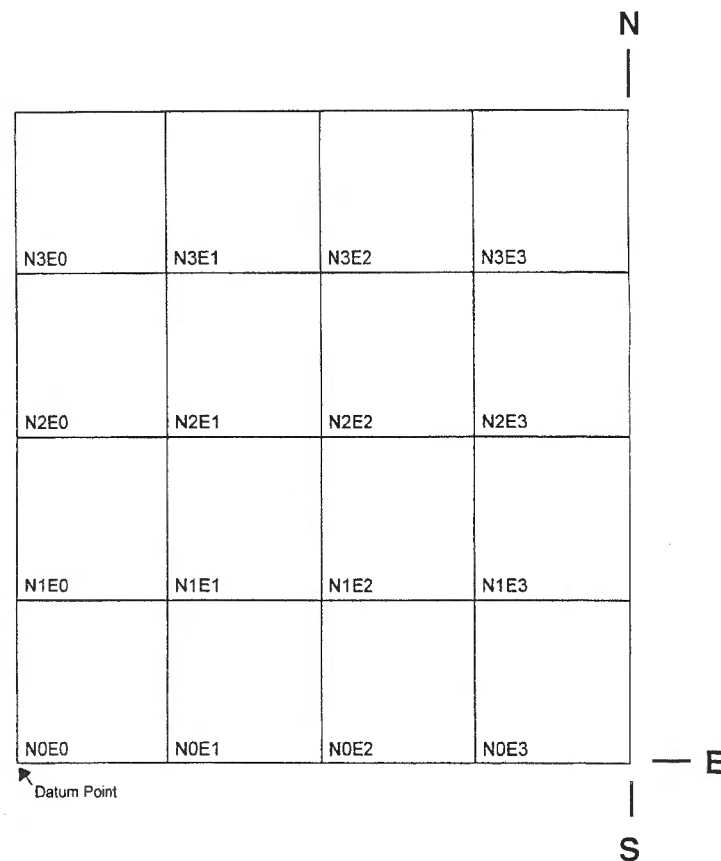


Archaeological excavation is destructive, and once the non-renewable cultural resources are removed from their context, they can never be replaced in the exact position where they were originally deposited.

Once a site map has been drawn, archaeologists establish a fixed point (the datum point) from which all other locations, horizontal and vertical, can be compared and measured. Stakes or spikes are put into the ground at regular intervals from the datum point and string is used to link these points to form a network of squares called a grid. Grids serve as guides for precise mapping and detailed notes. Each square or excavation unit has a label referring to its location and coordinates within the grid. This "provenience" or location information accompanies all information associated with the unit and artifacts recovered from it.

During an archaeological excavation, squares or excavation units, are dug. Within each unit or test pit, each soil layer

or measured level is carefully peeled away as the archaeologist tries to identify and understand its different components. Sometimes only a few excavation units are dug, while other



times many squares may be excavated forming a checkerboard pattern.

Archaeologists use a wide variety of tools from small hand tools to heavy machinery. The most basic tool is the pointing trowel, also used by brick layers and masons.

Archaeologists also rely on dental picks and brushes for fine work, dust pans and buckets to move soil, line levels and plumb bobs to measure artifacts in place, and screens to sift the soil removed from an excavation unit.

Sometimes to recover small artifacts, seeds, and pollen, the soil is water screened or subjected to another process called flotation where the soil is placed in a container of water and the lighter material in the soil floats and is skimmed off.

Record Keeping

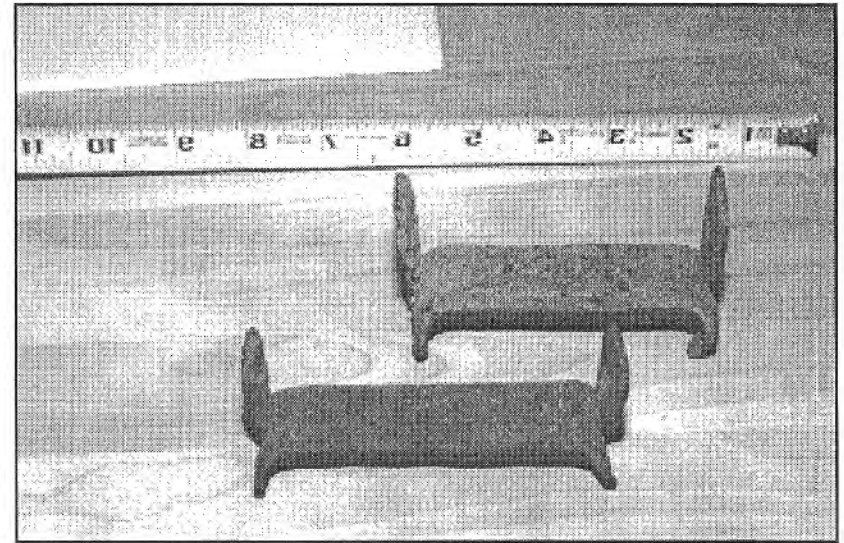
At all times, archaeologists keep records of the data they collect. Without extensive records pieces of the past may be destroyed and lost forever. This vital part of the archaeological process includes the information on the findings of the historical research, the maps, historic photographs, transcripts of oral history, field notes, horizontal floor plans and wall profiles of excavation units, drawings, and photographs. Archaeological records also include questions, hypotheses, and conclusions as in any scientific endeavor. The Vermont Division for Historic Preservation maintains copies of this data and assigns Vermont State archaeological site numbers to sites.

Artifacts: The Most Tangible Clues from the Past

Artifacts, objects made, used, or changed by people, represent the most tangible clues from the past. Archaeologists analyze artifacts and artifact assemblages (a group of artifacts which share specific characteristics such as the same recovery

location, function, material type, date) in an attempt to understand the activities and daily life of people in the past.

What is the artifact made of? When was it made? How



Ice creepers found on Mount Independence were used to assist in travel. They were secured with leather straps that passed over footwear and through holes on either side of the ice creepers. See the set of ice creepers in the Museum Kit available from Mount Independence.

was it used? Why was it discarded? Who made it? Even a single artifact possesses many characteristics (e.g., shape, size, material type, decoration, manufacturing technique) which can provide a vast amount of concrete details about human activities, technology, diet, fashion, shelter, art, music, games, and leisure.

However, artifacts can be misleading, offering biased and incomplete information. Only a fraction of the things used in a person's lifetime ends up in the ground, lost, thrown away, or

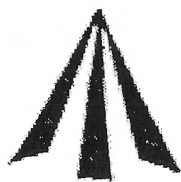
deliberately buried. Perishable parts of these deteriorate. Organic material (objects made of things which were once living, such as wood, leather, plants) rot more quickly than inorganic material like plastic and metal. The "life span" of an artifact and its rate of decomposition depends on its material type and environmental conditions including moisture, temperature, and acidity. In the end, the whole object may be represented only by a small fragment or preserved impression. What remains is not necessarily the most valuable or important elements of a culture.

Artifacts are called "diagnostic" when they are unique and provide important details about where, when, or how they were made or used. For example, the fluted projectile point indicates the Paleoindian period, and the broad arrow sign indicates British manufacture.

What's It Made of?

Analyzing what artifacts are made of can provide information about where the objects were made and how they arrived on the site. For example, Revolutionary War artifacts from Mount Independence include French gun flints, Scottish clay pipes, and English salt-glazed stoneware. These may indicate where occupants of the site came from, as well as trading networks.

Similarly, many prehistoric artifacts identified in the



The Broad Arrow

region demonstrate that Native American communities of the Early Woodland period (100 BC to 900 BC) were operating extensive trade networks, bringing into the area such exotic (non-local) material as quartzite from the coast of Labrador, orange jasper from Pennsylvania, chert from Ohio, copper from upper Michigan, red-brown chalcedony from the Midwest or West, and shell beads from the Gulf of Mexico.

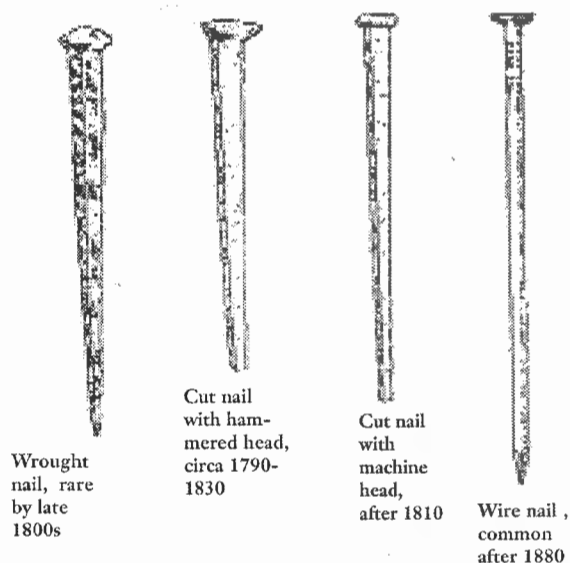
Changes Through Time

People invent new ways of doing things, hoping to change or improve technology, style, and fashion. Archaeologists study artifacts to determine the patterns of changes through time associated with a particular artifact. Information on the evolving pattern or "life" of the artifact can then be used to date a site or a soil layer. The date can be a relative date, or approximate, based on known changes through time.

For example, the earliest nails were wrought nails hammered out of thin iron bars by blacksmiths. By the early 1800s, early machine cut nails were cheaper to produce and replaced hand wrought nails. Wire nails began to be made around the time of the Civil War and were in common use by the 1880s.

If we understand how an object has evolved, it can be the key to determining the relative age of the associated deposit or site.

Some diagnostic artifacts, such as coins, display the date they were manufactured and prove they were lost or discarded after their date of manufacture. Archaeologists use a Latin



phrase, "*terminus post quem*," in referring to the "date after which." The terminus post quem for a layer is based on the earliest date of manufacture for the most recent object in the assemblage.

Dated artifacts, such as corner stones on a building, can also provide absolute dates. It is not unusual for portions of artifacts or features from a site to provide an absolute date through radiocarbon (C-14) and potassium-argon dating techniques. These, however, have not been used at Mount Independence because of their expense and wide margin of error which might range from 250 to 500 years.

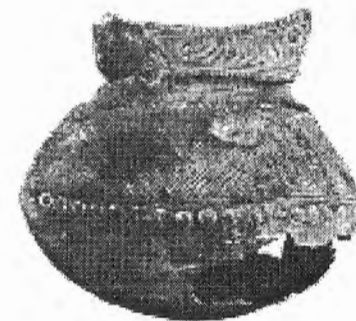
How Was It Used?

Archaeologists analyze the characteristics of an artifact, including shape, size, material type, decoration, manufacturing

technique, to determine the function of the artifact and how it was made and used.

For example, woodworking activities are indicated by axes, adzes, and gouges. Although fish bones do not preserve well, evidence of fishing is provided by fishhooks and netting needles. Similarly, although edible plant remains are usually not preserved in the archaeological record, milling stone fragments indicate the gathering and processing of nuts, seeds, and plants. In addition to artifacts, such as gun parts or stone knives, which may provide evidence of hunting activities, analysis of animal bones can indicate butchering practices and preferred species, sex, and age of animals hunted.

Even when an artifact has deteriorated, a site may contain clues in the soil, such as fabric impressions, to indicate the past presence of cordage and textiles.

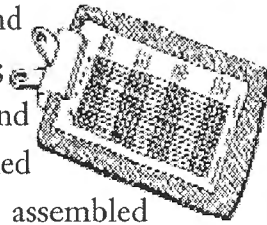


Managing the Archaeological Collections

Collections management is one of the final steps in the archaeological process. It is important to ensure that documents and artifact collections recovered during archaeological investigation are properly stored and available to researchers and the public. To prevent deterioration, the artifacts of Mount Independence are monitored and carefully stored in acid free boxes within a climate-controlled environment at the Visitor Center.

Reporting

An archaeologist's job does not end after field investigations are completed; it is necessary to evaluate the evidence and share the information. Clues obtained through different research methods are assembled and, like connecting dots, they create a patchwork picture of the past.



Archaeologists share their findings with the professional and public community in a site report, exhibit, or video documentary. Reports describe the methods of investigation and present an evaluation of the site accompanied by maps, photographs, and drawings to illustrate the process and conclusions.

Unsolved Mysteries of Mount Independence

Although the investigation of Mount Independence has continued for many decades, archaeologists and historians are only beginning the process of piecing together and understanding the site's past. The historic and archaeological research is ongoing, and each new detail adds information and "color," sometimes changing our understanding and interpretation of the past. For example, none of the historic or contemporary maps show the locations of all the cabins, tents, shops, military structures, lookout posts, dumps, or their internal features (e.g., chimneys or fireplaces, walls); more sites need to be identified and their location and content verified. As remote sensing and

other scientific techniques (e.g., ground penetrating radar, echo-sounding, and magnetometry) are invented and refined, archaeologists will be freed from the need for extensive digging to locate buried features and artifacts.

The unsolved mysteries of Mount Independence are a source of interest and wonder. Many questions may never be answered about the lives of real people associated with Mount Independence. Nevertheless, archaeology is an important key to begin unlocking secrets of the past. Through archaeological research at Mount Independence, we can begin to imagine what life was like for the soldiers, the look of the picket fort, and the sound of Lake Champlain splashing against the Great Bridge.



Here Today, Gone Tomorrow: The Threats to Mount Independence

Like natural resources, archaeological resources are fragile and require care to preserve them. They are being destroyed at an alarming rate and, unlike some natural resources, an archaeological site is non-renewable. It cannot be replaced or rebuilt and its information will be lost forever! As early as 1886,

William Rann lamented in the History of Chittenden County, Vermont "a great deal of the most valuable material [from the past] has been irretrievably lost, because those who chanced upon it saw no value in it, and either lost or destroyed it."

There are many things which threaten archaeological resources including natural processes, such as erosion, and natural disasters, such as floods, rock slides, hurricanes, earthquakes, and volcanoes. We can not protect sites from being damaged or destroyed by many of these natural causes.

We can, however, restrain deliberate and accidental human activities that threaten archaeological sites, such as fire, pollution, deforestation, deep plowing, overgrazing, unplanned development and construction, vandalism, and other practices that scar the land and erase the evidence contained in an archaeological site. We can also promote high-quality research that is vital to discovering, evaluating, and interpreting information to assist the management and preservation of the cultural resources.

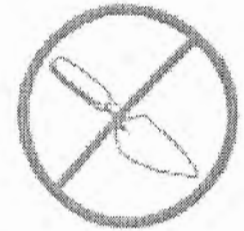
What Can You Do?

Since we do not know where all the archaeological sites on Mount Independence and in Vermont are, how can we protect them from being disturbed or destroyed?

Be aware and concerned: take an active role in the study, protection, and preservation of our non-renewable cultural resources.

- Do not risk being the individual who ruins the clues scientists need to figure out the past. Do not dig, metal

detect, or artifact collect on Mount Independence or another archaeological site unless you are working in cooperation with a sanctioned project and a trained archaeologist. **Digging On Your Own Can Be Hazardous to History!!** If you find an artifact, leave it in place and instead of digging the site and possibly disturbing important clues, contribute to the information. Learn all you can about it.



- If the artifact is on your property or you have permission to remove the artifact, draw a map of its recovery location, carefully write down where it was found and how to get there. If the site is threatened, explain how the destruction is occurring. Trace or draw the artifact and/or photograph it. Record information about its material type, shape, dimensions, etc. Libraries are a rich source of information about archaeology and history. The Internet also offers opportunities for learning via computer.
- Report this information to the property owner, your local historical society, and other authorities, such as the State Archaeologist, Vermont Division for Historic Preservation, National Life Building, Drawer 20, Montpelier, VT 05620.
- Teach others to **Respect Our History!!!** Be a leader and teach others to respect the regulations. Stay on the

trails when hiking Mount Independence. Report unlawful collecting and digging to the property owner, or other authorities. Archaeological resources do not belong to any one person; we all have a responsibility to learn about and preserve the past. Help assure that visitors of future generations will have the same privilege of visiting Mount Independence.

- Join historic and archaeological societies which support legislation and preservation activities and promote an appreciation of the past. Volunteer to conduct research and be part of preservation efforts.
- If field investigations are necessary, for example, on a site which is threatened by construction or erosion, it should be undertaken only with direct on-site supervision by an archaeologist who meets federal and state professional qualifications and guidelines.
- During Vermont Archaeology Week, set up an archaeological center in your school, gather resources, books, maps, photos, artifact reproductions. Pick a site, conduct research, and display information on a bulletin board. Make and display a class mural illustrating the different facets of archaeology.
- **Adopt an Artifact.** As an individual or group, raise money to fund conservation of one or more objects recovered from Mount Independence. Selected items that required conservation have included a knife

blade and fork, regimental or civilian buttons, cuff links, porcelain cup, ice creepers, fishhook, buckle, and case bottles. Costs range from \$160 to \$1,000. Contact: Regional Historic Sites Administrator, 7305 VT Rte 125, Addison, VT 05491, 802-759-2412.

Resources

Charles, Sheila, The 1991 Mount Independence Junior Archaeology Program and Excavation of Site 203 (VT-AD-203). Vermont Division for Historic Preservation, Montpelier, Vermont, 1992.

Haviland, William A. and Marjory W. Power, The Original Vermonters: Native Inhabitants, Past and Present. University Press of New England, Hanover, New Hampshire, 1972.

Landes, Robin S., and Joanna T. Moyer, Archaeologists at Work: A Teacher's Guide to Classroom Archaeology. 2nd edition. Alexandrian Archaeology Publications, Number 48. Alexandria, Virginia, 1996.

McIntosh, Jane, Archeology. Eyewitness Books. Alfred A. Knopf, New York, 1994.

Parren, Lauren Kelley, A Teachers Guide to 12,000 Years of Vermont's Past. Ellis L. Phillips Foundation, 1987.

Starbuck, David R., Dennis E. Howe, William Murphy, and Gordon DeAngelo, Mount Independence 1989 Completion Report. Vermont Division for Historic Preservation, Montpelier, Vermont, 1990.

Starbuck, David R., Dennis E. Howe, William Murphy, Gordon DeAngelo, Barbara DeAngelo, and Bruce Hedin, Mount Independence 1990 Completion Report. Vermont Division for Historic Preservation, Montpelier, Vermont, 1991.

Starbuck, David R., William C. Murphy, Daniel H. Weiskotten, Frank Schlamp, Sheila Charles, Donald Wickman, Bruce Hedin, Gordon DeAngelo, and David Pinkham, Mount Independence 1992 Completion Report. Vermont Division for Historic Preservation, Montpelier, Vermont, 1993.

Sterling, Mary Ellen, Archaeology: Thematic Unit, Teacher Created Materials, Huntington, California, 1994.

Objectives:

- To teach students to distinguish between inorganic and organic material and understand how they deteriorate differently.
- To learn the principles archaeologists use in interpreting artifact collections and identifying the presence and absence of different material types.

Target Ages:

Grades 3 - 8

Class Orientation:

Pairs, teams, whole class

Time Needed:

20 minutes

Materials:

- Large sheets of paper for drawing
- Full body forms
- Crayons, markers

You Can Take It With You

Learning About Organic and Inorganic Materials

Introduction:

Archaeological sites are, for the most part, made up of durable, long-lasting inorganic objects. These objects were never alive and contrast with organic material, such as hair, wood, or leather which derive from animals or plants. Organic remains, however, tend to decompose or rot more quickly than inorganic matter unless preserved in extreme environments like bogs and polar or desert regions.

Inorganic objects represent the vast majority of artifacts recovered from archaeological sites. Archaeologists use the surviving artifacts and their context to learn about an individual, their culture, and the manner in which they lived.

For example, consider what archaeologists might find and what would remain 100 years from now if you were buried in what

you are wearing and carrying. Or if you wish, pretend you are an American or British soldier on Mount Independence, or from another culture or time period (e.g., Egyptian pharaoh, Chinese emperor, Viking sailor). Consider the inorganic objects that would survive as evidence.

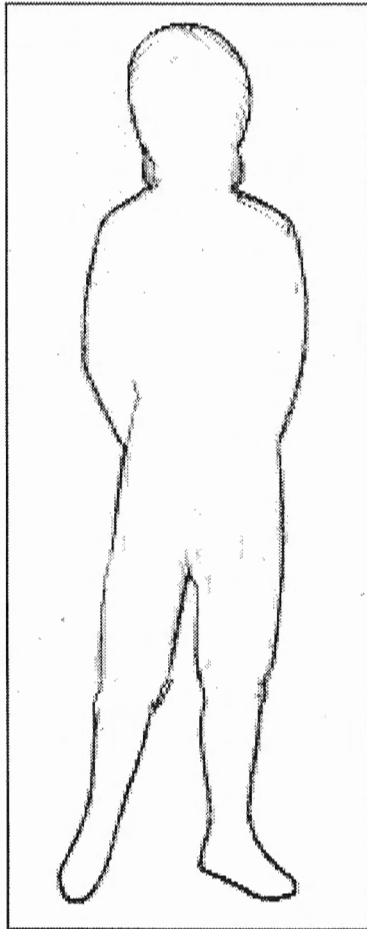
What clues remain which supply evidence of how you died, your culture, the related time period, the trade patterns of the society, your status or prosperity, your beliefs, religious affiliation, diet (e.g., condition of teeth), health, interests, sex, age, marital status, occupation, the type of clothing you were wearing (e.g., zippers, buttons), and other information?



Buttons, depending on what they are made of, can be organic or inorganic.

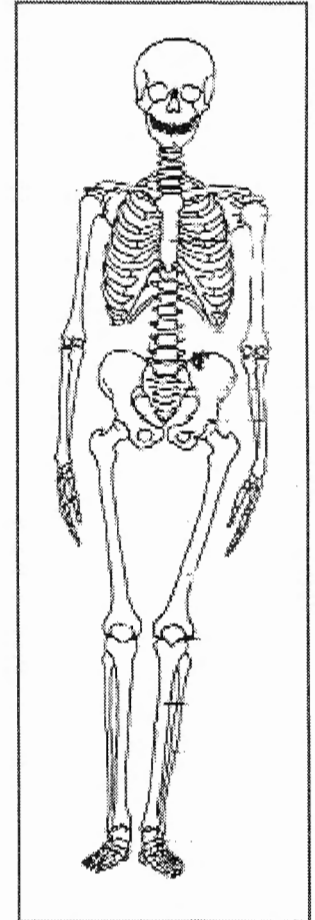
Supplementary Activity:

In many cultures, including our own, it is customary to include burial goods with the deceased. Make a list of what you would like to take with you! Share this with the class.



Activity

- One individual should lie down (in any position) and have a partner draw the outline of their body on paper.
- Each individual can then draw and label the inorganic objects they are wearing (or pretend to be wearing or associated with) which would most likely survive.
- Label should indicate the material type(s) of the object. Inorganic objects are often made of plastic, rubber, glass, ceramic, and metal. Be sure to indicate any other pertinent information, such as broken bones and braces.
- Have teams or class record, then discuss the surviving evidence. How was the figure positioned? What clues provide information about the individual, their culture, their activities?



Objective:

To excavate a mock archaeological site and record and document the process

Target Ages:

Grades 3-8

Class Orientation:

Individual or teams

Time Needed:

Three 20 -minute sessions

Materials:

- 1/2 gallon plastic milk or cider jug with top cut off (one per student)
- 4 distinct soil materials (e.g. sand, perlite, potting soil, kitty litter, soil) to represent different soil layers
- Artifacts that student believes represents him/her
- Masking tape
- Plastic spoons
- Ruler (preferably metric)
- Bottle Site Map and Field Log Form and Artifact Analysis Work Sheet

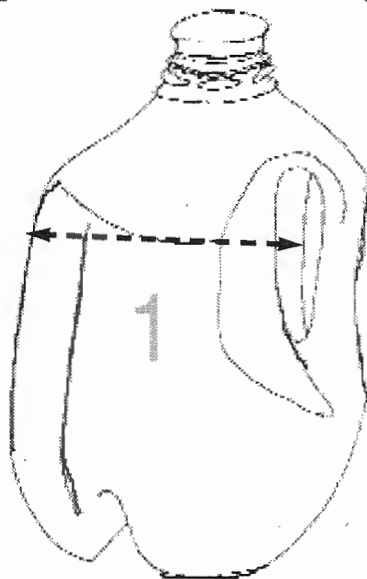
Message In A Bottle

Recording Archaeological Finds

Introduction:

Imagine the thrill of discovery in your classroom when you excavate your own archaeological site, a time capsule representing an actual individual!

But first, create a mock archaeological site that reflects you as an individual and your culture. Then trade bottle sites and try to identify your classmate by the objects enclosed in their capsule. Like a real archaeologist, as you excavate the site, you need to keep a precise record and analyze the artifacts to try to determine characteristics of the individual associated with them.



Drawing by Dean Ladago
7th Grade, Otter Valley Union
HS, Brandon, VT 1997

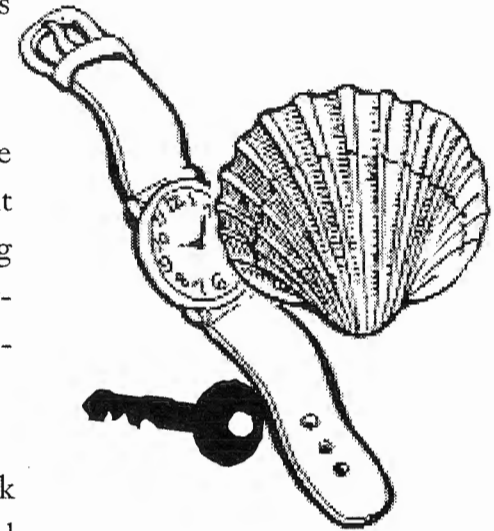
Activity

- Make a time capsule out of a 1/2 gallon plastic milk or cider jug by cutting the neck off the bottle. Each bottle should have a site number written in permanent marker on the bottle. (Your teacher may want to keep a record of the site numbers and associated names.)
- Gather objects from home which reflect who you are, including your family, background, current interests. For example, you might want to use small articles such as keys, miniature figurines or toys, animal fur, food labels, toy packages, pictures from magazines, photographs, original drawings or writings.

Suggested Readings & Resources:

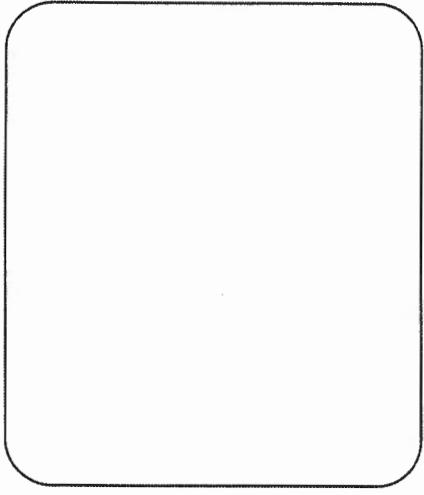
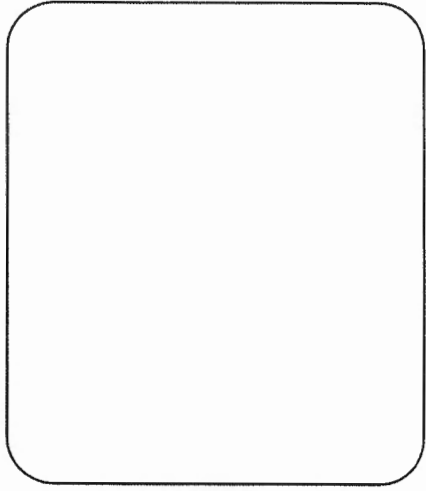
Landes, Robin S. and Joanna T. Moyn. Archaeologists at Work: A Teacher's Guide to Classroom Archaeology. 2nd edition. Alexandrian Archaeology Publications, Number 48. Alexandria, Virginia, 1996.

- Choose which of the four distinct soil layers your objects will be placed to create your archaeological site. Will they be grouped in different layers according to what they are made of (material type), date (e.g., things associated with the date you were born at the bottom, things associated with you now at the top), activity type (e.g., sports, home life, food consumption), or another characteristic. Place objects within the 4 different layers in your mock archaeological site.
- Exchange time capsules among participating students in your class.
- Excavate the time capsule/mock archaeological site carefully with a spoon. Record, map, and document what and where you found it. Measure depths (using metric increments) at which the artifact were discovered and note the soil layer. Use the two forms provided (Use Form 1 for lower grades).
- Analyze the information associated with the mock archaeological site and try to determine who created it.



Name: _____

Bottle Site Map and Field Log

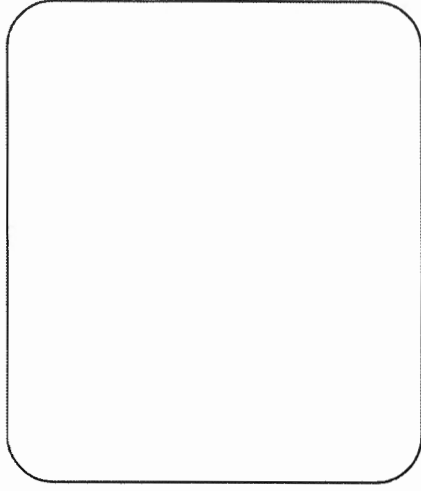


Level 1

Depth: _____

Soil Type _____

Artifacts Found: _____

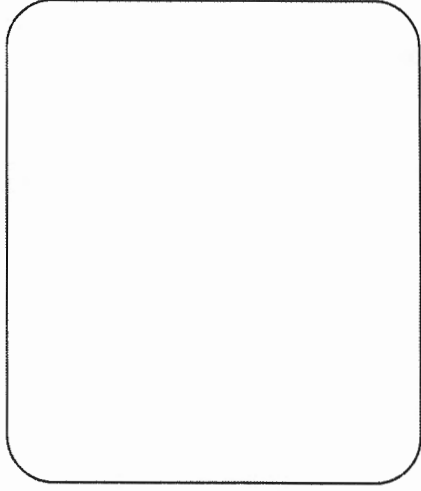


Level 2

Depth: _____

Soil Type _____

Artifacts Found: _____



Level 3

Depth: _____

Soil Type _____

Artifacts Found: _____

Level 4

Depth: _____

Soil Type _____

Artifacts Found: _____

Name: _____

Message in a Bottle Artifact Analysis

1. Complete Form

Level #	Soil type/Depth	Artifacts Recovered

2. What are most of the artifacts made of?
3. What is the newest artifact? What level was it found in?
4. What is the oldest artifact? What level was it found in?
5. What differences do you see between the different soil layers?
6. What activities are associated with this individuals?
7. Are there any dates associated with this individual?
8. Are there any places associated with this individual?
9. Are there any other people associated with this individual?
10. Do any artifacts suggest they were more likely to be used by a male or female? Which ones?
11. This Archaeological Bottle Site represents

Objectives:

- To have students work with cardinal directions within a grid system.
- To show how archaeologists use a coordinate system when mapping a site and artifacts within the site.

Target Ages:

Grades 3 - 8

Class Orientation:

Individual

Time Needed:

20 minutes

Materials:

- Rulers
- Pencils
- Colored pencils or markers

The Mapping of Site 204

Learn How Archaeologists Work

Introduction:

Historical research and archaeological excavation of Site 204, located on the southwestern plateau of Mount Independence, indicated it represents the remains of a 4-meter (12-foot)

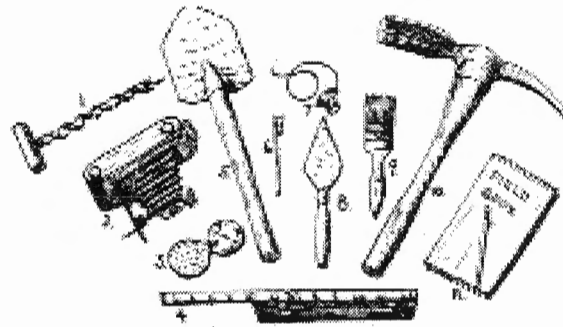
by 6-meter (18-foot) log hut. In 1776, a New Hampshire Regiment in the Second Brigade, commanded by James Reed camped in this area

What do we know of the life of a common soldier? Archaeological research of Site 204 has contributed some information to answer this question and help us understand how a Continental soldier lived.

The physical arrangement of the soldiers' quarters met standards of the Continental Army and,

as such, would have been similar to structures at Valley Forge (circa 1777-1782) and Morristown, New Jersey (circa 1779-1780). Apparently the log huts were clustered in groups of four and aligned in three east-west rows. These huts differed from the officers' quarters which were built of sawn boards and wrought iron nails.

The following Site 204 map is a floor plan of a partially-excavated log hut. The map's central focus, or datum point (NOEO), is a large flat hearth stone, cracked and reddened by the heat of many fires. Other rocks and artifacts (represented by a letter of the alphabet) are scattered about the site. Help analyze this site and identify the recovery locations of artifacts found in Site 204.



Archaeologist's Tools

Activity:

- Copy Map 204 (Enlarge, if possible). Connect the points on the floor plan to form the map grid.
- Each square within the grid has 2 coordinates according to the number of units north or south and east or west from the datum point (N0E0). For example, unit N2W1 is north (up) 2 squares and west (left) one square. The unit label often appears in the northeast (upper right) corner of the square on the map. Write the correct grid coordinates in each square on the map to help answer the following questions.
- Color code several of the artifact types on the map to help reveal their location and any existing patterns. For example, highlight or place a colored dot before the letter "O" on the legend and then draw a circle using the same color marker around each "O" on the map where a button was found. Choose different colors for glass, pottery, musket balls, and gunflints.

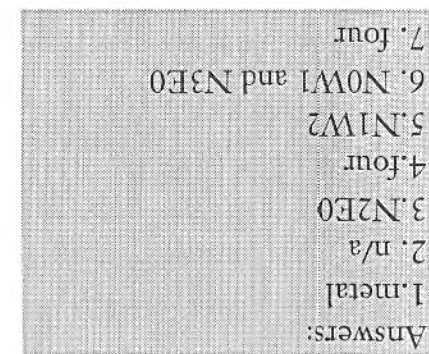
1. What type of artifact was found in the trash pit? _____
2. The trash pit also contained 302 bone fragments. Draw a bone in the trash pit.
3. What unit contains a piece of pottery? _____ Draw a pottery "sherd" in this unit.

4. Buttons were found in _____ units.

5. Which unit had the most buttons? _____

6. Which two units have musketballs and gunflints? _____ and _____

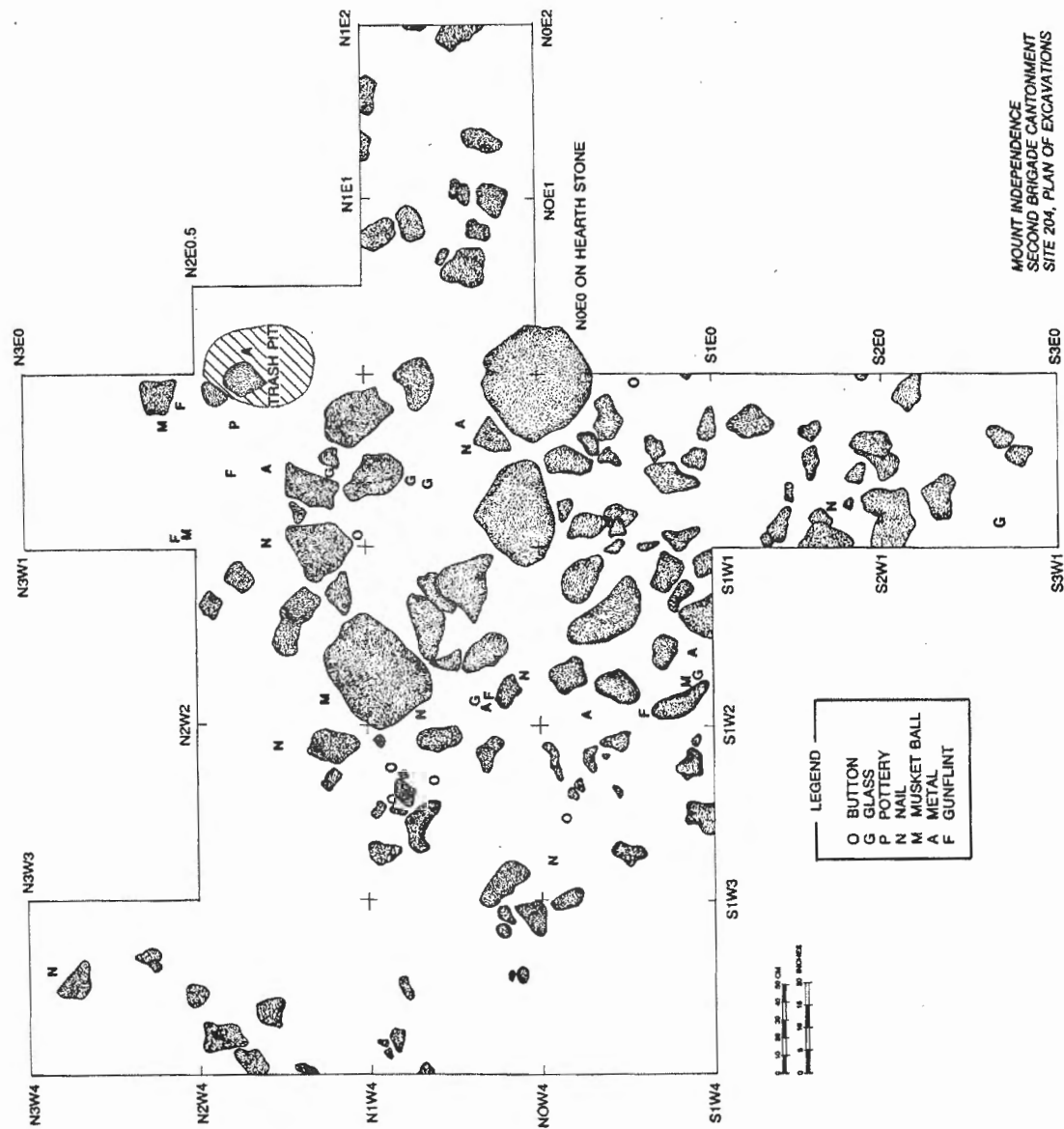
7. Glass was found in _____ units. Draw bottles in those units.



Mount Independence

Second Brigade Cantonment, Site 204

Plan of partially excavated remains of a soldier's hut
Map by Dennis Howe



Objectives:

- To conduct an oral history interview and gain experience in communication.
- To gain skills researching history outside of the classroom and textbooks.
- To help students connect with the past through personal views of life revealed by adults.
- To practice recording and reporting information.

Target Ages:

Grades 3-8

Class Orientation:

Individuals or Pairs

Time Needed:

20 minutes

Materials:

- Paper
- Pencil

Optional:

- Tape recorder or video machine

Listen to the Past

Introduction:

Have you ever wondered what it was like THEN, as compared to NOW? Ask an older relative or senior citizen about their experiences, their family history, the community, events of the past, your shared heritage, and/or what changes he or she has witnessed over time.

BUT WATCH OUT! The past is about to become alive before your eye and ears! And its about real people and neighborhoods!

Activity:

- Schedule an interview with an adult, preferably 55 or over.
- Make a list of questions you wish to ask. Try to avoid numerous dead end questions that require only a "yes" or "no" answer.

Here are some examples:

- Where were you born?
- Where did you grow up?
- Where did you go to school?
- Did you live anyplace else?
- Why did you move?
- What did you take with you?
- What was your occupation? Your parents' occupations?
- What are some special memories of activities or events with your family?
- Special memories of particularly difficult times?
- Were you married?
- Did you have children?

Suggested Readings/Resources:

Baum, Willa K. Oral History for the Local Historical Society. American Association for State and Local History, Tennessee.

Baum, Willa K. Transcribing and Editing Oral History. American Association for State and Local History, Tennessee.

History Channel, Hometown History. The Hometown History Manual. History Channel, New York.

Ives, Edward D. The Tape-Recorded Interview: A Manual for Field Workers in Folklore and Oral History. The University of Tennessee Press, Knoxville, Tennessee, 1980.

Sharrow, Gregory. Our Town: Recording and Presenting Local History and Folklife—Teacher Handbook. Vermont Folklife Center, Middlebury, Vermont, 1990.

While on the Mount:

Read the personal accounts of individuals who occupied the Mount.

- How is life different now?
- What contributions do you believe people from your community made to Vermont and/or American culture?
- What important or interesting historic events did you witness or participate in?
- Practice asking questions and using your recording equipment. Be sure to have backup batteries and film.
- Arrive on time to the interview. Be polite. Speak clearly. Use eye contact.
- Make a record of your interview. A 20-minute interview is quite adequate. Take notes, tape record, and/or video tape the interview. Make sure your record includes dates, field notes on interview location and individuals present, interviewee's reactions and responses to questions including specific details on locations, occupations, and reasons for immigration, if known (e.g., religious persecution, war, economic hardship, famine, adventure, marriage). Do their surnames reflect their homeland or were they anglicized? Use maps or photographs to illustrate the information you acquired in the oral history interview. Allow the interviewee to digress and tell special stories they wish to share.
- Be sure to thank your interviewee for their time, cooperation and the information shared.
- Write a report or story, draw a picture, learn a poem or song, make a costume or food representing an aspect of the heritage or "spoken history" shared.

Objective:

- To solve riddles about archaeological research by finding the answers to mathematical equations.

Target Ages:

Grades 3-8

Class Orientation:

Individual or Teams

Time Needed:

20 minutes

Materials:

- Pencil
- Electronic calculator
- Imagination

Calculated Archaeological Riddles

Introduction:

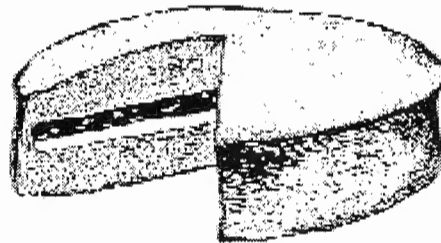
Archaeologists, like many scientists, have mathematical problems to solve, such as calculating site dimensions, artifact distribution and percentages, and even radio-carbon deterioration rates. They often use calculators to help solve some of these mathematical problems. Use your calculator to solve the following math equations. Then turn your calculator around (upside down) to read the answer which will fill in the blank for the archaeological riddles.

Activity:

- Archaeological sites are found on _____, in valleys, underwater, and in countless other locations. Divide 985 by 5. Add 459. Multiply by 2. Answer: _____
- Archaeologists do not look for treasure and _____, but for clues about the lives of people in the past. Subtract 4,352 from 10. Divide by 8. Answer: _____
- If you _____ something, it might be found by archaeologists in the future. Multiply 7060.5 by 2. Divide by 3. Subtract 1200. Answer: _____
- _____ and nuts can provide evidence of historic plant communities and diets of past inhabitants. Multiply 402.68 by 5. Multiply again by 5, then 5 again. Answer: _____

Notes:

- Archaeologists _____ test pits to recover artifacts and information about the past. Multiply 400 by 3. Subtract 590. Answer: _____
- Archaeologists work _____ or in teams investigating sites. Multiply 0.095 by 3. Add 0.13. Subtract 0.31. Answer: _____



- Like a birthday cake or lasagna, the _____ beneath our feet is made up of layers. Multiply 96 by 52. Add 3,000. Subtract 887. Answer: _____

ANSWERS:
1. 57714, hills
2. 0.706, gold
3. 3507, lose
4. 50335, seeds
5. 610, dig
6. 0.705, solo
7. 7105, soil

Create a Culture You Can Dig

Objective:

To simulate some of the stages of an archaeological investigation-- surface mapping, artifact recovery, and interpretation.

Target Ages:

Grades 3-8

Class Orientation:

Teams or whole class

Time Needed:

Three 20-minute sessions

Materials:

- Chalk
- Masking tape
- Artifacts for your site
(gather or create)

Introduction:

Here's your opportunity to reconstruct a past culture or create a new one!

Join a team of archaeologists and begin a field investigation of a mock archaeological site. Conduct your archaeological investigation using systematic scientific methods. Examine and map the surface of your site and recover the exposed artifacts. Then, analyze your findings!

Activity:

- Find a desirable open area, 4- by 4-meters to serve as a mock archaeological site. Go outside to a paved area of the playground or push back desks to create the space.
- Measure a 4- by 4-meter area and, with chalk or masking tape, mark off the perimeter and interior lines to form 1-meter units within a grid system. Remember each one meter square has a diagonal of 1.42 cm.
- A sample site map follows. The original point of reference (datum point 0/0) is in the lower left corner and each square has been assigned a label referring to its location and coordinates within the grid. This 'provenience' or origin information accompanies all information associated with the unit and artifacts recovered from it.

Suggested Readings/ Resources:

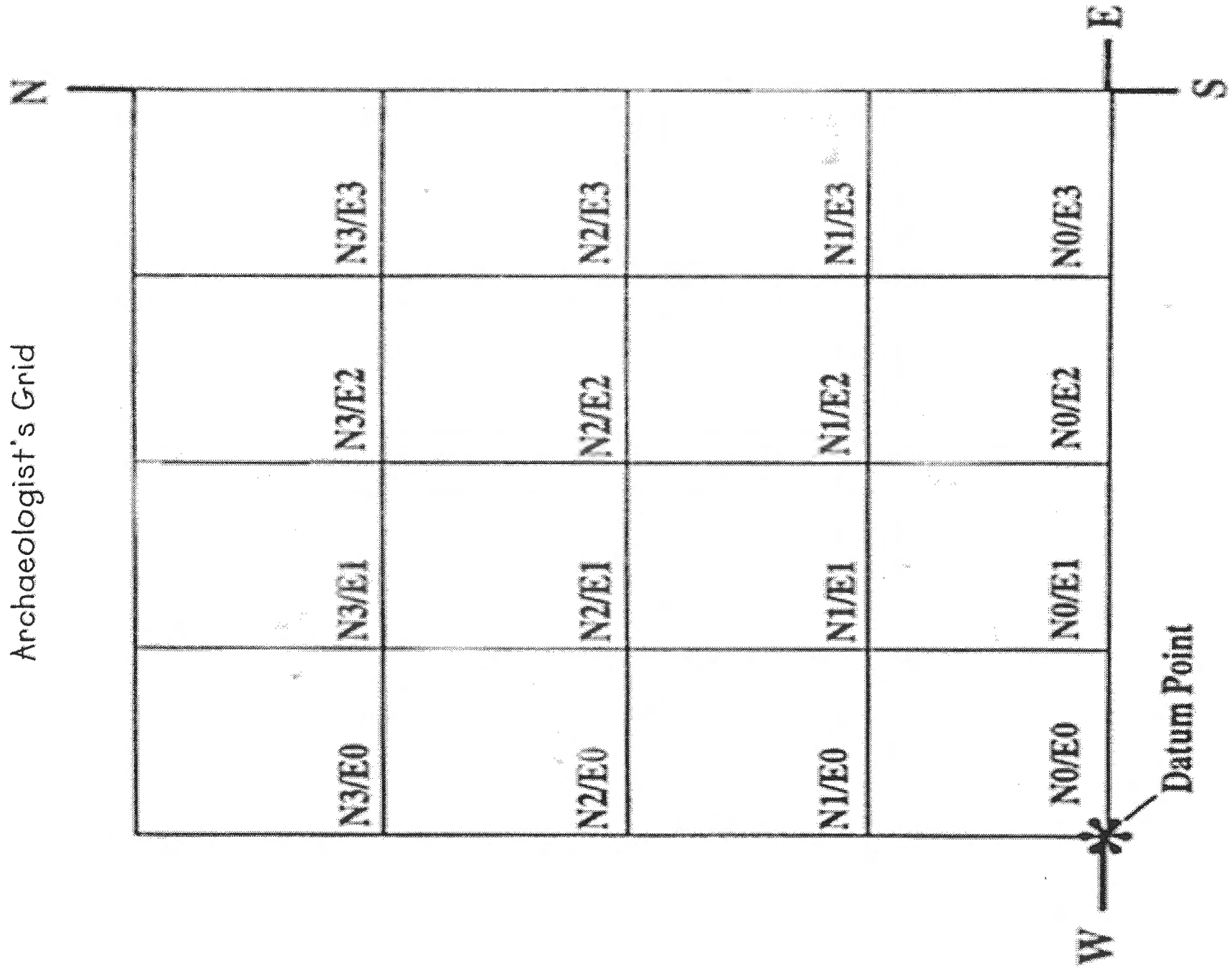
Sterling, Mary Ellen, Archaeology Thematic Unit, Teacher Created Materials, Huntington, California, 1994.

While on the Mount:

In conjunction with a museum guide, use artifacts from the artifact cart to perform this activity.

- Separate the class into two teams.
- Each team should meet to determine what type of site or culture (from the past, present, or future) they wish to represent. Keep this information secret from the other team. The following are some suggestions for sites: American revolutionary war hospital, bridge site, soldiers' encampment or farmstead on Mount Independence; school and gymnasium, pizza parlor, etc.
- Each team should gather or create appropriate artifacts reflecting your site and culture. Include artifacts to indicate the culture, vegetation, wildlife, and environment (for example, northeastern woodland, tundra, desert).
- Place artifacts on the site. Students may wish to have different squares reflect different activities within the site. Add details, such as a river running through the site, stone foundations, walls, trash pit, hearth, or chimney.
- It is now time for the teams to trade sites and begin their investigation. Assign or allow them to choose roles of an archaeological research team--principal investigator, field crew, recorder, photographer, videographer, artist, cataloger, etc.
- Allow the investigating team time to observe, document, map (using site map or graph paper) the site and artifacts, and collect artifacts. Field notes need to be taken recording location and distribution of objects. Artifacts should not be removed from their location until the recovery location (provenience) information is written on an artifact bag
- The artifacts can now be catalogued using the catalogue form on the following page.
- The investigating team should then organize their data, discuss their findings, analyze the site, and then reveal their findings and conclusions as a class presentation and/or in a site report.
- Teams can then review each others' analysis and interpretation of the site.

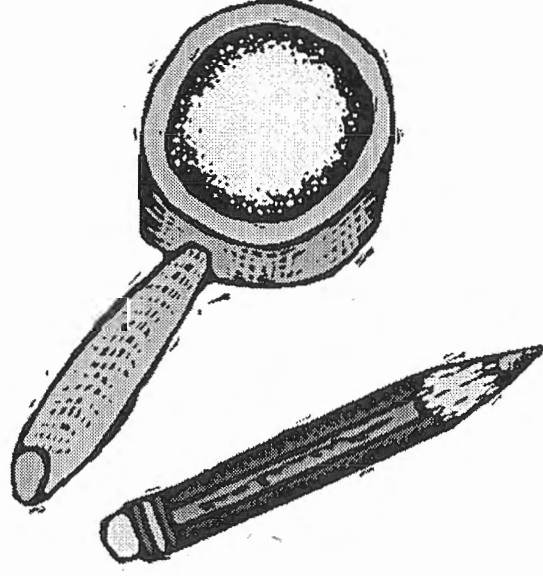
Archaeologist's Grid



MOUNT INDEPENDENCE ARTIFACT CATALOGUE

DIRECTIONS: Choose one object to study and inventory

1. Is it animal vegetable or mineral?
2. What is it made of? (material type)
3. How many pieces? (number of fragments)
4. What was the original shape? (form)
5. What was it used for? (function)
6. Where was it used? (context)
7. Who might have used it?
8. Describe any colors, decorations, or writing?



9. Measure your object. Length? Width? Height? Diameter?
10. Describe its condition (whole, broken, stained,???)

Make up a story about the artifact. Who was using it? Who found it? What happened? Where was this? When was this? How did it happen?



2

From a Mile- High Glacier to a Rugged Plateau

**The Natural Resources
and Geography of
Mount Independence**

From a Mile High Glacier to a Rugged Plateau:

The Natural Resources and Geography of Mount Independence

Hiking the quiet trails at Mount Independence today, it is hard to imagine that more than 200 years ago there was a frontier military outpost manned by as many as 12,000 soldiers and an unknown number of civilians. It is even harder to imagine the site during the Ice Age (about 18,000 years ago) beneath a mile-high glacier, or about 13,000 years ago when it sat beneath a great glacial lake and then under the salt water Champlain Sea. It is also impossible when standing on Mount Independence to avoid being drawn into the natural beauty of the site.

This unit focuses on the Mount's natural environment and the interrelationships of parts of the environment, including soils, rocks, water, plants, and animals. The goal of this thematic unit is to stimulate sensitivity, awareness, and knowledge of the environment of Mount Independence and Vermont.



Mount Independence is characterized by habitat diversity. Because of the lack of development and the existing management plan to control unnecessary impacts, the site is pristine and an invaluable outdoor laboratory. Six miles of hiking trails traverse the rocky plateau, extend to impressive overlooks of Lake Champlain and Fort Ticonderoga, and wind past the ruins of the once-bustling Revolutionary military complex. Embark on a journey back in time. Walk the paths Native Americans, early European settlers, Revolutionary War soldiers, Vermont farmers and industrialists may have walked and view the wealth of natural resources on Mount Independence which have attracted

wildlife and human inhabitants for centuries. Given the minimal development and habitat disturbances that have affected the area, further research is sure to uncover additional species, geological features of the area, and significant archaeological evidence of past human activities.

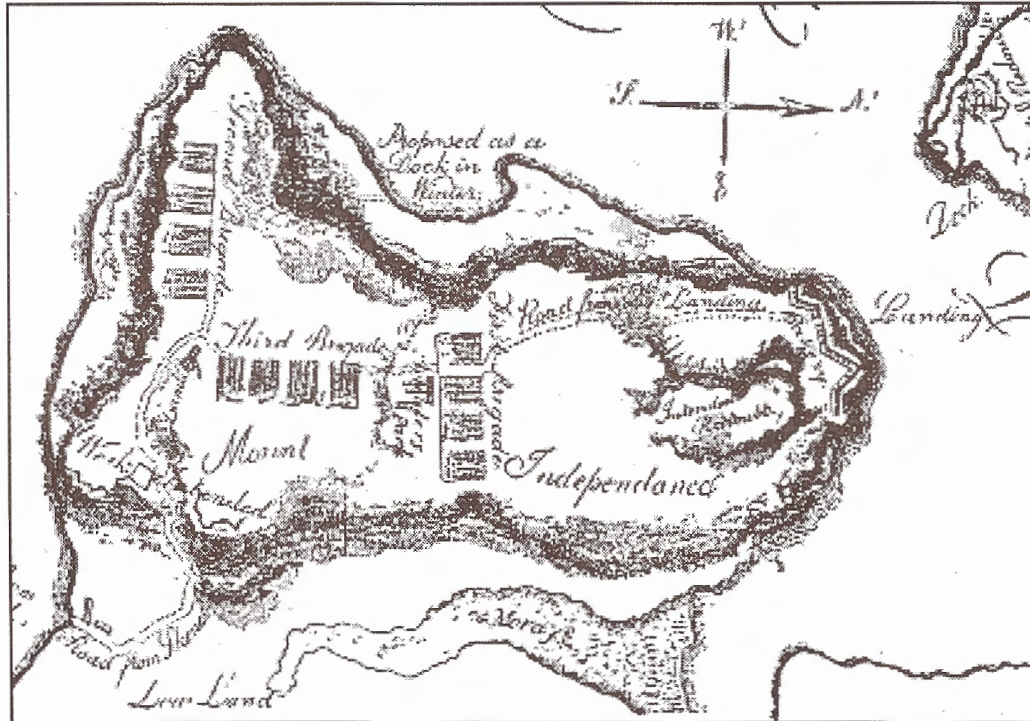
What Does Mount Independence Look Like?

Mount Independence is a rugged high plateau covering more than 300 acres. Extending out from the Vermont shoreline into Lake Champlain, this high bluff dominates the landscape of the eastern shore. On the opposite shore is Fort Ticonderoga in New York. Here, Lake Champlain is squeezed into a narrow passage, or bottleneck, less than one-half mile wide.

The physical setting of the large plateau rises a steep 200 feet above Lake Champlain and affords a good measure of protection. Atop the Mount, often referred to as the tablelands, is a sprawling expanse of forest and field.

Three sides of the limestone promontory are rock walls, in some places occurring as sheer cliffs rising straight up out of the water. The swamp and East Creek on the east side of Mount Independence form another natural boundary, while the rolling,

lower lands south of the Mount essentially form the neck of the peninsula jutting into Lake Champlain. Clearly, Mount Independence is geographically restricted and hard to get to. It is also diverse with lake, river, marsh, and forest environments.



Map of "Ticonderoga and Its Dependencies, August 1776." From: John Trumbull, *The Autobiography, Reminiscences and Letters of Colonel John Trumbull*. New York, Wiley & Putnam, 1841.

Origins under a Glacier

Nearly 3 million years ago when the earth was much colder, the Ice Age began. As the depth and weight of the snow increased, the lower layers turned into ice and glaciers, slow moving masses of ice, formed. A glacier, called the Labrador Ice Sheet, flowed and spread through North America as far south as Pennsylvania and Missouri. If we could time travel back to the Ice Age, we would find ourselves under a mile high glacier.

This glacier advanced and retreated four times during the Ice Age, dramatically changing the landscape, smoothing jagged peaks, and changing water routes and ground levels.

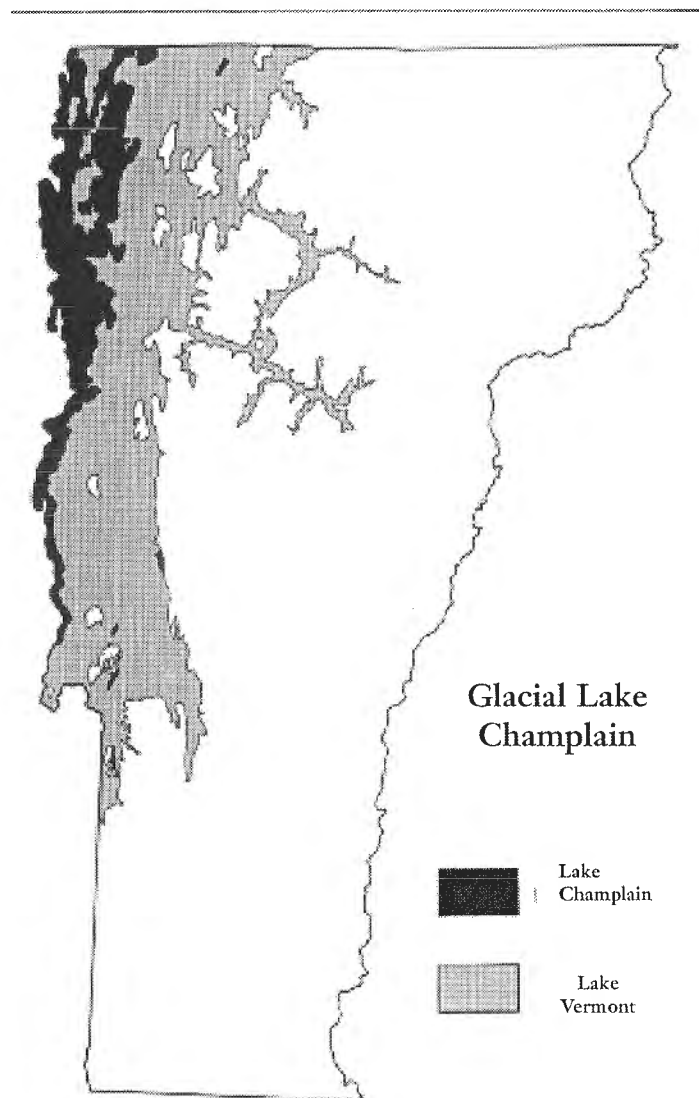
In our time travels, continuing forward toward the pre-

sent, imagine the glaciers melting and yourself at the bottom of a glacial lake that later became an ancient sea. Geologists believe, during the northward retreat of the last glaciers between 13,500 and 12,500 B.P. (before present), western Addison County and all of the Champlain Basin were submerged in an extensive freshwater glacial lake called Lake Vermont. Lake Champlain covers only a portion of the area covered by glacial Lake Vermont. Along the shore were sand dunes and beaches and nests of birds, like the puffin. In the sea, whales and seals swam.

By about 12,500 B.P., rising ocean waters from the Gulf of the St. Lawrence entered Lake Vermont, gradually producing the salt water Champlain Sea. This arm of the Atlantic Ocean covered 20,500 square miles in comparison to Lake Champlain's current expanse which is 490 square miles.

Gradually the land, which had been compressed by

ice and under the sea, rebounded. The present Lake Champlain was formed when the northern end of the Champlain Valley rose from the glacial pressure it had been under and cut off the valley from the sea.

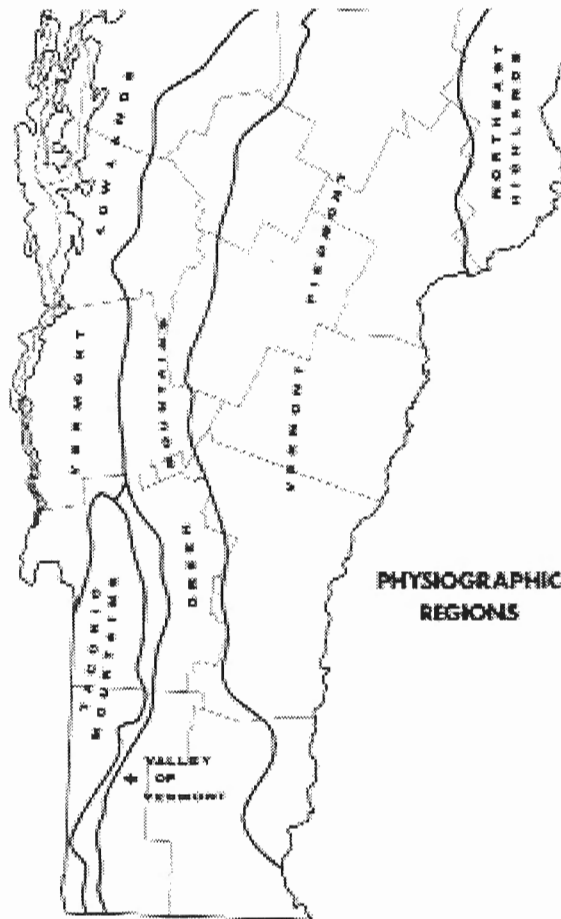


The Physiographic Region of Mount Independence

Geographers have identified six physiographic regions in Vermont: 1) the Champlain (or Vermont) Lowlands, 2) the Green Mountains, 3) the Taconic Mountains, 4) the Valley of Vermont, 5) the Vermont Piedmont, and 6) the Northeast Highlands. Each region has its own characteristic land forms, rock formations, water sources, and climate. Which region is your town located in? What are its characteristics?

Mount Independence lies within the Vermont Lowlands physiographic region which extends along the west side of the state from the Canadian border to the Poultney River in Brandon. This physiographic region includes gently rolling, broad low hills, lake shore terraces, and fossil delta plains. The Champlain Lowlands contain the largest amount of flat land in Vermont. In addition, most of

the region lies at a low elevation, below 1,500 feet above sea level. For example, Mount Independence's highest point reaches an elevation of 300 feet, while Mount Mansfield, the highest



elevation in Vermont, extends to 4,393 feet.

The Rocks of Mount Independence

Western Addison County geology and soils remind us of the past: the glaciers, freshwater Lake Vermont, and the ancient Champlain Sea. Although metamorphic rocks like marble, slate, and quartzite can be found in the region

(west of the Green Mountains in the Vermont Lowlands), the underlying bedrock is generally sedimentary. Sedimentary rocks, like sandstone and shale and limestone, formed over time when pressure, possibly due to the weight of ice or water, compacted sand, silt, and pebbles that settled at the bottom of glaci-

ers or lakes.

In Orwell, the geological formation extending north/south across the western portion of the town includes three narrow parallel ledges of red sandstone, Trenton limestone and dolomite, and Utica slate. Mount Independence is part of a group of low hills, an "overthrust," between Cornwall and Orwell formed by outcrops of the bedrock. This overthrust predates the mountain building of the Green Mountains, which are older than the Adirondacks and even the Alps of Switzerland! The westernmost rock fracture associated with this area is the famous Champlain Thrust Fault, that extends nearly the full length of Lake Champlain and the Champlain basin. Did you know this fault line, like the famous San Andreas fault line in California, is an area susceptible to earthquake activity?

Mount Independence Chert

Mount Independence chert, a durable black flint-like stone which is very sharp when chipped, is one of the main local resources that long ago attracted human populations to the region. This dense chert stone is found in nodules, or irregular lumps, within the limestone or dolomite that underlies the Mount.

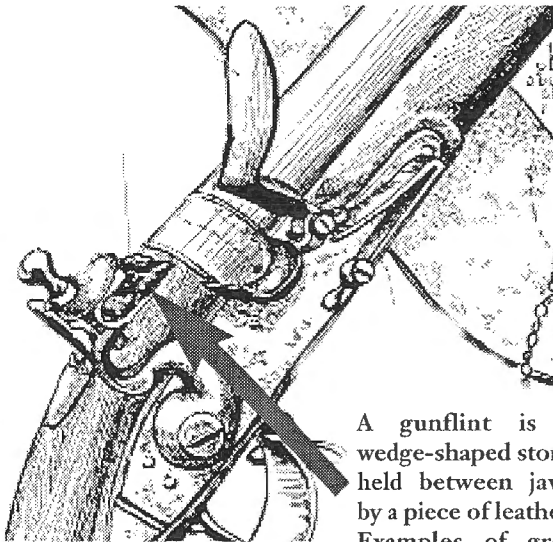
The Mount Independence chert outcroppings, concentrated on the northeast face of the Mount near the mouth of East Creek, possess a wide range of texture, luster, flaking characteristics, and grain variation (from coarse to fine). The outcrop was a reliable and abundant source of high quality chert, an

important natural raw material for stone toolmaking in prehistoric times and gunflint making in historic times.

For thousands of years, generations of Native Americans came to the Mount to quarry the outcrops for toolmaking or trading with other tribes. Along with quartzite, Mount Independence chert was one of the most important prehistoric sources of good quality tool material in all western Vermont. Within the region, Mount Independence chert is common, and sometimes the only raw material of stone tools recovered from prehistoric archaeological sites. Mount Independence chert has been found in prehistoric sites as far away as the Connecticut River Valley.

Mount Independence was also a primary location during the Revolutionary War for obtaining stone for gunflints. Journals written by Revolutionary War soldiers on the Mount tell us the flint was valued:

*A vain of prodigious fine black
Flintstone being discovered on Mt. Independence,*



A gunflint is a wedge-shaped stone held between jaws by a piece of leather. Examples of grey and blonde gunflints found on Mount Independence can be seen in the Museum Kit.

the Genl. desires the commanding officers of regts. would make inquiry if there be any old Countrymen in their Corps who understand the hammering of flints. Upon such persons being found, he or they are to be sent to head Qrs. (November 10, 1776, 2nd New Jersey Orderly Book).

General Knox considered the chert to be such good quality that he shipped seven oxcart loads to American soldiers attacking Boston.

The Soils of Mount Independence

Soil scientists study soils to determine how the soil can be most efficiently used. Many individuals, including farmers, developers, and archaeologists, gain information and benefit from the information in soil surveys.

As soil scientists travel across the country, they observe composition, color, and patterning of the soils; steepness, length and shape of the slopes; size and speed of the streams; native plants or crops; rocks; and many other facts. Each soil series, usually named for a town or other geographical feature near the place where the soil was first mapped, is divided into phases. The name of the soil phase often indicates a feature that affects its recommended uses.

A branch of the United States Department of Agriculture (USDA), the Natural Resources Conservation Service (NRCS, previously known as the Soil Conservation Service) has mapped all soils in Addison County. Boundaries of

individual soils are drawn on aerial photographs. Other features, such as wetlands, buildings, fields, are also depicted on the map. The soil survey report for Addison County includes information about how the soils were formed, their composition, and descriptions of the soil.

Western Addison County is dominated by lake and sea heavy clays and silts. The soil survey map for the Mount Independence region reveals several soil series and phases, including Farmington extremely rocky silt loam. The Farmington series, formed in glacial material, are underlain by limestone bedrock at a depth of 10 to 20 inches and do not retain much moisture.

The outcrops of bedrock, the shallowness of the soil to bedrock in most places, the many loose stones on the surface in some places, and the rough broken topography make it very difficult or impossible to use modern farm machinery on this soil. The same adverse features also severely limit nonfarm uses (USDA 1971:22).

These soil characteristics that make it difficult for farming have contributed to the preservation of the historic cultural resources scattered across the site. However, the shallowness of the soil on the high lands of Mount Independence have exposed the archaeological resources on the ground surface to grazing cattle and sheep, soil erosion, and such human activities as lumbering and artifact collecting.

Water Routes and Resources of Mount Independence: Lake Champlain and East Creek

Lake Champlain, one of Vermont's most treasured natural resources, forms the state's western boundary and encompasses much of the perimeter of Mount Independence. Lake Champlain extends about 118 miles in length, 400 feet in depth, and 12 miles across at its widest point.

The lake level, although relatively stable for the last 4,000 years, changes seasonally. The commonplace changes of 15 feet have affected resources at the water's edge. On the average, however, Lake Champlain is situated about 95 feet above sea level and contains the lowest point of elevation in Vermont. The lake outlet in Canada is the Richelieu River which flows north to the St. Lawrence River. Consequently, the watershed (or drainage basin) for this region is referred to as the Lake Champlain-St. Lawrence. Although there are three other watersheds in Vermont (the Connecticut, the Memphremagog-St. Lawrence, and the Hudson), most of Vermont's largest rivers are part of the Lake Champlain-St. Lawrence River drainage basins.

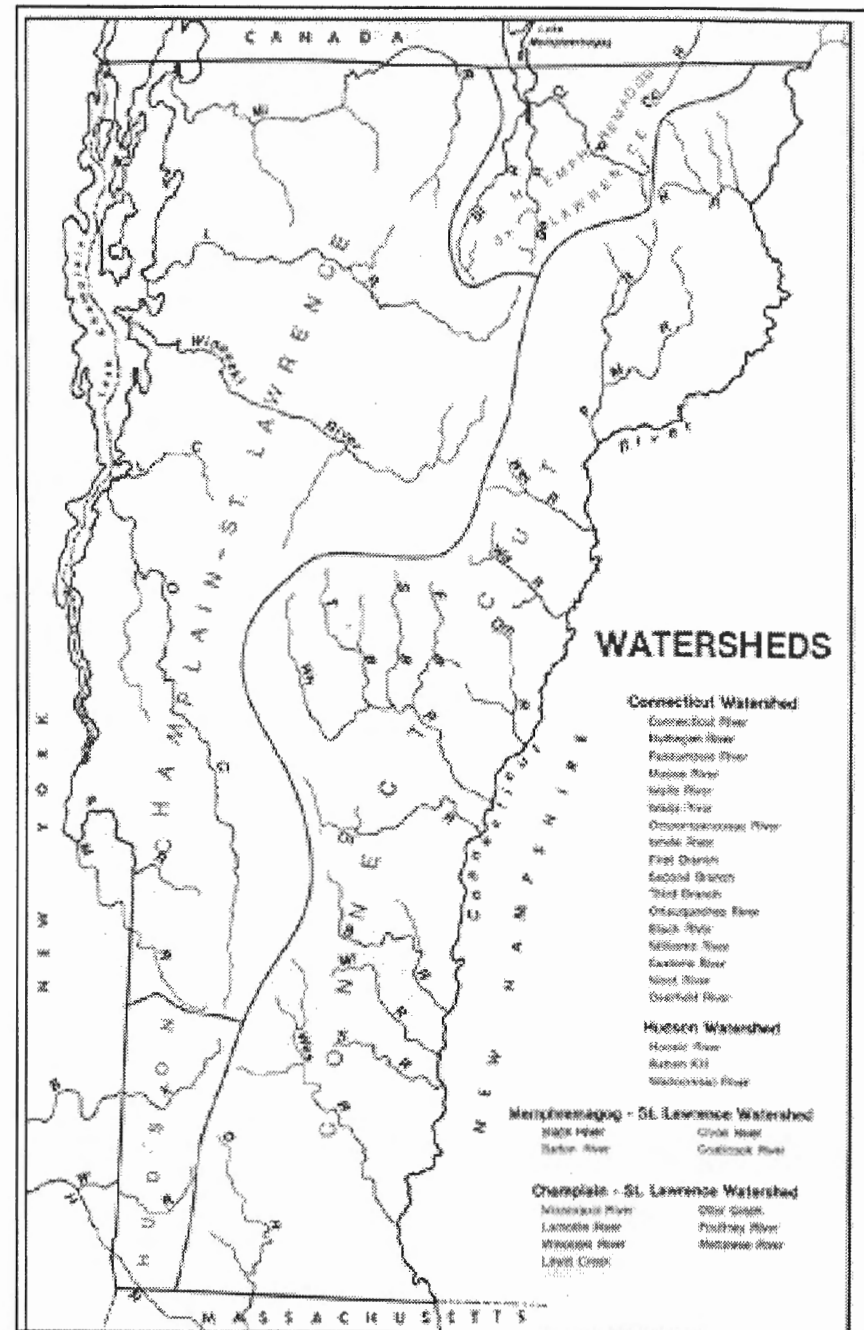
The historic significance of Lake Champlain is immeasurable; for thousands of years, the lake has provided food for survival needs and served as a vital commercial transportation highway. Its importance was understood by Native Americans, French, British, and American colonists who used the lake as a navigable superhighway. In fact, H. N. Muller (Hill 1976:vi) referred to Lake Champlain as "the meeting place of the empires, for the Algonquins and Iroquois and for later genera-

tions of French and English." These empires battled over control of the lake, each trying to control transportation and commerce of the water route leading into the heart of North America.

Like Lake Champlain, Vermont's rivers had an important historic role as essential transportation corridors and sources of food as well as power for early mills. East Creek (also known as "Little Murray River" during the early 19th century) is one of the many tributaries, rivers, and streams which flow into Lake Champlain from Vermont, New York, and Canada. Flowing in a northwest direction toward Lake Champlain and extending along the east side of Mount Independence, East Creek is a slow moving stream which meanders through a large swamp and drains approximately 34 square miles, a relatively small area compared to other rivers in Vermont.

East Creek is also part of a delta and a classic drowned valley with wetlands and swamp on both sides of the creek. Although this econiche is an important breeding and feeding habitat for many animal and vegetable species, Hill (1976:111) vividly summarizes the natural defenses of the region that he describes as a "mine field of heavy timber and brush, bordering the steaming and swampy muck of East Creek."

In addition to Lake Champlain and East Creek, there is a freshwater spring on the western shore of Mount Independence that served as an important water resource during the military occupation of the site.



Climate

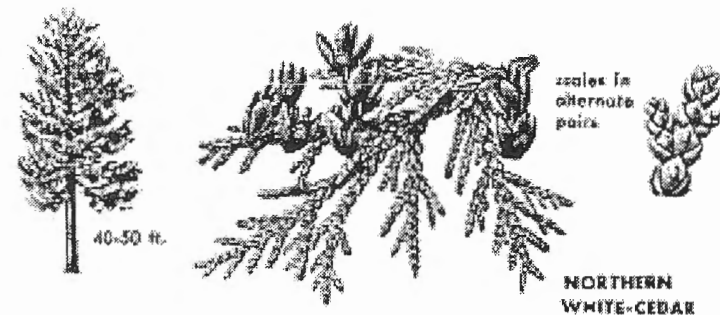
Nestled between the Adirondack Mountains to the west and the Green Mountains to the east and moderated from extreme temperature changes by Lake Champlain, the Vermont Lowlands climate is generally milder than other areas in the state. For example, the region is cooler in the summer and warmer in the winter. However, vivid diary entries describe the frigid weather conditions of Mount Independence, particularly during the winter of 1776. Although winter temperatures and snowfall accumulations vary through the years and in different locations, the lower elevations near Lake Champlain average 22 degrees Fahrenheit and receive about 60 inches of snow each year. The soldier of the Revolution endured a colder than average winter on the Mount, without the comforts of a warm hearth, adequate food, clothing, and medical supplies.

Flora of Mount Independence

Just as locating the military outpost on Mount Independence in 1775 was a selective process, a diverse group of plant and animal species have chosen Mount Independence for their habitat. Many of the more than 1,900 leafy plant species of Vermont, including some of Vermont's rarest plant populations, are found within the diverse habitats of Mount Independence. Since 1992, several scientists and naturalists have conducted an ongoing inventory of the various species of flora and fauna that inhabit or visit the Mount. Mount Independence has served as an outdoor laboratory for wildlife studies. One dedicated bird-

er has logged over 300 hours of observation in the field spanning all seasons, weather conditions, and times of day.

The Adirondack Chapter of the Nature Conservancy lists 167 herbaceous species, 21 shrub species, 15 tree species, and 5 vine species as inhabiting Mount Independence. Some of these varieties, like the great cedars, rise above the mounds of ruins associated with military structures. Deciduous tree species (which shed their leaves every year) appear to dominate the Mount. An uncharacteristic abundance of oak and hickory, as well as elm, beech, sycamore, and sumac encroach upon the water's edge. Early 18th-century maps of Mount Independence, in fact, refer to sections near East Creek as impenetrable woods (Olsen n.d.). In general, the forests on the summit of Mount Independence are second growth woods. In contrast, predominantly undisturbed woods occur along the steeper east slopes and west face of Mount Independence and



From: Trees of North America. Illustration by Rebecca Merrill

along the shore of Catfish Bay. Here shrubs and mixed hardwoods, both thin and heavier growth stands, characterize the

marshland perimeters and ravines. Numerous rare species thrive here and where the marsh meets the forest.

In addition, the list of flora on Mount Independence and along East Creek, the largest narrow-leaved cattail marsh along Lake Champlain, includes many rare, threatened, and endangered species including lakecress. The wide variety of flora reveals the strength of natural forces which often have disguised evidence of man's alteration of the environment in 1776-1777.



Fauna of Mount Independence

Vermont's animal heritage includes 350 vertebrate species, and Mount Independence's diverse habitats attract many different species of fauna. Each species is unique but part of the whole ecosystem. The loss of one species can disrupt the food chain. More than 125 animal species occupy the Mount, including over 100 bird species, 4 species of snakes, and 16 animal species.

Information on birds indicates that Mount Independence contains a permanent resident population, seasonal fluctuations in that population, nesting species, migratory visitations, and occasional and accidental visitations. Vermont is along an important bird migration path called the Atlantic Flyway, so migratory and nesting waterfowl here include ducks, geese, and other marsh and shore birds. One winter population, the long-eared owls, is of particular statewide importance. These large birds are hard to identify as they are well camouflaged and their vocalizations are limited to the mating season. The Mount Independence site is the only known nesting site for long-eared owls in Vermont. Also sighted along East Creek is the red-headed woodpecker, which is listed on the Vermont Natural Heritage list. Bird sightings here also include osprey. In 1993, a well-concealed raven's nest was confirmed on the cliffs overlooking Catfish Bay. Although it seemed inaccessible, the nest fell victim to some form of predator just as the chicks were about to fly. It is not known if any survived.

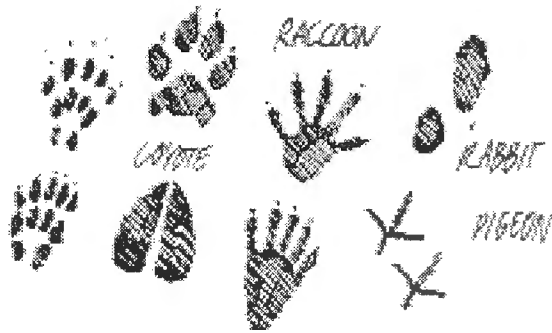
As Mount Independence was formerly known as Rattlesnake Hill, the four snake species on the Mount hold a significant place. However, sightings are rare.

While some animal species, such as squirrel and rabbits, are permanent residents of the Mount, other species, such as the white-tailed deer, inhabit the Mount seasonally and use it



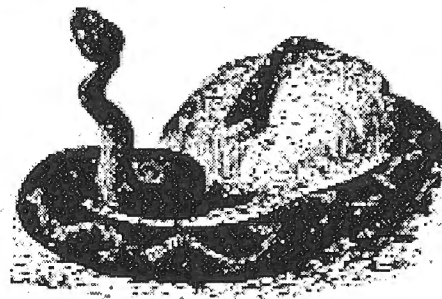
mainly as a fawning ground. Muskrat, beaver, and otter inhabit the wetland areas including the shores near Catfish Bay. East Creek is also believed to be the habitat for several species of turtle including the spotted turtle.

The diverse and abundant fish population of East Creek



includes several species listed on the Natural Heritage list including the blackchin shiner, brassy minnow and the river carp sucker. Fresh water mussel have also been identified in the region.

With the diverse fauna and flora available, it is easy to see why humans have long been attracted to the natural environment of the Mount, its physical surroundings, valuable strategic location, and abundant resources.




Resources


Adirondack Nature Conservancy, Adirondack Land Trust, Fort Ticonderoga: Natural Resources Inventory and Plan for Action, 1990

Allen, Richard, Mary Woodruff, Allen Myers, Steven Farrow, and Laura Feaster, The Vermont Geography Book. Northern Cartographic, Burlington, Vermont, 1986

Hill, Ralph Nading, Lake Champlain: Key to Liberty. Countryman Press, Woodstock, Vermont, 1976

Meeks, Harold A., Vermont's Land and Resources. The New England Press, Shelburne, Vermont, 1986

United States Department of Agriculture, Soil Conservation Service, 1971 Soil Survey of Addison County, Vermont. U.S. Government Printing Office, Washington, D.C. (In Museum Kit) 

United States Geological Survey 1950, Ticonderoga, New York. 15' Topographical Quadrangle. (In Museum Kit) 

Scout It Out

Looking at the Environment

Objective:

- To identify and record different elements of the environment in the student's community and/or of Mount Independence.

Target Ages:

Grades 3-8

Class Orientation:

Individual, pairs, small groups, whole class

Time Needed:

1-2 class periods

Materials:

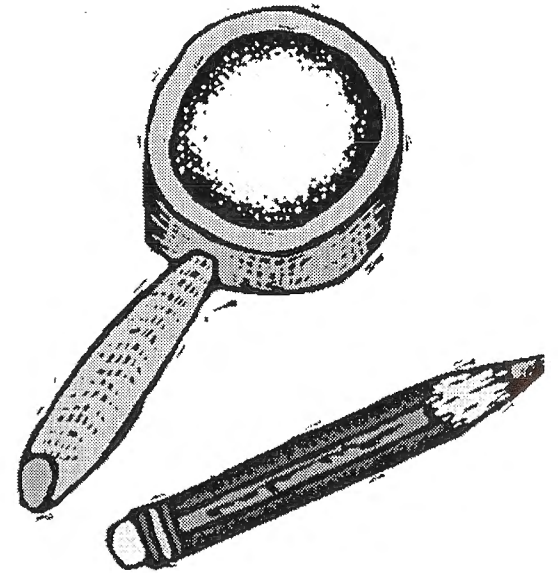
- Paper for recording notes and drawing
- Colored pencils
- Ruler

Optional Materials:

- Compass
- Tape measure

Introduction:

In the past before maps were available, scouts and/or surveyors were sent out to evaluate the environment and the possibilities of establishing a settlement. Their job was to make a record of the layout of the land, locate food and water resources, describe the defensive qualities of the site, and assess the characteristics of the region. Imagine you are a scout! Use your senses to perform the following activities. Observe, measure, record, and analyze the elements of the environment. If your location does not have settlement potential, what is it useful for? For example, do the available resources make it a good marble quarry site, gravel pit, ski resort, nature reserve?



Activities:

- Pretend you are a scout and sent out to assess the elements of the environment on Mount Independence, your school campus, in your neighborhood, or in your community.

While on the Mount:

- Take a walk. Consider the natural environment and the available resources. What is the climate like? Where are the water sources? What foods (flora and fauna) are available? Record the location and shape of any animal tracks on a trail map. What could you use to build a shelter? Are the soils good agricultural soils? Point out parts of the site which are not as useful for settlement purposes. For example, some locations may be too steep, too wet, too eroded to support vegetation.
- Draw pictures, create a mural on model, or describe these elements of the environment.

- Collect 3 different types of leaves from the ground surface.
- Match the leaves to the trees they come from. Identify the plant species they represent.
- Describe what the leaves from the different species have in common and how they differ.
- Sketch the leaves and the trees/plants they derived from.
- Make a leaf skeleton.
- Compare your sightings with others.



Objectives:

- To learn map-reading skills and practice map orienteering.
- To learn how maps depict natural and cultural features.
- To stimulate sensitivity and awareness of components of the environment especially at Mount Independence.

Target Ages:

Grades 3-8


Class Orientation:

Individual, pairs, small groups, whole class

Time Needed:

1-2 class periods

Materials:

- Ruler
- Protractor (optional)
- Pencil
- United States Geological Survey Map (Included in Museum Kit) 


Maps & Keys

Learning to Read Maps

Introduction:

Scientists use various types of maps, including the United States Geological Survey Topographic Quadrangle Maps, to learn information on the general layout of an area (topography) including the location of towns, structures, natural features and boundaries, and elevation with respect to sea level. Elevation or relief is shown on the United States Geological Survey Topographic Quadrangle Maps by the use of contour lines. A contour line is a line connecting all points of equal elevation on the map. The scale of the map is the ratio of the horizontal distance between 2 (two) points on the map and the same 2 (two) points on the ground. Cartographers have made it easy to read these maps by orienting them so that the top of the map is true north. The name of the map is the name of a prominent city or feature in the area.

Activities:

You are a surveyor about to go in the field. Using the United States Geological Survey Topographical Quadrangle Map *Ticonderoga*, can you answer the following questions about Mount Independence and the surrounding area? **(Included in Museum Kit)** 

- A. Name 3 (three) natural boundaries of the environment of Mount Independence.
- B. Name a human-made feature on Mount Independence
- C. What is the elevation of the highest point on Mount Independence?
- D. In which direction is historic Fort Ticonderoga from Mount Independence?

- E. What is the elevation of the highest point of Fort Ticonderoga?
- F. In which direction is Mount Defiance from Mount Independence?
- G. What is the highest elevation you can reach by taking the toll road up Mount Defiance?
- H. What is the name of the bay on the west side of Mount Independence?
- I. Is the approximate elevation of the East Creek marsh less than or more than 200 feet?
- J. If there was a fire on top of Mount Independence, in which direction would you travel by foot to quickly put out the fire? Be sure to look at the contour lines on the maps. Explain how Lake Champlain, swampy East Creek, and elevation might affect transportation patterns, settlement patterns, and resource extraction activities.
- K. Find the 'springs' of Mount Independence. What does this indicate?

- Make a map illustrating different elements of the environment of Mount Independence. Choose a style like a flat map, a contour map or a map on an object like John Calfe's powderhorn.

Answers:

- A. Lake Champlain, East
- Creek, Catfish Bay
- B. Roads
- C. 306 feet above sea level
- D. Northwest
- E. 193 feet
- F. Southwest
- G. 858 feet
- H. Catfish Bay
- I. Less than
- J. North or northwest
- K. Spring water

Objectives:

- Learn orienteering and how the people in the 1700s used compasses to determine where they were going.
- Make a compass.

Target Ages:

Grades 3-8

Class Orientation:

Individual, pairs, small groups, whole class

Time Needed:

1-2 class periods

Materials:

See next page

North, South, East & West

Orienteering & Using the Compass

Introduction:

Maps in 1777 were not nearly as accurate as they are today. British, German, Canadian and American troops utilized maps to make strategic decisions. Sutlers, artificers or trappers travelled extensively in their jobs and relied on maps. Others were on the move to unclaimed land. Without maps or road signs, how did they find their way around?

In much the same way hikers today count on Mother Nature to help them, people in 1777 relied on familiar stars to guide their progress. Remember that the sky remains virtually unchanged since the Revolutionary War. During the day the rising or setting sun served as a signpost in the sky.

But what happened when Vermont's sky was covered by thick clouds? How about on rainy days? Or snowy ones? Vermont's weather certainly makes orienteering by the heavens a difficult task. Colonial people had no worries; they used compasses.

Compasses have been around for about 2,000 years. It is believed they were invented in China, although they appear in Egypt around 60 A.D. Early compasses were made of a thin piece of naturally occurring magnetic lodestone which was suspended from a fine string so the stone could swing freely. It always points to magnetic north. Knowing that the needle will point to magnetic north lets you figure out which direction you are going. The following exercise offers hands-on practice in orienteering with a water compass.



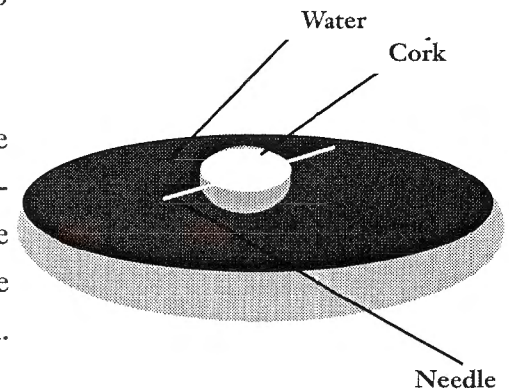
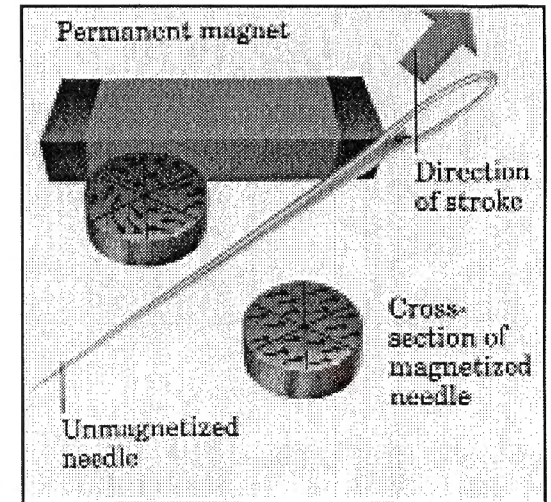
Samuel Lane's Compass.
From A Journal for the
Years 1739-1803 Samuel
Lane of Stratham, New
Hampshire, New
Hampshire Historical
Society.

Materials Needed:

- Soup bowl or shallow dish, not made of steel
- A wine cork cut in half or small disk of cork, or a plastic milk bottle cap
- A small bit of modeling clay
- Steel sewing needle
- A permanent magnet (preferably a bar magnet)

Make Your Own Compass

- Holding a bar magnet in one hand, stroke the steel needle point away from you. It is important that you stroke the needle in the same direction every time and that you lift the needle off the magnet at the end of each stroke. Do not rub the needle back and forth! Stroke the needle about 75 times.
- After you have stroked 75 times, push the needle through the cork (if you are using a plastic bottle cap, place a thin ring of clay around the lip of the cap and press the needle onto the clay so that it lies flat. Don't use too much clay and make the cap heavy; you want it to float.)
- Pour an inch or two of water into the dish and place the magnetized needle in it. Be sure that the magnet you used to magnetize your needle is nowhere nearby! Let the water become still. Watch as the needle turns itself until it points at magnetic north.



Objective:

- To learn soil survey map reading skills.
- To learn how soil maps depict elements of the environment and cultural features.

Target Ages:

Grades 5-8


Class Orientation:

Whole Class

Time Needed:


20 minutes

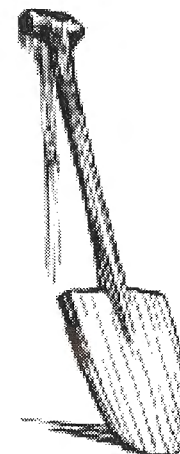
Materials:

- United States Department of Agriculture Soil Survey Maps (In Museum Kit) 
- Pencil
- Paper
- Clear ziplock sandwich baggies
- Lined paper to use as recording sheet


Dirt Detective

Introduction:

Soil scientists are "dirt detectives" who investigate the qualities of soil. Most counties have had a soil survey recording the soils types. These appear on the United States Department of Agriculture Soil Survey Maps (provided in the **Museum Kit**  and the Artifact Cart at Mount Independence). The soil name is abbreviated on the maps and the second capital letter in the soil abbreviation refers to slope percentage. Although slope percentage varies with the soil series, the slope percentages rise as the letter increases within the alphabet. For example, the slope percentages for Vergennes rocky clay include A , ranging from 0 to 2 percent slope; B, 2 to 6 percent; C, 6 to 12 percent; and D, 12 to 25 percent.



Activity:

You are considering farming or developing Mount Independence. Use the Soil Survey map of the Mount Independence area, the soil key, and the soil series descriptions in the **Museum Kit**  to perform the following activities.

- Identify the names of 3 soils by using the map and soil legend chart.
- What are the dominant slope percentages?

Notes:

- Use the soil series descriptions to summarize information about these soils. Did these soils form as water deposited material in the Champlain Valley or as glacial till in the Champlain Valley? Drainage abilities? Potential uses? What factors have attracted settlement or deterred farming and development? Have any of these features aided the preservation of the site?
- You are a dirt detective! What kinds of soils are found in your community? Collect, analyze, and compare the soils in your community as follows:
 - Each student should collect a small soil sample (the size of a ziplock sandwich bag) from a location near their house.
 - Make a record of your sampling method and date of recovery. Describe your sample and recovery location. The record should include a description of the environment (e.g., the north bank of East Creek, the west shoulder of Main Street, 2 meters east of my driveway at Two Maple Street) and the composition of the soil sample (color, texture, inclusions, etc.). Is the soil matrix dominated by sand, clay, or silt?
 - Bring your sample and recording sheet to school and compare with other students. Compare color, approximate percentages of sand or clay or silt, gravel, etc.
 - Try several experiments to see how these soils differ. For example, pour small amounts of water on to the soil. Do the rates at which water soaks into soils differ? Can you add a small amount of water to the soil and form it into a ball? Can you squish it to form a 'ribbon' of soil? Measure the length of the ribbon before it breaks apart.

3

This Land Is Our Land . . .

Native Inhabitants of
Mount Independence
and the History of
Early Settlers



This Land Is Our Land . . .

Native Inhabitants and Early Settlers of Mount Independence

In the previous chapter, the focus was on the natural resources of Mount Independence that attracted plant and animal populations. This chapter takes a brief look at the first human populations on Mount Independence and in the surrounding area.

Although our interest in Mount Independence is often concentrated on activities which took place within the short two-year interval of 1776-1777, people inhabited the region as early as 3,000 years ago and conceivably may have occupied the region as early as 12,000 years ago. The region has been home to several different cultures: Native American, French, and British.

These peoples remind us that the Mount Independence region, and Vermont, comprises many rich cultures and heritages.

The environment that surrounded these people supplied the essentials for survival and functioned as a supermarket, drug store, hardware and department store. Survival depended on their ability to adapt to the environment and establish patterns of behavior that enabled them to find food, water, and the materials needed to make shelters, tools, and supplies.

Chapter cover graphic: Watercolor of an Abenaki woman and man from the 1700s. Bibliotheque Municipale de la Ville de Montreal, Collection Gagnon.

12,000 Years of Native American Activities on the Mount

For thousands of years prior to 1776, Vermont was home to Native Americans. They occupied the region long before the Egyptian pyramids were built and before the height of the Greek and Roman civilizations! They were the first humans "to enjoy the bounty and beauty" of Vermont (Carlson 1975:A40). However, very little of Addison County's Native American

activities, extending back 12,000 years, is actually known. There are major gaps in our understanding of Vermont prehistory, and there is much to learn about how the original Vermonters lived and changed over time. Moreover, there are no written historic records for much of this period, which is why it is called "prehistoric," or "pre-contact," before the arrival of Europeans. To

complicate the situation, there are many myths about Native American lifestyles in Vermont. One myth is that Native

Americans used Vermont as a hunting ground but lived elsewhere, such as in New York. However, archaeological investigations in Vermont have proved the existence of impressive Native American villages and long-term activities. In addition, oral history provides information on the lifestyles of past inhabitants of Vermont and indicates the Western Abenaki of Missisquoi, Odanak, and St. Francis are descendants of the predominant Native American population of Vermont. None of

the information indicates warbonneted horsemen and villages of tepees, images often wrongly associated with Vermont Indians.

Another myth is that Native Americans had a "primitive" lifestyle. When primitive is defined as simple, this description certainly does not apply to the Native American inhabitants of Vermont who lived complex lives, made adept use of available resources, and operated extensive trade networks linking them with people as far away as the coast of Labrador, Michigan and Ohio, and the Gulf of Mexico. In addition, these original Vermonters believed in concepts adopted by us

today. For example, the Native Americans honored the earth and believed that they had to help regenerate the natural world



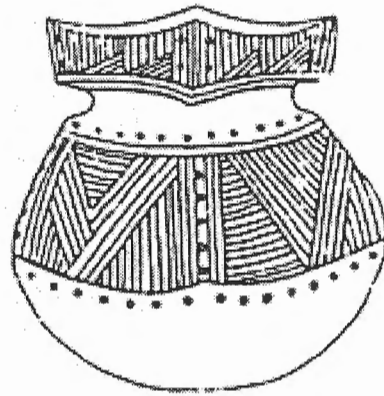
"Indians of Upper Canada" lithograph by Cornelius Krieghoff. National Archives of Canada, C-000056.

to assure their survival. This concept is now shared by modern environmentalists. Many elements of Native American culture, from clothing to technologies, have been integrated into our culture. Native American culture is an important part of Vermont's heritage.

Evidence of Native American Activities on Mount Independence and in Orwell

Evidence of long-term Native American occupations before the arrival of Europeans, has been found on Mount Independence and in Orwell beginning as early as 3,000 years ago.

Native Americans, similar to the later European Americans, were attracted to the natural resources and environmental setting. Prehistoric use of the area focused on three unique attributes of the region: 1) good quality chert, 2) the extensive marshes of East Creek that offered a wide range of floral and faunal species, and 3) the close geographical relationship between two subsistence alternatives: the small secluded East Creek Valley and its resource-rich wetlands and the rich resources of Lake Champlain (Peebles 1982). Clearly, the abundant wildlife; nuts, berries, and other edible plants; medicinal



herbs; good soils for growing crops; and high quality chert suitable for making stone tools provided the essentials for survival and attracted Native American populations for many centuries.

Evidence of Native American presence on and near Mount Independence is diverse and includes quarry sites, hunting or "kill" sites, rock shelters, a village, and burial grounds. The East Creek Village site located across from Mount Independence, "the most important archeological area in Vermont, possibly in New England" (Daniels 1963:31), is listed on the National Register of Historic Places. The diversity and significance of the ancient Native American sites in this region stimulated archaeologists in the 1970s to begin the process to nominate the East Creek Archaeological District, which includes Mount Independence, to the National Register of Historic Places.

Patterns of Native American Activities in Vermont

Systematic archaeological investigation is relatively new, and much more research is needed to understand the patterns of Native American activities in Vermont. In the past, archaeologists have assumed Vermont's Native American cultures and activities were similar to those in other parts of the Northeast. Although there are problems with this assumption, certainly Native Americans did not confine their movements within the modern boundaries of the State of Vermont, and Lake Champlain served as a major transportation corridor for Native Americans rather than a barrier.

Information on the patterns of Native American activities has been divided into four major periods that represent well-defined differences in lifestyles, technologies, settlement patterns, and population size and density. Many of the environmental factors, discussed in the previous chapter, influenced human adaptations within these periods. The changes in environment and culture are reflected in the variety of artifacts that represent the four major periods of Vermont prehistory: the Paleoindian; the Archaic; the Woodland; and the Historic or Contact period (also known as the Transitional period). Native Americans occupied sites near Mount Independence, such as the East Creek site from the late Archaic, beginning approximately 3,000 years ago, through the Late Woodland period.

Paleoindian Period

The first people to migrate to Vermont, between 10,000 and 12,000 years ago and after the ice melted in the Northeast, are called Paleoindians. This word comes from the Greek word "palaaios" meaning ancient.

Paleoindians probably came to Vermont by boat or by land along a newly exposed land bridge linking Siberia with Alaska and northern America. Paleoindians were nomads in an arctic-like tundra, a treeless environment. They followed and hunted Pleistocene mammals, like caribou, mammoth, mastodon, musk ox, and elk. These animals not only provided them with meat, but their hides were used as clothing, cordage, and shelter material. The Paleoindians lived in extended family groups (perhaps 10 to 30 people) and camped along the cold,

dry, shores of the salt water Champlain Sea or in major river valleys.

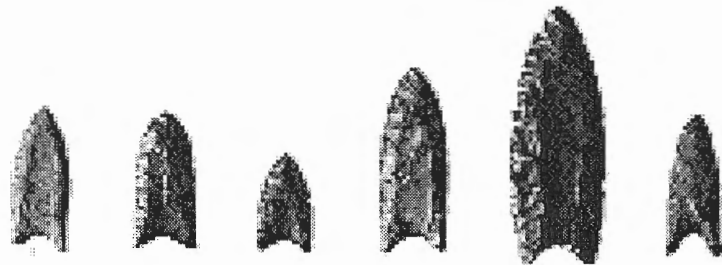
Archaeologists infer from present day nomadic people who hunt and gather that Paleoindian males were the hunters and women, the gatherers. Their hunting tools, made of stone and wood and bone, were spears with a fluted or channeled point. Spears were thrown or jabbed into an animal. Another common Paleoindian tool was the scraper used to scrape skins of animals. Paleoindians also hunted sea mammals and fished, and gathered plants and berries to eat. In fact, based on the tools found in Paleo sites in the Northeast, it seems that a majority of their diet consisted of gathered roots, berries, nuts, seeds, and small game and fish, rather than "big game," that may have been consumed seasonally or ritually.

Few Paleoindian sites have been found in Vermont. This may be the result of several factors. The arctic-like conditions of 12,000 years ago are very different from today's environment. In addition, the sea level was lower, and it is believed sites in the vicinity of Mount Independence may be submerged under the present Lake Champlain. Yet, evidence indicates Paleoindians quarried the black chert of the lithic foundations found on Mount Independence and in the region. Fluted points made of chert have been found on Paleoindian sites in Swanton, Georgia, and most recently, from the shore near Fort Ticonderoga.

Archaic Period

As the climate became warmer between 9,500 to 3,000 years ago, the tundra gradually changed to a woodland environ-

ment with forests of spruce and fir, similar to regions in Maine. Caribou and musk ox moved north along with the colder climate, and the mammoth became extinct. Instead of following these animals to the colder regions, Archaic people of Vermont modified their activities, adapting to the changes in the area's plant and animal populations. However, communities moved seasonally in order to best use different environments and

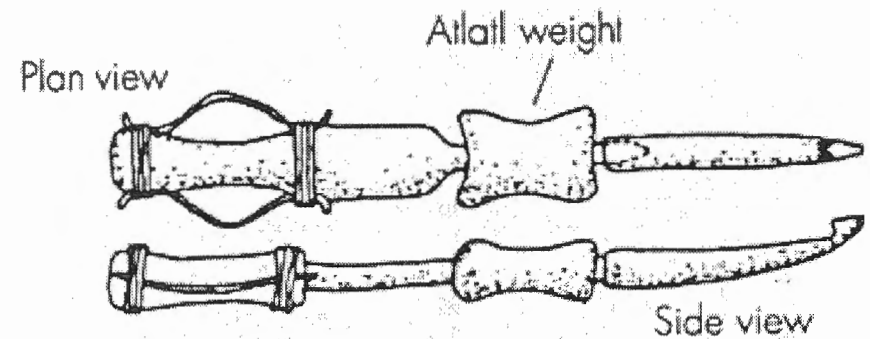


Fluted projectile points

resources in the region. They built semi-permanent camps and lived in village wigwams and long houses. Burial grounds were associated with these villages, including one located north of Mount Independence.

New tool shapes and smaller projectile points suggest different hunting methods than those that used the earlier spears with fluted points. Rather than jabbing prey with a spear, Archaic people used traps and atlatls, specialized spear and dart throwers.

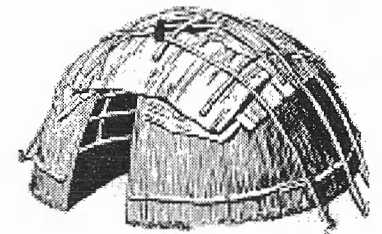
Late in the Archaic time, approximately 3,000 years ago, people learned to carve a soft rock called soapstone or steatite. They formed this rock into bowls, pots, and pipes. Soapstone bowls made it easier to cook foods as these could be placed directly in fires unlike woven, birchbark, or wooden containers.



Atlatl. From: Gordon Allen Lothson, The Jeffers Petroglyphs Site

Woodland Period

The Woodland period began about 3,000 years ago and lasted until the Europeans arrived in 1609. The environment of the Woodland period was similar to what we see in Vermont today with forests of pine and hardwood.

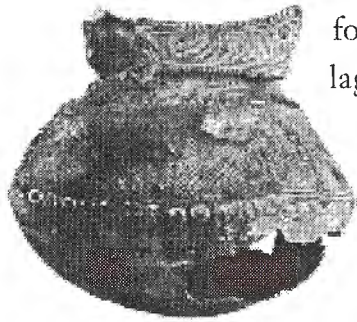


From: Indian Lore. Boy Scouts of America, Irving, TX, 1989.

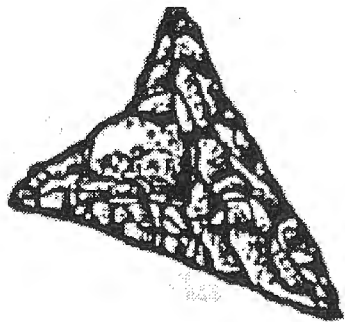
Although many similar practices undertaken in the Archaic period appear in the Woodland period, there were refinements. For example, the shape and smaller size of projectile points provide evidence of the introduction of the bow and arrow. Small triangular points were widely used.

Two other new practices also characterize the Woodland period--pottery making and agriculture. Fragments of pottery are important artifacts of the Woodland period. Seeds were still an integral part of the Woodland Indians' diet, and there is

evidence of agriculture--charred fragments of corn, squash, and beans. Vermont Indians also cultivated some local wild plants.



Native American ceramic pot found in Vermont. "Colchester Jar" (A.D. 1400-1580) made by St. Lawrence Iroquois. Courtesy: Robert Hull Fleming Museum. From The Original Vermonters.



Levanna arrow point (Woodland period)

As farming increased the amount of food available, semi-permanent villages were established along waterways.

Archaeologists Haviland and Power (1994:86) indicate the bulk of evidence relating to early Woodland times in Vermont comes from cemetery sites. Four cemeteries of this era in Vermont have been discovered, all in the Champlain Valley. Two are in Orwell: the East Creek and Bennett sites. The presence of red ocher, a red mineral, in the graves caused early archaeologists to refer to the ancient inhabitants as the "Red Paint People." Ground stone, copper items, and stone tubes with blocked ends suggest connections and trade associations with the Adena culture of the Ohio Valley.

Historic or Contact Period

The Historic or Contact period includes many stories of clashes between the Algonquin and the Iroquois, as well as the Native American and European American cultures. It is this

period, which began nearly 400 years ago, that most history books concentrate on.

Algonquin and Iroquois Clash of Cultures

Woodland period cultures of western Vermont and eastern New York evolved into Algonquin and Iroquoian cultures.

Their tribes occupied northern New England, and Lake Champlain became known as their "meeting ground." With languages as dramatically different as Chinese and English, the



Contact and trade altered Native American cultures. From "Prehistoric Archeology." New York State Museum, Albany, NY.

Algonquins and Iroquois were bitter enemies and possessed strikingly different beliefs and lifestyles. Because of these dramatic differences, there has been an ongoing debate over the Iroquois' origin for nearly 100 years. How did this wildly different language group end up in the middle of a bunch of Algonquian speakers? Some say they originated in this region,

others argue that the Iroquois people had migrated north in a slow, archaeologically demonstrable pattern over a millennium and were related to the Cherokees in the southeastern United States (Lacy 1997).

Generally it is believed that the Algonquins, the largest language group of North American Indians, were the first to occupy Vermont. Certainly they were permanent Vermont residents in the 17th and 18th centuries. Their range extended from Nova Scotia to Cheyenne territory in the Rocky Mountains. Although Algonquian-speaking tribes shared a language family, their cultural traditions varied. Scholars often disagree over which specific Algonquin tribes were in Vermont; however, the major tribes associated with the Mount Independence region appear to be the Abenaki and the Mahicans (Mohicans).

"The Abenaki, 'People of the Dawnland' or 'People of the East,' once had villages along Lake Champlain from Missisquoi Bay to Otter Creek, around Lakes Bomoseen and Memphremagog, and along the Connecticut" (Carlson 1975:A39). The Abenaki were part of a loose alliance or confederacy called the "Wabanaki" that includes Eastern and Western Abenaki, Passamaquoddy, and Maliseet. Mahicans (or Mohicans, known as the "River Folk" or "Wolf People") were originally from the Hudson River area. They were driven from the Mount Independence region by the Iroquois (Mohawks) and English before 1750.

During the Contact period, the Algonquins allied themselves with the French and served as guides for Samuel de

Champlain, taking him down Lake Champlain and pointing out the Iroquois encampments, including some along the eastern shore of Lake Champlain.



Drawing by Sarah Kinsella of Chert projectile point found by archaeologists on Mount Independence.

In general during the Contact period, however, Lake Champlain was recognized as the eastern border of the Iroquois.

The Iroquois, who allied with the British in the Contact period, were enemies of the Algonquins, who called them "real adder snakes" and "man eaters." Member tribes of the Six Nations of the Iroquois, a confederacy of New York and western Ohio tribes, included the Mohawk, Oneida, Onondaga, Seneca, Cayuga, and



The Western Abenaki and their neighbors. Adapted from: Gordon Day, The Identity of St. Francis.

Tuscarora. The Mohawks lived along the western shores of

Lake Champlain as early as 1550. Historical records also indicate the Mohawks sold much of Addison and Rutland counties to Colonel John Henry Lydius in February 1732.

Native American and European American Clash of Cultures

Imagine your surprise and confusion when strangers from Great Britain, France, and Holland arrived in your homeland to establish trading posts, missions, and forts. Imagine traveling in a canoe caravan on Lake Champlain and passing the homes of these foreign trappers and traders on the shore of your family's seasonal hunting ground.

During the early Contact period, Native American and European American interaction was part of frontier life. Our knowledge of this interaction comes from many sources, including historic maps, explorers' journals, diaries of early settlers, town histories, and missionary records. Many Europeans recognized Native Americans as valuable sources of knowledge about the local geography and ecology. Information was being exchanged and not all interaction was unfriendly.

Farmers, Scouts, and Traders

French explorer Samuel de Champlain viewed the Vermont shores as he passed through the area; his 1609 written account described beautiful valleys and fields of corn. Some of these fields, tilled with bone and shell hoes, spanned miles in the Lake Champlain and Connecticut River valleys. "In the peren-

nial Vermont struggle to grow food 'between the frosts,' the Abenaki were unparalleled experts" (Moody 1991). Hardy Indian corn was a major crop of Vermont, grown well into the 19th century by Native Americans and non-Indians alike. Europeans learned from the Native Americans to collect maple sap. A favorite Native American food was hot syrup over popcorn.

Native American knowledge of the local geography and ecology made them valued as traders, healers, guides, and scouts to the foreigners and early settlers. One of their main transportation corridors centered on Lake Champlain that the Iroquois called the "Gate of the Country" (Daniels 1963). East of Mount Independence were two other main water travel routes of Native Americans, the Lemon Fair Creek and Otter Creek. Indians traveled on these water corridors in dugout and birchbark canoes. Records dating to 1720 indicate that Native Americans were also well-respected healers, sought for their knowledge of healing herbs and medical skills.

Foreign explorers brought radical changes to the Native American populations. Although traditional pottery and stone tools were still used, they were being replaced by European manufactured goods, such as iron tools including muskets, axes, hatchets, knives, and fishhooks, clay pipes, brass needles, and manufactured clothing and blankets.

Many times, even in advance of the settlers, European diseases attacked the native populations which had no immuni-

ties. As a result of these epidemics, within 100 years of European contact, an estimated 90 percent of the Native American population in the region had died from common illnesses like chicken pox.

In the 17th- and 18th-centuries, misunderstandings between Native Americans and European Americans led to violence. Although some British authorities respected Abenaki rights to the land and legally leased property from them, many viewed the land as a reward of war, lost by those like the Abenaki who had been allies of the French. Some Native Americans fought to keep others from taking their land. Others, including many Abenaki, moved deeper within their northern territory to Canada. The most famous place of retreat for the displaced Algonquins was the village of Odanak (St. Francis) in Quebec, Canada. Native Americans, like the St. Francis Indians, raided frontier towns in Vermont, New Hampshire, and Massachusetts. One of the most famous counterstrikes occurred in 1759 when Major Robert Rogers and his Rangers surprised the St. Francis Indians in an early morning attack, killing at least 200 and taking 20 women and children prisoners.

Issues and questions regarding the Native American legal rights continue. Vermont Abenaki, who in the 19th century often hid their heritage, now proudly affirm their ancestry and refer to Vermont as "Ndakinna," Our Land.

Native American Stone Tools

Stone tools are some of the most common artifacts on Native American sites. Unlike wood or leather artifacts, stone artifacts do not decay and provide important clues about activities of ancient peoples. Archaeologists who study stone tools and stone quarry sites are called lithic specialists. The term lithic comes from the Greek word for stone, "lithos." In Vermont, chert and quartzite were the most important rock types for manufacturing tools. Archaeologists rarely find complete tools when they excavate a site and instead recover parts of weapons or tools.

Mount Independence Chert and Trade Networks

A major concern of prehistoric Native Americans in the region was the location of good quality stone (lithic) material for their tool kits.

Quartzite is a coarse to fairly fine-grained, opaque, metamorphic rock. Chert, a sedimentary rock, is a dense, flint-like material found in nodules or irregular lumps. It has been described as "one of the hardest minerals" (Daniels 1963:24). When a chert cobble is struck, it splinters and flakes can then be chipped or ground to make a sharp edge. Mount Independence contains a large outcropping of black chert that Native Americans found suitable for stone toolmaking and trading with other tribes. Numerous geologists and archaeologists affirm the Mount Independence chert outcrops were important prehistoric sources of abundant, high quality chert. For thousands of

years, generations of Native Americans extensively quarried the outcrops of Mount Independence. In fact, Mount Independence chert is sometimes the only raw material of stone tools recovered from western Vermont archaeological sites (Peebles 1982). In addition to its use in the local area, it has been found at archaeological sites in the Upper Connecticut River Valley.

Evidence of extensive trade and exchange networks is also indicated by the presence of non-local lithic and metal artifacts on Native American Woodland sites in the region. For example, artifacts made of Ohio chert, orange Pennsylvania jasper, and red-brown chalcedony from the Midwest or the West have been found in the region. In addition, the Vermont Native Americans also had copper from the Great Lakes area and shells from the Atlantic Ocean.

Stone Tool Manufacture

Sometimes, for an untrained eye, it is hard to distinguish between a natural stone formation and an ancient stone tool. Water and wind action, as well as freezing and thawing phases, can carve and polish stones into shapes that look like man-made tools. Geologists and archaeologists look for certain signs that indicate patterns of chip or flake removal, retouching (sharpening), pecking, grinding, battering, abrading, and polishing to distinguish stone tools. In addition, sometimes the clues are the lithic material type itself or signs of heat treatment. Differences in Mount Independence chert quality may suggest that stones were heat treated to improve flaking properties and

increase the toolmaker's ability to control breakage during tool manufacture (Peebles 1982).

When stone was needed to make more tools, Native Americans made a trip to the quarry. Once a suitable stone source was selected, an individual would either break away chunks of rock with a hammerstone or build a fire beneath boulders to split them with heat. Chunks of rock could then be carried back to the workshop. Although we do not often consider rocks as being able to absorb moisture, another preparation method for toolmaking involved soaking the raw material in water for several days (Daniels 1963:24).

The surface (cortex) of the prepared stone was chipped off with a hammerstone, and additional chips removed with an antler or wood tool called a billet. The stone was formed into one or more "cache blades" or rough-shaped projectile points. These forms were manageable in terms of size and thus were easier to distribute, trade, and refine (Loring 1981).

Stone Tool Types

Many different types of stone tools were made and used by Native Americans living in Vermont including, spear and arrow points, knives, drills, scrapers, grinding stones, and wood-working tools.

Different activities required different tools. A tool used for skinning hides would not necessarily be useful for carving out a dugout canoe. In addition, the variety of habitats and the equally varied animal and vegetable species which were

exploited required many different tools and procurement techniques. Clearly, the same tool and technique to hunt woolly mammoth would not be suitable for hunting rabbit and deer.

Lithic technicians analyze different wear patterns, scratches, and marks to reveal how a tool was used. For example, microscopic analysis of a scraper can reveal whether it was used to scrape soft hides resulting in polished edges, or scrape hard wood resulting in crushed edges.

Hunting Tools

During different periods of Vermont prehistory, Native American hunting practices included the use of spear, an atlatl (spear thrower), and the bow and arrow. Projectile points and arrow points exhibit stylistic variations which date to different periods of prehistory.



Leaf-shaped Meadowood points and Adena stemmed points are two types of projectile points associated with the Woodland period that were found in the region. Projectile points such as these have often been found in graves, along with knives and scrapers which were tools used to butcher, cut, and prepare animal meat.

Food Preparation Tools

Other types of food preparation tools, such as pestles, choppers, anvil stones, and mortars, were used by the Native Americans for grinding, chopping, mashing, and cracking food products.

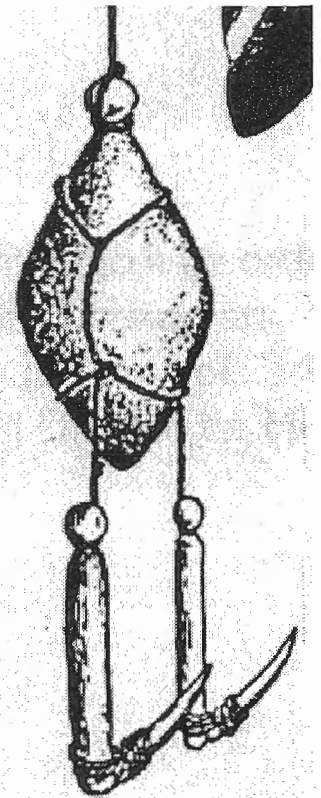
It is rare to find evidence of hide garments, bags, containers, thongs, and sinew because they decay. More common are the tools used to produce these, such as scrapers (for scraping animal skins and hides clean), drills, and bone awls (for punching holes in leather hides to sew them together).

Woodworking Tools

Woodworking was an important activity of Native Americans. It included the manufacture of dugout and birch-bark canoes. Tools providing evidence of this industry include axes, celts (ungrooved axe or hatchet similar to chisel), adzes, and gouges.

Fishing Tools

It is not common to recover fishing tools, which are usually made of wood or bone and thus subject to decay in Vermont's wet acidic soils. However, evidence of fishing is provided by the remnants of woven material and twined cord, barbed bone fishhooks and fish bones, perforated netting needles, and plummets. A plummet is a rounded stone



Gouge (next page) and plummet from C. Keith Wilbur, The New England Indians.

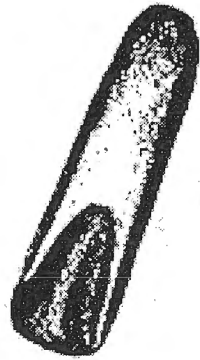
that was attached to a fishing line or net for weight, or tied together with a thong and thrown at an animal to trip it or strangle it.

Early European American History of Vermont and Mount Independence

In the 1600s, several European powers encouraged exploration of the North American wilderness and its ample natural resources, including timber and furs, which promised great wealth.

The earliest European explorers and colonists of New England left their homeland for various reasons. Many immigrants were workmen or servants hired out of British ports, or fisherman or sailors off ships bringing goods from Europe. Some intended to stay for just a season or two, while others believed the New World offered them a new chance and improvements over the economic and social hardships of their homeland. Some were, in fact, unwilling migrants, such as the Scottish prisoners-of-war exiled by Cromwell in 1651. Nevertheless, here as free men and women, they had a chance to become landowners in the colonial frontier.

In Vermont, the French and British were the main competitors fighting for dominion over the North American empire. Although the Dutch also claimed the East Coast, including Vermont, and named the region New Netherlands, their main settlement thrust was further southwest in New York.



French Domination of the Champlain Valley

At the beginning of the Contact period, the French called this new trading and trapping territory New France. Samuel de Champlain is said to have been the first European to see Vermont when in 1609 he traveled down Lake Petoubouque, the lake which now bears his name. He wrote:

Continuing our route along the west side of the lake, contemplating the country, I saw on the east side very high mountains, capped with snow.

Champlain was also caught up in an Indian conflict when his Algonquin companions met an Iroquois war party. Champlain's guides killed several individuals in the altercation which took place. In subsequent decades, an alliance between the French and Algonquins, including the Abenaki, persisted, and as French allies they frequently fought against the British forces.

The French occupation included the establishment of fur trapping regions, trade routes and posts. As European competition for the region escalated, the French government encouraged settlement and built a chain of forts along Lake Champlain in an attempt to stop British expansion and protect their vital water highway, trading posts, and growing population of fur traders and settlers.

The first French fort on Lake Champlain, Fort Ste. Anne was built in 1666. This fort, which included a chapel and housed Jesuit missionaries, became the first European American settlement within the present borders of Vermont. Beginning

in 1690 and continuing into the early 19th century, Lake Champlain and the surrounding region was enveloped in a long series of wars, the French and Indian Wars (Seven Years' War), the American Revolution, and the War of 1812. As the region became a battleground, forts that were built by one European power frequently were rebuilt and changed hands as major land and naval battles occurred in the region and the predominant European American power in the area shifted.

In 1731, the French occupied the strait known as Pointe à la Chevelure (Chimney Point), situated approximately 15 miles north of Mount Independence and Fort Ticonderoga. Previously, under the command of Captain Jacobus de Warm, a small stone British fortification had been erected and briefly occupied in 1690. In 1734, the first fortification, Fort de Pieux, was replaced by the first substantial fortification in the Champlain Valley. Located across the lake in New York, Fort St. Frederic was taken in 1759 by the British and renamed "His Majesty's Fort of Crown Point." Its expansion was one of the most ambitious British military projects undertaken in colonial North America.

Fort Carillon and French Activities on Mount Independence

In 1755, as tension between the French and the British escalated and winter approached, the Marquis de Lotbiniere began construction of a new fort at the south end of Lake Champlain near the outer edge of the French empire. This fort, Fort Carillon (pronounced Car-ee-own) that later became the

site of Fort Ticonderoga, was intended to command two possible invasion routes the British might take: north down Lake Champlain or east over the two-mile portage from the outlet of Lake George.

During the period when the French occupied Fort Carillon and controlled the Champlain Valley, East Creek, known as "Little Murray River," was considered "impenetrable woods." French activities, however, did take place on Mount Independence. Although archaeological evidence has not verified permanent French occupation of Mount Independence, it supplied valuable resources for the French. They had wood gathering and stone quarrying forays across the lake and archival evidence indicates during the 1750s the French established a stone quarry on the west flank of Mount Independence. Stone quarried here was hauled over ice across the lake to face the bastion of Fort Carillon. This quarry site is one of the points highlighted on the Blue Trail.

In addition, off the Orange Trail is a rock outcropping that is believed to be the remains of an earlier French blockhouse also dating to this period. Traces of mortar used by the French have been found. This spot may also be where the masts were put on ships of General Arnold's fleet.

Fort Carillon was lost to the British in 1759, when Lord Jeffrey Amherst successfully assaulted Fort Carillon and rebuilt and renamed the fort Ticonderoga.

The period of French predominance ended and following their loss of the French and Indian Wars, most of the French gave up their claims or were ousted by the British. Many early

French hamlets in Vermont disappeared as the French were driven north into Canada.

British Domination of the Champlain Valley Preceding the Revolutionary War

Following the French and Indian Wars, British authorities encouraged settlement of the Champlain Valley. Orwell was chartered by New Hampshire Governor Benning Wentworth on August 18, 1763, to Benjamin Underhill and 63 associates.

The name Orwell was most likely given in honor of Francis Vernon (1715-1783), Lord of Orwell (Suffolk, England) who was a clerk of the privy council and minister of the Board of Trade and Plantations. The motto of the House of Orwell was "So Act That You Secure Worthiness" (Orwell Historical Society 1988:2)

Even in this original charter the significant interrelationship of Orwell and Mount Independence with Fort Ticonderoga was made clear. One of the designated boundary lines of Orwell began "upon the eastern shore of Wood Creek [Lake Champlain], at a point due east from the flagstaff of Ticonderoga fort,"

Only three of the original grantees are known to have set foot in Orwell. These three, Benjamin and Reed Ferris and Benjamin Underhill, Quakers of Dutchess County, New York, came to Orwell in the fall to collect cattle payments for their rented lands.

Although most of the 17th-century colonists of Vermont

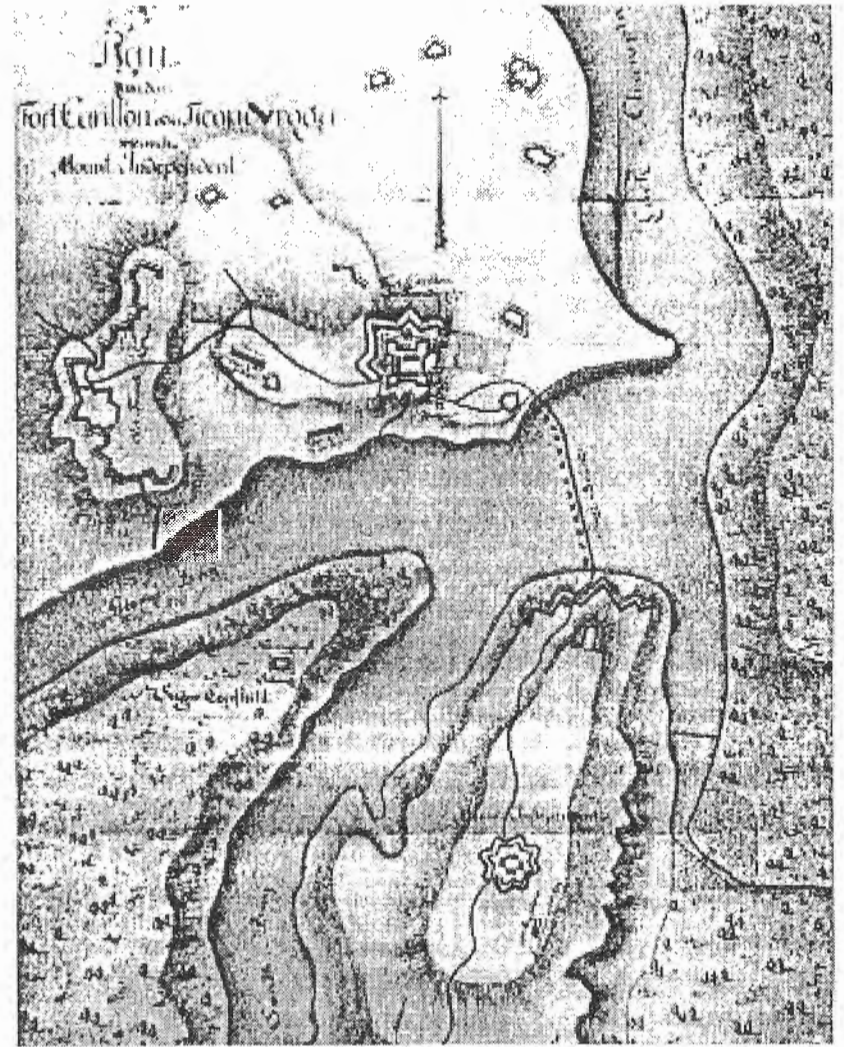
were Anglo-Saxon by birth or ancestry, the culturally diverse group included individuals who were not part of the British majority, such as those who hailed from Wales, Scotland, and Ireland. Renowned individuals who were of Scotch-Irish descent include Major Robert Rogers and General John Stark (1728-1822).

New York and New Hampshire Conflicts

The early settlement period of 1763 to 1783 included unrest and conflicts between the British powers in the region. Often called the Land Grant Wars, the controversy stemmed from a disagreement over who governed the region east of New York and west of the Connecticut River. In 1763 when New Hampshire Governor Benning Wentworth chartered Orwell, along with 37 other towns in what is now Vermont, King George III was debating the issue of who had the right to grant land in what is now Vermont. Ultimately, in 1764, King George III declared that New York and not New Hampshire had jurisdiction in the area. New York announced to the existing settlers (who had assumed control, in some case for many years, following grants by Governor Wentworth) that their land claims were invalid and, for many, would have to be repurchased. As the conflicts continued, Ethan Allen, owning land under a New Hampshire title, formed the Green Mountain Boys to protect his claims.

Vermont As a New Country in 1777

In 1770, after fruitless negotiations, many settlers joined or supported the Green Mountain Boys led by Ethan Allen and Seth Warner who had decided to take action and expel the New York sheriffs and surveyors. During the Revolution the controversy temporarily subsided and many Green Mountain Boys supported the fight for independence.



Suggested Readings Native Americans

Brink, Jeanne and Gordon Day, Alnobaodwa: A Western Abenaki Language Guide. Franklin Southwest Supervisory Union, Title V Education Office, Swanton, Vermont, 1990.

Bruchac, Joseph, The Wind Eagle and Other Abenaki Stories. Bowman Books, Greenfield, New York, 1985. The Faithful Hunter. Bowman Books, Greenfield, New York, 1988.

Crompton, Anne Elliot, The Ice Trail. Methuen, New York, 1982.

Currance, Pam, Vermont's Original Inhabitants: An Elementary School Guide to Prehistory. Vermont Historical Society, Montpelier, Vermont.

Haviland, William A. and Marjory W. Power, The Original Vermonters: Native Inhabitants, Past and Present. University Press of New England, Hanover, New Hampshire, 1994.

O'Neil, Margaret, Growing Up in Vermont. Lane Press, Rutland, Vermont, 1950.

Walkman, Carl, Atlas of the North American Indian. Facts on File Publications, New York, 1985.

Resources, Native Americans

Carlson, Richard G., Perspectives 76. Eds., Dell Goodwin and Dorcas Chaffee, Regional Center for Educational Training, Hanover, New Hampshire, 1975.

Calloway, Colin G., The Abenaki. Chelsea House, 1989.
The Western Abenaki of Vermont, 1600-1800: War, Migration, and the Survival of an Indian People. University of Oklahoma Press, Norman, Oklahoma, 1990.

Daniels, Thomas E., Vermont Indians. Journal Press, Poultney, Vermont, 1963.

Haviland, William A. and Marjory W. Power, The Original Vermonters: Native Inhabitants, Past and Present. University Press of New England, Hanover, New Hampshire, 1994.

Huden, John C., Indian Place-Names in Vermont. Vermont History Volume XXIII, No. 3. Vermont Historical Society, 1955.

Lacy, David, 1997; Personal Communication.

Loring, Stephen, An Appraisal of Vermont Archaeology 1972. Unpublished manuscript prepared as senior honors thesis, Goddard College, Plainfield, Vermont, 1972.

Moody, John, Absolute Republic: The Abenaki Nation in 1791. In Vermont Bicentennial, Volume 3, Number 4, 1991.

Olson, Godfrey J., Certain Archaeological Investigations in the Lake Champlain Valley, Including the Orwell, (Vermont) Burial Site.

Orwell Historical Society, 1988 A History of the Town of Orwell, Vermont.
Orwell Historical Society, Orwell.

Smith, H.P., 1886 History of Addison County, Vermont. D. Mason,
Syracuse, New York.

Suggested Readings

Early Settlers

Axtell, James, The Invasion Within: The Contest of Cultures in Colonial North America. Cultural Origins of America, Vol. 1. Oxford University Press, New York, 1985.

Brault, Gerard, The French-Canadian Heritage in New England. University Press of New England, Hanover, New Hampshire, 1986.

Coolidge, Guy Omeron, The French Occupation of the Champlain Valley, 1609-1759. Harbor Hill Books, Mamaronek, New York, 1989.

Resources

Early Settlers

Child, Hamilton, 1882 Gazetteer and Business Directory of Addison County, VT, for 1881-82. Journal Office, Syracuse, New York.

Murray, Eleanor, 1967 Mount Independence in Time of Peace, 1783-1960. Vermont History, Volume XXXV, No.2.

We were there . . .

The Legends of the Abenaki

Imagine growing up without books, a television, or computer screen. How would you learn about places you have never been to? How could you begin to imagine the lengthy past and what might be in store for you in the future?

Native Americans like the Abenaki celebrated their connection to the natural world in stories and legends handed down from generation to generation. They "drank in the wisdom of the tales they heard around the winter hearth fires" (Calloway 1989:25). People sang and told stories to entertain, preserve their ancient memories, teach right from wrong, and explain how the world was created and operated.

Like Greek legends and ancient Bible stories, the Abenaki legends include stories of creation, conflict between good and evil, deeds of powerful animals and heroes, and explanations for the origin of elements of our natural world, including the wind, waters, sources of food, and the seasons. For example, an Abenaki legend explains the autumn change is due to a star huntsman who in slaying the celestial Great Bear has spilled his blood, which "dyes the leaves in scarlet hues" (Calloway 1989:17).

In the legends, the Creator of the World, or Owner, is Tabaldak. Tabaldak made the world. He also made the first

people. In his first attempt, he made people from stone. When he found them too cold and hard, he tried again and created the new people from wood. They became part of the natural and living order of things.

From the dust Tabaldak brushed off his hands, Odzihozo (who is also called Gluskabe by others than the Western Abenaki) formed himself, which is why he is called "The Man Who Made Himself From Something." Even before Odzihozo was complete and had legs, he dragged himself along the earth gouging the river valleys including the Lake Champlain Valley and piling the dirt with his hands to form the mountains. Although he was not as powerful as Tabaldak, Odzihozo had power to change things, sometimes for the worse (Bruchac 1985). But like the many great heroes of the past, Odzihozo, who called the Abenaki his grandchildren, searched for things to transform so his children and descendants would not have such a hard time. For one thing, he transformed big waterfalls so they were not as dangerous. Odzihozo, however, often learns that there is a natural balance, a harmonious relationship, which should be maintained in the world (Calloway 1989:25). For example, he learns that although the wind can be bothersome and create havoc, we need the wind to keep the air cool and

clean, to bring clouds which give us rain to wash the earth, and to move the waters and keep them fresh and clean (Bruchac 1985:12).

Odzihozo's last creation, his masterpiece, is said to be Lake Champlain. The legends associated with Lake Champlain indicate that for the Abenaki it was homeland and a place of spiritual significance. Odzihozo liked it so much that he changed himself to stone in Burlington Bay so that he could sit there and enjoy the lake.

Some of the other characters of the Abenaki legends are Grandmother Woodchuck (who pulled all of the hair from her belly to make a magical hunting bag for Gluskabe), Odzihosqua (The Woman Who Made Herself), Malsumis (Gluskabe's evil brother), Pedewad (the old transformer), and Wuchowsen (the Wind Eagle who makes the wind blow when he flaps his wings).

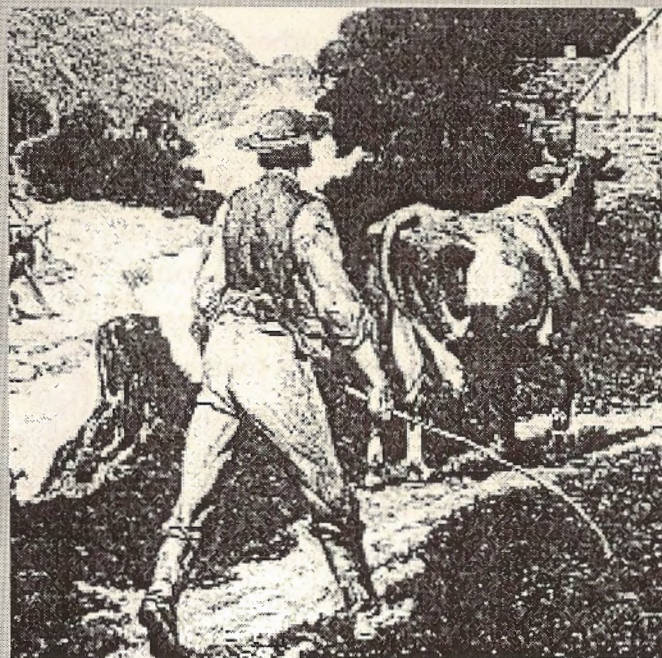
We were there . . .

John Charter, Sutler and Farmer

Orwell's first European American settler, who occupied land on Mount Independence, was John Charter, an emigrant from Scotland. The massive infusion of Scotch-Irish into the Colonies began in 1718 when shiploads of immigrants, fleeing from the bad times and potato famines, disembarked in Boston. Charter arrived in one of the subsequent waves of Scotch-Irish immigrants to the American colonies following the defeat of the French in 1760. Charter procured a boat in Montreal and embarked up Lake Champlain with his family. They settled in 1771 on the north end of Mount Independence near the lake shore. With the exception of a small garrison stationed at Ticonderoga on the opposite side of the lake, there were no other European inhabitants in the near vicinity.

Prior to the onset of the Revolution, Charter and his large family (which included his wife and 10 children) cleared

the land and built a house. A 19th-century historian stated, "The farm he selected has always been considered the most fertile and productive of any land in town" (Smith 1886:558).



"Indian Neighbors"

Collection: National Life Insurance Company,
Montpelier

When the events of the Revolution escalated in the area and American troops were quartered at Mount Independence, Charter temporarily left the area. It has been said that he was a Tory, in addition to being an "eccentric Scotchman" with an independent spirit (Child 1882:185; Orwell Historical Society 1988:21).

After the Revolution, in 1783, John Charter returned to his Mount Independence homestead thereby establishing the first permanent settlement in Orwell. Eleanor Murray, former curator of Fort Ticonderoga (1967:111), liked to think it was "John Charter's little cabin that appears in the very early paintings (of the area)." Charter and his family continued to reside on the farm until 1808 when he sold the farm and moved west with his sons.

Objectives:

- To teach students to become aware of the seasonal cycle of activities in their lives.
- To study the culture of the Abenaki

Target Ages:

Grades 3 - 6

Class Orientation:

Individual

Time Needed:

20 minutes

Materials:

- Personal Seasonal Cycle Chart on
- Paper
- Pencil

Seasonal Life Cycle of the Abenaki

Introduction:

Survival in Vermont for the Abenaki as well as for contemporary farmers and other residents has been closely linked with the rhythmic cycles of nature and changing seasons. The Abenaki mobility prompted early Europeans to call them "nomads" (Calloway 1989:21). For thousands of years Native Americans, in separate bands, moved with a purpose, following a careful seasonal pattern in order to exploit specific resources and take advantage of the many resources in their environment. The people of the Abenaki nation, maintaining hundreds of retreats around each population center, could move as necessary for defense, sanctuary, and security. You might say they put themselves in the right place in the right season. Seasonal migration such as this also ensured the resources of the region were not exhausted. The annual subsistence rounds of hunting, fishing, planting, harvesting, and gathering occupied much time and energy of the Abenaki. The following illustration shows the seasonal life cycle of the Abenaki and what the original Vermonters did during different seasons of the year.



Seventeenth-century engraving of New England Indians making maple syrup and planting corn. From Colin Calloway, The Abenaki, Chelsea House

EARLY SPRING

(late March to early June)

- Return to communal village, along coastal fishing grounds or river valleys, where tribes encamped together.
- Fish for salmon, shad, bass, sturgeon, and smelt
- Hunt fowl (geese, ducks, gulls, pigeons)
- Gather early spring plants
- Clear and plant fields around villages with maize (corn), beans, squash, pumpkin, tobacco
- Make diagonal cuts in maple trees and place wood chips to direct flow of sap into birch bark pails or pottery containers, gather sap, and boil over hot embers

LATE SPRING/SUMMER

- Fish
- Harvest shellfish
- Hunt sea mammals
- Hunt small animals to eat immediately
- Gather edible plants such as milkweed and sumac, nuts, and berries (blueberries, blackberry, strawberry, raspberry, elderberry)
- Gather wild plants to produce cordage, textiles and bags
- Tend planted fields
- Make pottery
- Trade (main season)

FALL/EARLY WINTER

- Move from lowlands to upland forests for main hunting season
- Break up into smaller family groups
- Hunt large animals as moose, deer, and bear, as well as, small game rabbits, bobcats, squirrel, porcupine, beaver, muskrat, waterfowl, fowl
- Smoke and dry fish and meat for winter
- Process animal skins
- Harvest crops
- Grind corn with stone or wooden pestles
- Gather edible nuts (chestnuts, acorns, beechnuts, black walnuts, hickory, butternuts, filberts)
- Collect cattails for food, baskets, and other purposes
- Dig root cellars and line with mats or birch bark to store food
- Store corn, nuts, and dried berries for winter

WINTER

- Return to communal village
- Ice fish
- Stalk and hunt game
- Attend ceremonial mid-winter feast

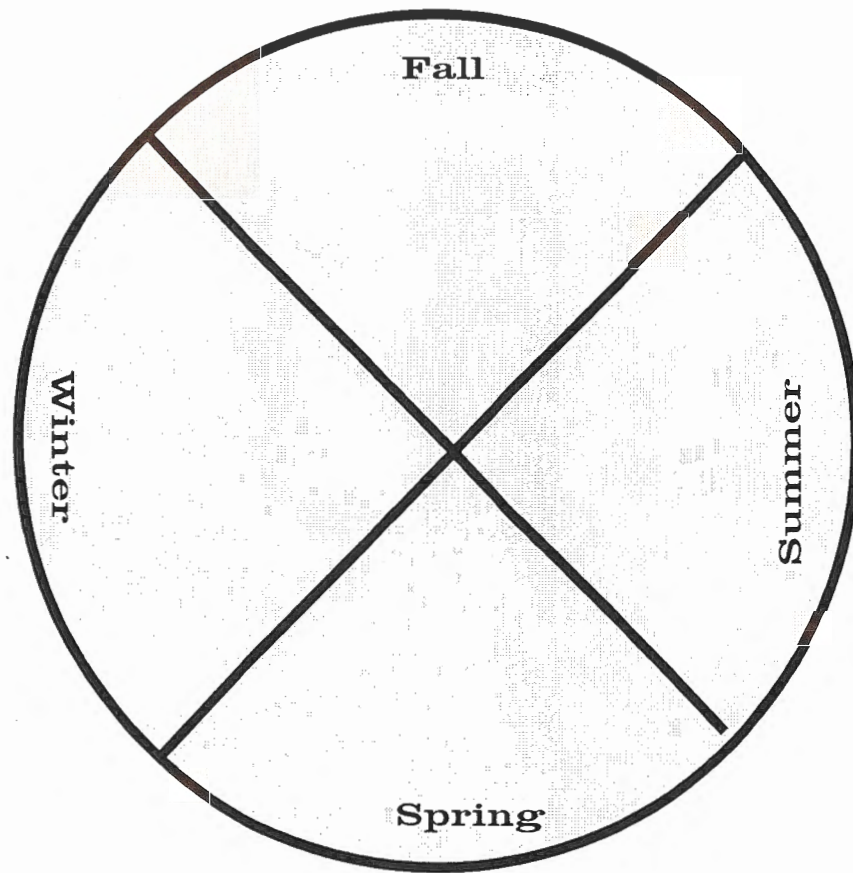
Seasonal Life Cycle of the Abenaki

Whispered Echoes from the Mount:

"This battery, however, had, through the folly of an Indian, nearly been productive of fatal consequences to the 9th regiment, for just at the time it was passing the bridge [from Fort Ticonderoga to Mount Independence], as he was very curious in examining everything that came his way, he took up a match that lay on the ground, with some fire still remaining in it, when a spark dropping upon the priming of a cannon it went off loaded, with all manner of combustibles; but it fortunately happened that the gun was so elevated, no mischief ensued." Thomas Anburay, 1791 Travels Through the Interior Parts of America: in a Series of Letters By an Officer, Arno Press, New York, 1969.

Activity:

Copy this chart, enlarge if possible. Fill in the chart with various things that you and your family do during different seasons of the year. Determine whether any of the activities are similar to those conducted by the Native Americans. Do we possess similar needs? Do we perform similar activities? Are the tools similar or have they changed?



Objective:

To have students integrate the information on the patterns of Native American prehistory and envision themselves "in their moccasins".

Target Ages:

Grades 3 - 8

Class Orientation:

Individual

Time Needed:

20 minutes

Materials:

- Birch bark (or paper)
- Writing tool

Place Yourself in Their Moccasins:

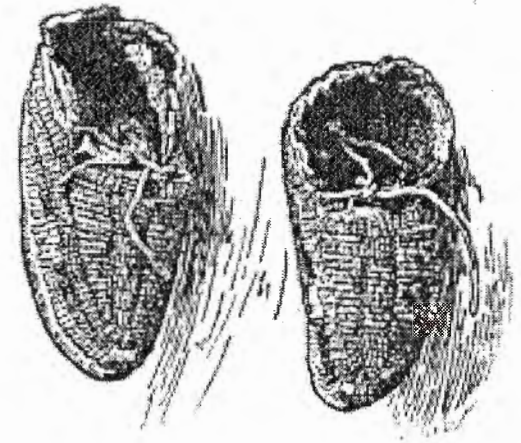
Diary of a Native America

Introduction:

Few written records exist describing firsthand, the seasonal activities and feelings of Native Americans. We often must rely on artifacts and their context (recovery location) to make some assumptions about their lifestyle.

Activities:

- Imagine you are a Native American in Vermont. Choose one or more periods of time. Are you living 10,000 years ago during the Paleoindian period, 5,000 years ago during the Archaic period, 2,500 years ago during the Woodland period, 350 years ago during the Contact period, or about 225 years ago during the Revolutionary War period?
- Write about your surroundings describing the environment including the weather, the plants and animals, the activities you perform associated with seasonal cycles, your family, your needs, and your wants.
- Create a song, tale, drawing, mural or diorama depicting the Native American period you imagine you are living in.



What Shape Is Your Shelter?

Introduction:

Learning about shelters is a good way to learn about animal behavior and human cultural universals or elements of human behavior around the world that result in similar activities and/or solutions. Although prehistoric people initially camped in caves and rock shelters, they found they could build more comfortable shelters to meet their needs and protect them from the elements. Have you noticed that humans usually build shelters in five basic shapes--dome, cone, cylinder (or tube), cube, or rectangle?

The shape of the shelter constructed is based on the natural environment, the materials (resources) that are available, whether the people are nomadic or sedentary villagers, and the number of individuals intended to reside in the shelter.

Nomadic people, who move about from place to place seasonally are more likely to choose the dome or the cone. Temporary shelters in these shapes are the quickest and easiest to build. Domes have been used around the world throughout time. In fact, historians think that the dome was probably the first shelter built by man. A dome can be made of almost any material. The most common type is made of a frame of saplings cov-

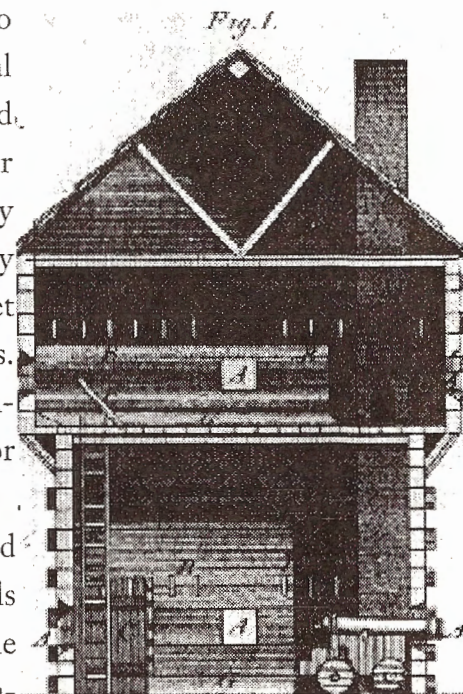
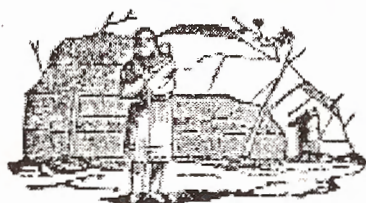
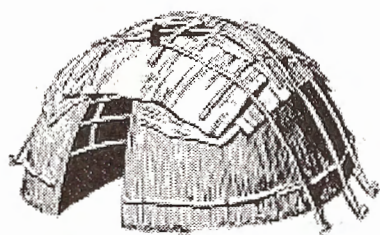


Fig. 1.

ered with grass, thatch, leaves, mud, or hides; however, the environment often determines the structural material used. For example, in less than a day an Eskimo hunter can build an igloo (dome) made of ice that will last until the spring thaw.

Algonquin Indians including the Abenaki built two different types of dwellings. The wigwam was a domed-shaped hut, often 10 to 12 feet in diameter, with sapling or wood pole framework lashed together with strips of elm bark or cedar roots (Daniels 1963:25). This framework was then covered with slabs of elm or birch bark and grasses. It is likely the wigwams were banked with earth and leaves for insulation. A hole in the top let out smoke. One wigwam usually housed 2 to 4 related families. The early European explorers described Native American villages in Vermont as groups of wigwams surrounded by palisades of logs. Portable housing, such as this, was easily dismantled and essential to the Algonquins who moved regularly to take advantage of the many resources in their environment.

A cone-shaped structure, like the tepee of the Western Plains Indians, is also a good solution to shelter for nomads. The covering and poles of a tepee can be taken down and carried from place to place.

Cylindrical-, rectangular- and cube-shaped houses usually require a roof, which makes them more difficult to build. These structures are more common in villages and other permanent settlements. In addition to wigwams, Algonquin Indians and the Iroquois built rectangular long houses ranging between 50 to 100 feet long. These larger, sturdier, and more permanent dwellings, sheltered 8 to 10 families in the central villages. The longhouse framework created a gabled (triangular) roof and was covered with bark, stitched together with rawhide lacings. One or two openings allowed smoke to escape.

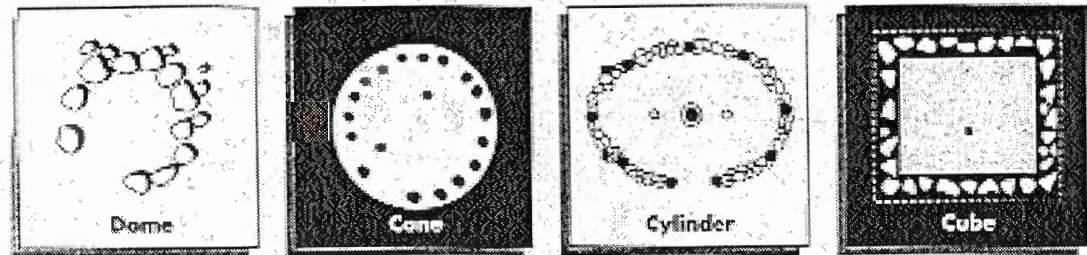
These solutions to sheltering needs, a cultural universal, are the most common. Variations can be found. For example, the nomads of the Sahara use square tents and the Caddo Indians of Texas built permanent cone-shaped houses of grass.

Footprints of Shelters

Throughout time, people have built shelters using five basic shapes: dome, cone, cylinder, cube, and rectangle. Archaeologists study evidence of shelters abandoned long ago to learn about the people who built them. By the time an archaeologist excavates the site of a shelter, the only thing left may be its "footprint." This footprint can be a mound of dirt, a hole in the ground, round dark stains in the soil from rotted wooden posts, an area of hardened mud, a pattern of fire-cracked rocks.

Learning about houses from their footprints presents problems. For example, three of the five basic shapes have circular footprints. To know which is which archaeologists have to be detectives and study many kinds of clues. Some of the most important clues are found in the dirt. As archaeologists study a site they do more than recover artifacts. They also record the location and patterns of the artifacts (distribution) and changes in the soil. Dark round stains in the soil may be evidence of the decayed remains of wood poles or log shelter supports. An area of hardened earth may be the remains of a dirt floor or road. Openings may indicate where the door was.

Notes:



Archaeologists must also determine which artifacts were associated with which parts of the structure. Does the roofing material differ from the walls and the foundation? Were all parts of the building constructed at the same time, or did the structure evolve and change through time?

Objectives:

- To explore, compare and contrast human shelters
- To consider what types of shelters might have been used on or near Mount Independence

Target Ages:

- Grades 3-8

Class Orientation:

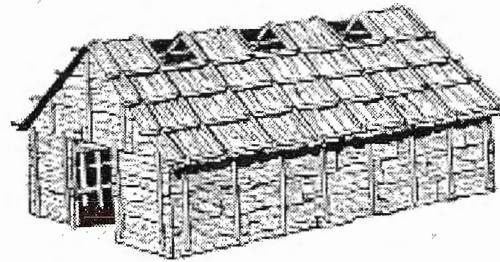
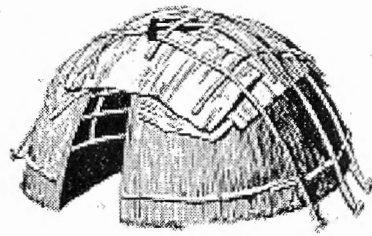
Individual

Time Needed:

20-40 minutes

Materials:

- Oak tag
- Paper bags
- Birch bark or other natural material



Activity:

Making a Wigwam

- Cut oak tag into 1" wide strips approximately 12" long.
- Create frame for the wigwam or long house using oak tag strips using one strip as "base board" and attaching other strips to create the domed roof. The frame of the wigwam will look like a crown.
- Cut paper bags into approximately 2" by 2" squares.
- Glue squares to frame.
- Cover surface with birch bark or other natural material.
- Cut holes for smoke hole and entry.
- Gather natural materials to create an environmental setting in which to place wigwam or long house.
- Draw examples of shelters in each of the five basic shapes: dome, cone, cylinder, cube and rectangle. Discuss their differences. Are some more common in one region than another? Do some houses in your town combine two or more of these shapes? What is your house built of? What did the Native Americans and early European settlers in Vermont use to build their houses, their business establishments and other structures? Where did they get these building materials? How did changes in transportation affect their choices?

Objective:

- To make pottery using a traditional Native American technique: the coil method.

Target Ages:

Grades 3 - 8

Class Orientation:

Individual or pairs

Time Needed:

40 minutes

Materials:

- Clay (Native Vermont clay such as cohesive Vergennes clay or modeling clay)
- Grog or temper (crushed limestone, shell, bone, or fine river-washed gravel)
- Flat river stone
- Various objects for applying surface decorations (e.g., pointed sticks, shells, fabric, netting, cord-wrapped sticks or popsicle sticks)

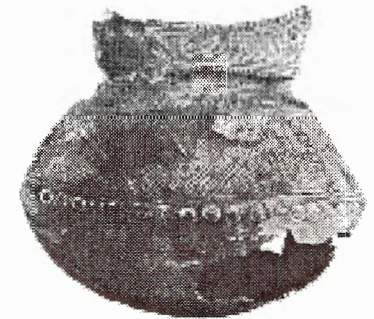
Pottery Making

Native American Methods

Introduction:

Pottery making was an important Abenaki craft begun in the Woodland period. Before pottery, Native Americans filled woven baskets, birchbark containers, or soapstone bowls with water, soups, and liquids and warmed them by adding heated rocks. Clay pots were an improvement over these as they were easily fashioned from abundant local clay deposits, lightweight and relatively durable and heat resistant. In addition, the surface of the vessels could be decorated. Decorated sherds (pottery fragments) often provide clues for their method of manufacture and cross-cultural affiliations. For example, one of the most famous pottery vessels (pictured here) found in Vermont is an Iroquois jar found in Colchester.

The hardpan Vergennes clay in the East Creek region of Orwell was suitable for the manufacture of pottery. In fact, although Native Americans fired the vessels in hot coals, often Vergennes clay will hold a shape even after it is sundried! The compactness of the local clay was recognized during the Historic period as well, when the local clay beds were mined for the manufacture of bricks (Child 1882:183). One problem archaeologists have found with the prehistoric pottery made of Vergennes clay is that it is often hard to recognize deteriorated pottery fragments from natural clay formations.



Native American ceramic pot found in Vermont. "Colchester Jar" (A.D. 1400-1580) made by St. Lawrence Iroquois. Courtesy: Robert Hull Fleming Museum. From The Original Vermonters.

The most common method of pottery making was the coil method in which long coils were made and spiraled around the base to form the sides of the vessels. The coils were then smoothed out with paddles.

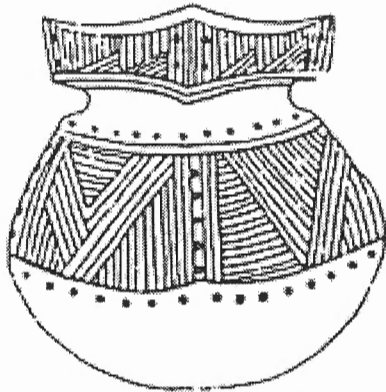
Bases of vessels are not always flat. For example, the East Creek village site contained pots with conical or pointed bottoms classified as Vinette I ceramic types. Similarly the rims or collars of the vessels might be straight, slightly flaring, or squared.

The surface treatment of the prehistoric ceramic vessels display a myriad of decorative techniques and elements which exhibit artistic expression. Some of the traditional decorative elements are incising, banding, roulette wheel, paddle, and cord marking, stamping, and fabric and shell impressing. Geometric designs and lines are common.

The personality and clear connection with the craftsperson is always inherent in each vessel. This is especially apparent on some sherds which display the fingerprint of the ancient craftsperson!

Activity:

- Mix 3 parts clay to 1 part grog to prevent the clay from cracking. (If using local clay, remove small rocks and pebbles.)
- Add water if necessary and knead clay to spread grog and make clay mixture uniform and pliable.
- Flatten a round disc for the base of the vessel. Bend edges up to form a shallow bowl.
- Roll out several long coils of clay. Spiral these around the perimeter of the base to create the body or walls of the vessel.
- With a flat river stone, fuse the coils together and smooth the interior and exterior of the vessel walls.
- Form the rim and lip of your vessel. It can be flat, rounded, collared, scalloped or castellated (castlelike with turrets)
- Apply decorations to the surface of the vessel using various tools such as a pointed sticks, shells, fabric, netting, cord-wrapped sticks. See the chart for samples of common Native American design elements.



Notes:

- Allow clay pot to dry thoroughly or place in stove or kiln. Native Americans fired their vessels by covering them within a bed of ashes and wood coals. After many hours, the fire was allowed to burn out. Minerals in the fired clay often resulted in different vessel colors such as grey, black, tan, and orange.



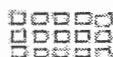
•Rocker Stamp



•Shell Impressed



•Reed Punctuate (use reeds)



•Check Stamp



•Incised Line



•Fabric Impressed



•Cord Wrapped Stick



•Iroquois Castellation (Abenaki used)

Stone Tool Sleuth

Objective:

- To learn research techniques, including inquiry, and documentation.

Target Ages:

Grades 3 - 8

Class Orientation:

Individual or pairs

Time Needed:

20 minutes

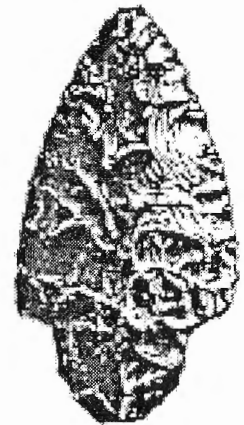
Materials:

- Paper
- Pencil

Optional:

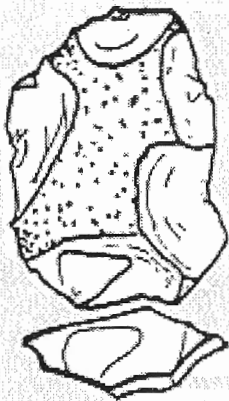
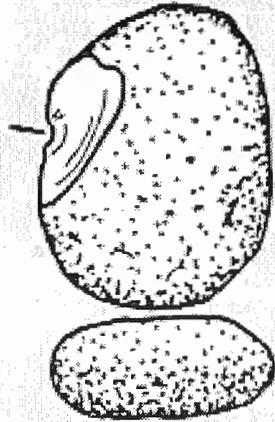
- Ruler or tape measure
- Camera and film

- Does someone in your neighborhood have a private collection of Native American artifacts? Learn where and how they were recovered. Document this information. Sketch or photograph and describe each artifact in detail. Include a map of the site. Duplicate this information and send to your local historical society and your State Archaeologist (Vermont Division for Historic Preservation), so it can be included in a file concerning Native American activities in your region.
- Visit a museum, such as the Chimney Point State Historic Site, that has a collection of Native American artifacts. Draw and describe at least five different objects. What are they? How were they used--for hunting, fishing or trapping?
- Find your own unique rock, not an artifact. Describe its features, such as shape, material type, inclusions, color range, size, texture, etc. Use the stone for cutting a small stick, mashing roots, grinding corn, scraping the bark off a stick. Was the surface of the stone modified by any of these activities?
- Create your own tool. Make a tool to turn on your television or computer, or turn the pages of a book. What features would be important. What material(s) will you use to create this tool?



Adena Point

- Bring to class one unique tool or utensil. It does not have to be Native American in origin. Write five details about your tool. One should refer to the age of the object or how long it has been in use. One detail should explain what other items would be found in association with it. One detail should describe its function, how it was used. Have the class guess which tool is yours and what it is called. How does this compare to the way an archaeologist determines the use of prehistoric stone tools?

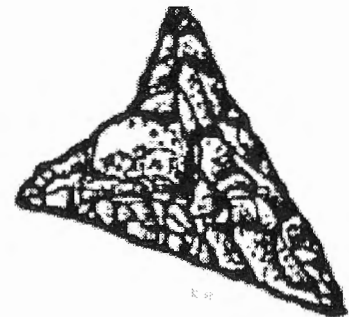


Stages of Chipping a Stone Tool

Using an oval hammerstone, the cortex (exterior surface) of a cobble is chipped off.

When most of the cortex is removed and only the most prominent ridge or humps are left, the cobble core is thinned and flakes are removed to shape the final surface.

The edges of the new tool are then retouched to straighten and sharpen them to form the specific tool desired: an arrow point, knife, scraper, etc.



**Levanna Arrow Point
(Woodland Period)**

Objective:

To match the New England place names with their original or translated Native American name.

Class Orientation:

Individual

Time Needed:

15 minutes

Materials:

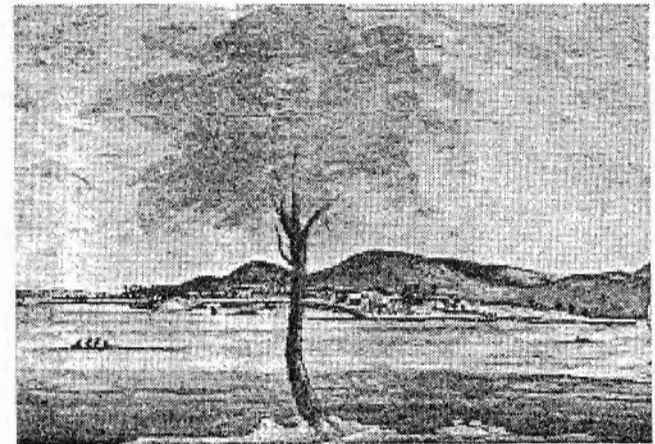
- Pencil
- Place Name Activity Form (see next page)

New England's American Indian Place Names

Introduction:

Did you know clues to past cultures and history can be found in names of places? For example, evidence of the important role of Native Americans in our history can often be found in the names of states, towns, and geographical features such as rivers and streams? In fact, the names of more than half of the states in the United States derive from Indian words. For the most part in Vermont the Native American place names stem from Western Abenaki.

The Abenaki speak a dialect of a language called Algonquin. The Algonquins including the Abenaki were the largest Native American linguistic group in North American. Their range extended from Nova Scotia to Cheyenne territory in the Rocky Mountains. The Abenaki of Vermont belonged to the Eastern Algonquin language branch.



1. prehistoric
2. Algonquin and Iroquois
3. chert
4. woodland
5. projectile
6. Abenaki
7. scraper
8. wigwams
9. seasonally
10. a trail

Prehistory Answers are in capital letters.

- J. Otter Creek - Pecouk-took (Crooked River)
- I. Massachusetts - Massa Wachusett (great hill, from two Algonquian words)
- H. Lake Champlain - Pe-ton-bowk (Waters that Lie Between [the Abenaki and Iroquois]; Canadert-Guarante [Gateway of the Good] Land or Door of the Country, in Iroquois)
- G. Lake Bomoseen - Mas-kee-koh-wo-gam (Big pond with grassy banks); Bomoseen was an Indian Chief from Maine)
- F. Fair Haven - Cooksack (Snake Place)
- E. Connecticut River - Kwin-teguh (the long river)
- D. Chimney Point - Chemaun Nayang or Shemoanock (a canoe point of land)
- C. Burlington - Mis-ra-sen-nce (Huge Rock, referring to the large boulder at Lone Rock Point)
- B. Brandon - Neshobe (Clear running water or Place very full of water, taken from Masba-ak)
- A. Addison - Wal-oi-as muh-dip (Owl's Head)

Place Name Answers:

Activities:

Native American Place Names

Match these New England places names with their original or translated Native American names.

- A. Addison
- B. Brandon
- C. Burlington
- D. Chimney Point
- E. Connecticut River
- F. Fair Haven
- G. Lake Bomoseen
- H. Lake Champlain
- I. Massachusetts
- J. Otter Creek

Native American Prehistory on Mount Independence

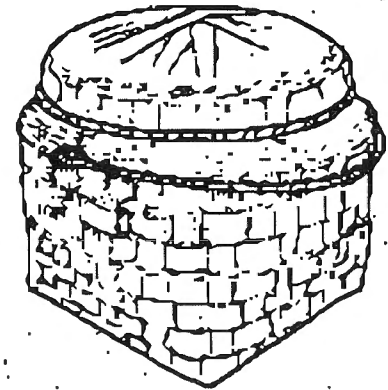
Fill in the Blanks

1. For North American archaeologists, pre_____ indicates before written records of the Contact period.
2. Two Native American cultures inhabited the Mount Independence region, the _____quin and the _____quois.
3. Mount Independence contains ch_____ outcrops which were quarried as a source for manufacturing stone tools.
4. Ceramics, agriculture, and the bow and arrow are associated with the _____land period of Native American prehistory.
5. Most stone tools used before the bow and arrow are classified as pro_____ points.
6. The Ab_____ are the predominant modern Native American culture in Vermont.
7. A s_____ was the stone tool used to scrape hides.
8. Instead of tepees, Native Americans of Vermont constructed w_____ and .
9. Native Americans moved sea_____ to take maximum advantage of different resources.
10. The unique hunting tool introduced during the Archaic Period was a spearthrower or a_____

Notes:

Related Activities:

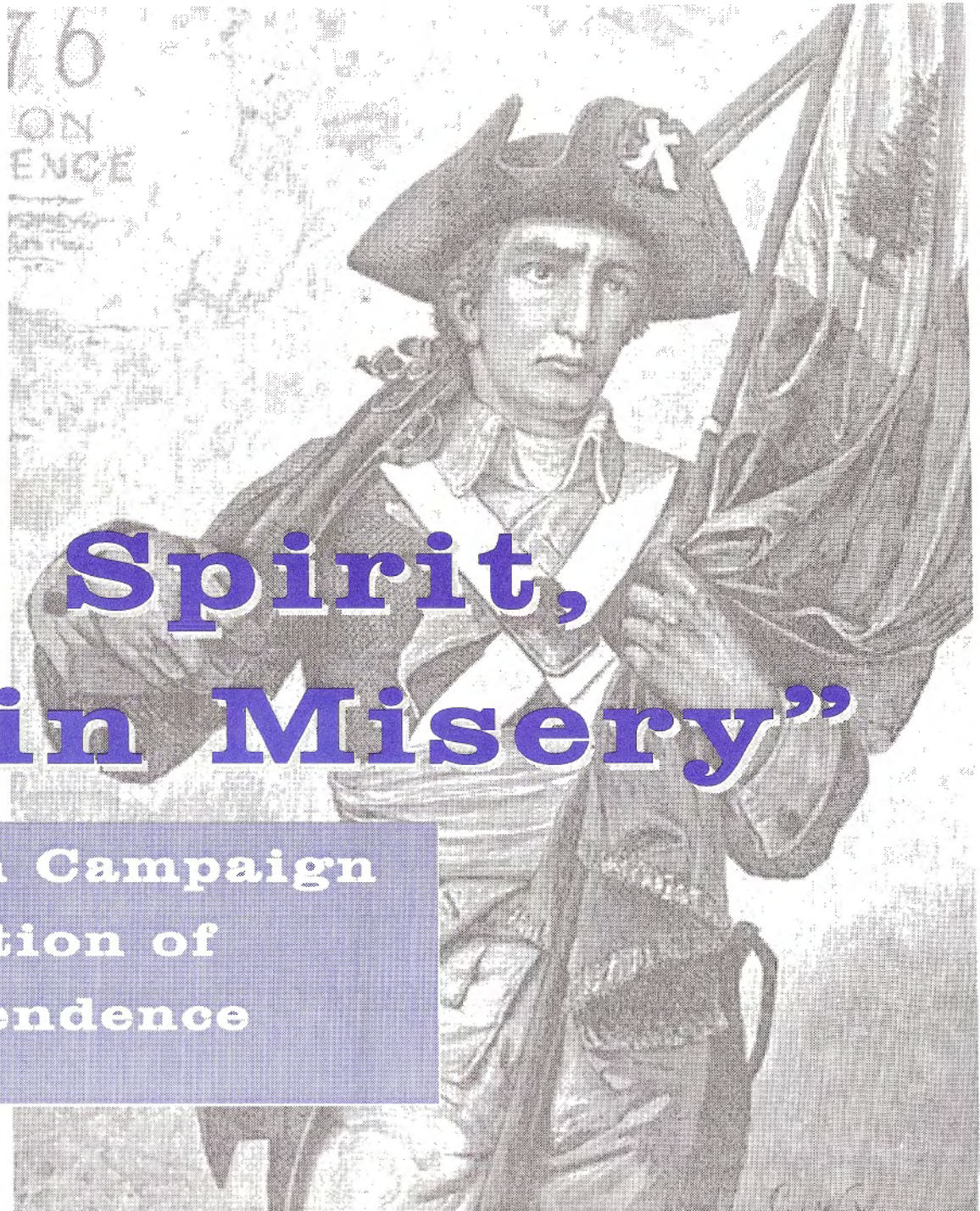
- Look up the definition of primitive in a good dictionary. Assign groups to use each of the different meanings of the definition in describing our culture. Compare their answers.
- Learn about one Eastern Algonquian tribe (i.e., Abenaki, Mahican, Massachusetts, Penobscot, Narraganset, Pequot, Montauk, Wappinger, Delaware or Lenape, Powhatan, Naskapi) or Iroquois tribe (League of Five Nations: Seneca, Cayuga, Onondaga, Oneida, Mohawk, Tuscarora). Learn about the history of the tribe, their dwellings, food preparation, dress, religious beliefs, lifestyle, language, warfare, historic territory, and their current central location and political status.
- Read a Native American legend.
- Make an Indian costume or article representing the tribe you studied.
- Prepare a Native American food recipe.
- Learn a Native American dance.
- Tell about five things adopted by others from Indian culture.
- Learn 10-25 words or phrases in Abenaki.
- Learn 10-25 Vermont place names that originate as Indian words. Tell their origin and meaning.



4

“With Spirit, Yet in Misery”

**The American Campaign
and Fortification of
Mount Independence**



“With Spirit, Yet in Misery”

The American Campaign and Fortification of Mount Independence

Along with Fort Ticonderoga, Mount Independence comprised the first line of defense against the gathering British forces quartered in Montreal and Quebec. Raised from the rocky Vermont soil under the most adverse conditions Mount Independence was built with the blood and sweat of determined men, many of whom never dreamed of being soldiers. The Mount epitomized the courage, ingenuity, and fortitude of the colonists as well as the convictions and ideals they held concerning personal freedom. This chapter explores a soldier's life on the Mount: what it was like to march on the parade ground, sail with Benedict Arnold, and lay out a regimental campground.

The military complexes at Fort Ticonderoga, Skenesboro, and Mount Independence built our country's first navy and developed a new sailing vessel. Renowned characters, controversial then and now, such as Ethan Allen, Benedict Arnold and Arthur St. Clair have been highlighted for study and can be used as focal points for lively debate.

Classes or large groups might re-create a Mount Independence military day, lay out the classroom as though it were a regimental encampment and practice drills. Planning skills, problem solving, math, physical education, art and music are all combined with history and reading in a multidiscipline unit of study.



More Is Brewing in Massachusetts Than Tea

During the mid-1700s, tensions continued to grow between the colonies and England. Colonists resented English import regulations and lack of colonial representation in government policy making. Irritation began to focus on the increasing number of British soldiers, housed and fed at colonial expense, being sent to major New England cities. Feelings eventually turned into actions on that eventful day in Lexington, Massachusetts that the "shot heard round the world" made history.

A Hot Winter in Boston and Trouble in the Grants

The shock waves set into motion by the skirmish on the Lexington Green began to ripple outward through the colonies and across the Atlantic. Talk in England's Parliament shifted from rumors of unrest to accounts of direct rebellion. But talk of war seemed far away to His Majesty's troops stationed in Quebec, Montreal, and outposts scattered along Lake Champlain and Lake George. These cities and fortifications had been acquired by England during the French and Indian Wars, and for fifteen odd years small garrisons of British troops had wiled away their tours of duty monitoring squabbles between Native Americans and settlers and taming wild animals from the surrounding wilderness.

The most heated topic in the area that is now Vermont was not taxes or the presence of British troops in New England,

but troubles in "the Grants" with the "Yorkers." Problems arose because 18th-century maps of the American wilderness were not very accurate, and King George had mistakenly given both New York and New Hampshire the right to sell land in the area that is now Vermont. Brave New Hampshire settlers followed wilderness trails to remote spots in the forests where they cleared small plots, erected cabins, and planted gardens. Then, after



Soldier preparing to leave home. Dover Publications

months of hard work, other settlers arrived from New York claiming the same plot of land. Verbal battles soon changed to fistfights and shoot outs. A paramilitary group, called the Green Mountain Boys, was formed by Ethan Allen to protect land holdings of the Onion River Company, of which he was a prin-



principal investor, and to prevent the New Hampshire settlers from being pushed off Grants by incoming New Yorkers who also claimed the land. Before this situation could be resolved, fighting began in northern New England and

Canada between the colonists and the British. Many settlers temporarily left the Grants for southern New England, fearing being caught in the middle of war. The controversy arose again near the end of the war when Ethan Allen successfully led a movement to make Vermont the 14th member of the United States, paying New York \$30,000 for the undisputed right to land between Lake Champlain and the Connecticut River.

“In the Name of the Great Jehovah and the Continental Congress!” Capturing Fort Ticonderoga

Control of Lake Champlain and Lake George, the principal "highway" between the Grants and western New England and New York, rested with the British forts at Ticonderoga and

Crown Point. As part of the major artery connecting the St. Lawrence to the Hudson River and the Atlantic Ocean, this waterway geographically divided New England from the rest of the continent. Capturing Fort Ticonderoga would give the colonists a significant military advantage. Colonial leaders knew they must act quickly while British troops positioned in Canada were few in number. Once forces were strengthened in Quebec and Montreal, a naval campaign launched from St. Jean on Lake Champlain could split the colonies. In March of 1775, John Brown, agent for the Boston Committee of Correspondence, recommended that Fort Ticonderoga be taken from the British as soon as possible. Edward Mott of Shoreham, Vermont, reported to the Provincial Congress of the Massachusetts Committee on a plan proposed by the Assembly of Connecticut to take Fort Ticonderoga and send its cannons to Boston. Both Benedict Arnold, under the authority of the Massachusetts Committee of Safety, and the Green Mountain Boys separately determined to take the fort.

At a meeting in Castleton, Vermont, Ethan Allen was elected first in command of the Green Mountain Boys and he immediately made plans to go to Hand's Cove in Shoreham, Vermont, which is directly across the lake from Ticonderoga. It was there that Arnold caught up with them, insisting that he had been given authority to seize Fort Ticonderoga. After heated debate they decided that Allen, who had over two hundred armed men under his command, would share leadership of the mission with Arnold.

Based on information gleaned by American spy Noah Phelps, who posed as a local woodsman looking for a barber, the

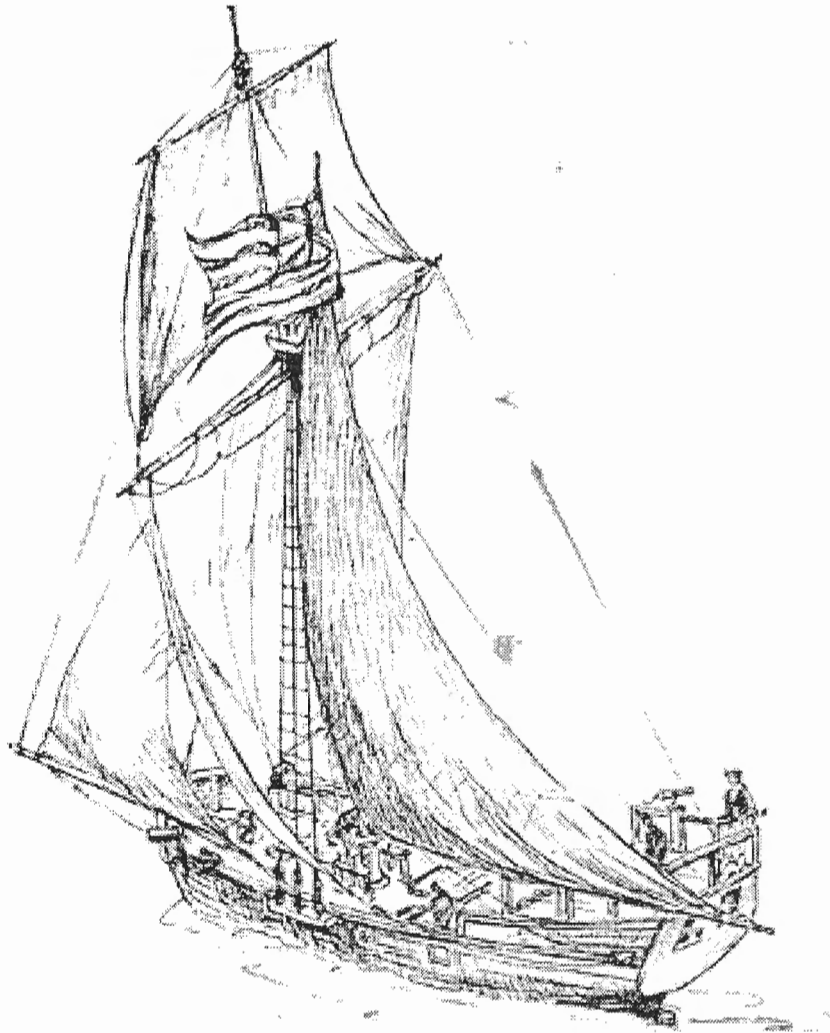


rebels knew the fort was manned by 50 Redcoats and that there was a breach in the south wall. On the morning of May 10, 1775, Allen and Arnold became legends by capturing the fort in an early morning surprise raid without firing a single shot. Startled British officers, wiping sleep from their eyes, were unprepared for the rebel attack. Not knowing who the rebels represented, British Lieutenant Jecelyn Feltham asked under whose authority the fort was being captured. Ethan Allen resolutely answered, "In the name of the great Jehovah and the Continental Congress." In one startling attack, armed colonials had successfully challenged England with the capture of one of the strongholds maintaining the British Empire in the New World.

Thank You, Major Skene! The Unwitting Benefactor of the Capture of Fort Ticonderoga

Although the mission was a resounding success, plans to capture Fort Ticonderoga did not go entirely without mishap. Recognizing that boats would be needed to ferry armed men across Lake Champlain, Samuel Herrick, who had served naval duty during the French and Indian Wars with Arnold, had been ordered to advance with a small group of men to Skenesboro (now Whitehall, New York) and seize boats from the Loyalist Skene family who managed a bustling lumber and saw mill operation along the shores of Lake Champlain. Herrick held the Skene family hostage, made off with what gold and silver he could find, and sailed their personal schooner *Katherine* to Ticonderoga. An outspoken Tory, Phillip Skene was not home at the time, but was returning from London where, ironically, he had been given the commission of Lieutenant Governor of Fort Ticonderoga and Environs and Surveyor of His Majesty's Woods.

Unfortunately, Samuel Herrick did not arrive with the *Katherine* in time to ferry Arnold, Allen, and the Green Mountain Boys across to Fort Ticonderoga. By chance, one of Philip Skene's lumber barges was temporarily docked in a nearby cove awaiting daylight and favorable winds to continue its journey. With only one man on board, the scow was easily taken, and Arnold, Allen, and eighty-three men quickly ferried across the lake before dawn to make their surprise attack on the fort.



Waylaying the Lion from the North: Building a New Fort

Spirits ran high. The initial offensive action taken on behalf of the American cause by the motley band was a resounding success and the motley band was to grow into a fledgling

army. The Continental Congress sprang into action, commissioning officers and recruiting soldiers for the Northern Army, headquartered at Albany. With the arrival of British General Guy Carleton's forces from Canada imminent, new batteries were hastily constructed around the fort and repairs made to existing fortifications. But the south-facing Fort Ticonderoga, built originally by the French to protect against British armies coming north, needed additional fortifications if it were to defend the region from a northern attack.

On July 7, 1776, Philip Schuyler, commander of the Northern Army, met with a council of officers and key leaders, including Benedict Arnold, Horatio Gates, Anthony Wayne, and John Sullivan, and made plans to fortify an area across the lake from Fort Ticonderoga commonly called "Rattlesnake Hill" (Starbuck 1991). This decision was based on recommendations by chief engineer Colonel Jeduthan Baldwin and Lieutenant Colonel John Trumbull who had scouted the area the day before and recognized the north-facing peninsula's potential.

Trumbull wrote about the Mount:

at the northern point, it ran low into the lake, offering a good landing place, from thence the land rose to an almost level plateau, elevated from fifty to seventy-five feet above the lake, and surrounded, on three sides, by a natural wall of rock, every where steep, and sometimes an absolute precipice sinking to the lake. On the fourth and eastern side of the position ran a morass and deep creek at the foot of the rock, which strengthened the

front, leaving room only, by an easy descent, for a road to the east, and to the landing from the southern end of the lake (John Trumbull).



Besides its elevated view of Lake Champlain northward, the Mount offered strategic locations for cannons to aid in protecting Fort Ticonderoga's northern walls. Also, it was accessible to troops and supplies traveling by land from southern New England.

Notwithstanding its strategic attributes for military purposes, the Mount was an imposing piece of land for habitation. Icy winds howled across the lake during winter. Undulating, stony ground made pitching tents and setting up orderly encampments difficult and constructing earthenworks in the thin topsoil that covered the rocky ledges was a backbreaking challenge. Colonel Anthony Wayne from Pennsylvania recorded this impression of the environs:

{It} appears to be the last part of the world that God made & I have some ground to believe it was finished in the dark--that it was never Intended that man shou'd live in it is clear--for the people who attempted to make any stay--have for the most part perished by pestilence or the sword (Anthony Wayne).

Soon Wayne's Pennsylvanian regiments were joined by other regiments from Connecticut, Massachusetts, New Hampshire, New York, and New Jersey. With additional manpower the Mount was quickly transformed from wilderness to military city. A road was cleared on the point, a well dug, encampments raised, and parade grounds leveled. With axes and shovels in short supply, men worked in shifts. By July 23, 1776, brigades began crossing from Fort Ticonderoga to take up permanent residence on the Mount (Wickman 1990). Encampments were laid out in an orderly British military manner, with streets between companies and parade grounds to the front designated by colorful regimental flags. Some regiments had enough tents for all their men, others did not. Crude huts and framed houses were fashioned from the raw materials at hand.

After only one year of hard work several hundred smaller buildings, such as huts, houses, barracks, workshops, and outposts dotted the three-hundred-acre Mount. Major accomplishments included regimental hospitals; a crane and wharf; a picketed fort; and numerous batteries, redoubts, and other earthen fortifications. The Mount had successfully been transformed from a "howling wilderness" to a formidable military fortification.

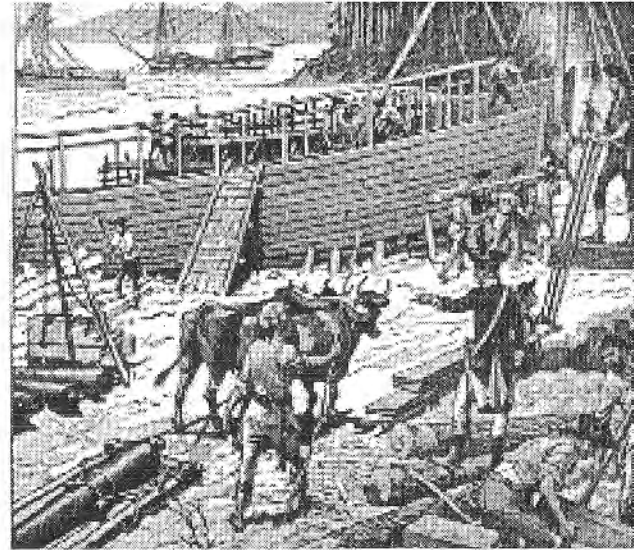
Benedict Arnold Sails the Champlain "Sea"

Benedict Arnold wasted no time in requesting sailors to man a fleet of vessels he was building in Skenesboro (Whitehall, NY). The colonies did not yet have a navy but they did have sailors trained on Atlantic whaling boats and privateers. Since Boston's harbors were blockaded by the British and the Newfoundland fishing banks were declared off-limits, idle seamen enlisted in the colonial ranks. Some of these men, along with common rank-and-file soldiers manned the growing fleet. From the three brigades encamped on the east shore of Lake Champlain, 18 sergeants, 10 corporals, 10 drummers, and 186 privates were transferred to Arnold's fleet (Starbuck 1991). Once the vessels were constructed at Skenesboro, they were rowed downstream to Mount Independence for masting and armament.

On October 13, 1776, Benedict Arnold and Sir Guy Carleton's armadas met on northern Lake Champlain near Valcour Island. Arnold's loss at the Battle of Valcour Island ended his naval career on Lake Champlain but the significance of the inland navy is believed, by some historians, to be an important factor in winning the war for independence. In The Birth of the United States Navy, historian Neil Stout states:

It was not, after all, the Battle of Valcour Island itself that changed history; the important thing is that it didn't occur until October of 1776. The battle, whose outcome could never have been in doubt, might simply have been conceded to the British without changing history. But by mid-October, it was too late for Sir Guy

Carleton to start his army down the Champlain-Hudson line. It was the building, not the fighting, of America's Champlain navy that may well have changed history. (Stout 1982).



Arnold building the fleet. Dover Publications

Buying Precious Time

After doing battle with Arnold's fleet, Sir Guy Carleton continued south to Three Mile Point where he viewed the combined battlements of Fort Ticonderoga and Mount Independence. The sight of the complex system of fortifications gave him pause as he considered the time it would take to lay siege to the area. With 13,000 American soldiers manning both sides of the lake and innumerable cannons poised for crossfire, Carleton wisely returned to quarters in Canada to wait out the

winter. Meanwhile the Northern Army continued fortifying Mount Independence throughout the severe winter of 1776.

The Bitter Winter

History books tell of the hardships George Washington and his men endured during the harsh winter of 1776 at Valley Forge. Few people know about the conditions endured by the brave soldiers living on Mount Independence during the winters of 1776 and 1777. Besides lack of food, inadequate clothing, and diseases, the men at the Mount faced the bitter temperatures of a Vermont winter. Colonel Wood wrote in December: "I had three men froze to Death last night, in there Tents. Colo Wayne four" (Wickman 1990). Nevertheless, they managed to build a blockhouse, an abatis around the picketed fort, and the great bridge across Lake Champlain. In front of the bridge was laid a floating log boom and chain, intended to prevent ships from ramming the bridge and passing into the southern waters of the lake.

Evacuation

With spring came the threat of attack from the British forces in Canada, who were now under the leadership of General John Burgoyne. American Lieutenant Thomas Blake wrote in his diary entry of June 30, 1777,

the enemy came up with its shipping to the Three Mile point and landed troops on both sides of the lake and drew their shipping in a line across the lake; which was

three ships of 24 guns each, two sloops, about 40 gun boats, and about 100 bateaux.

General Arthur St. Clair anticipated battle with the armada and land troops, but he did not think the British capable of dragging cannons to the top of Sugar Hill (Mount Defiance) where the British could watch every move on both sides of the lake and, more important, fire upon Fort Ticonderoga.



Under the cover of darkness on the night of July 5, 1777, General St. Clair gave orders to evacuate Fort Ticonderoga and Mount Independence. He was later tried for abandoning the

post without proper cause but found not guilty. The evacuation enabled his men to regroup and fight at the Battle of Saratoga, which most historians consider to be the turning of the war in favor of the American army.

Resources

Bird, Harrison, March to Saratoga: General Burgoyne and the Canadian Campaign, 1777. Oxford University Press, New York, 1963. Navies in the Mountains. Oxford University Press, New York, 1962.

Morton, Doris Begor Birth of the United States Navy. Whitehall Times, Whitehall, NY, 1982.

Starbuck, David, Dennis Howe, William Murphy, and Gordon De Angelo, Mount Independence: 1989 Archaeological Completion Report. Division for Historic Preservation, Montpelier, VT, 1991.

Versteeg, Jennie, ed., Lake Champlain Reflections on Our Past. University of Vermont Press, Burlington, VT, 1987.

Wickman, Donald, "Built with Spirit, Deserted in Darkness: The American Occupation of Mount Independence 1776-1777." Master's thesis, University of Vermont, Burlington, VT, 1990.

Objective:

To use problem solving and creative thinking to design uniforms for regimental soldiers.

Target Ages:

Grades 3-6

Class Orientation:

Individuals, pairs or whole class



Time Needed:

Approximately 45 minutes per activity

Materials:

Art supplies and drawing materials

Optional:

- Copeland, Peter, Uniforms of the American Revolution. NY: Dover, 1974 (In Museum Kit) 
- Zlatich, Marko, General Washington's Army 1: 1775-1778. Osprey Military, 1994  (In Museum Kit)

Does Linsey-Woolsey* Come with Washing Instructions?

Uniforms of the Revolutionary War Era



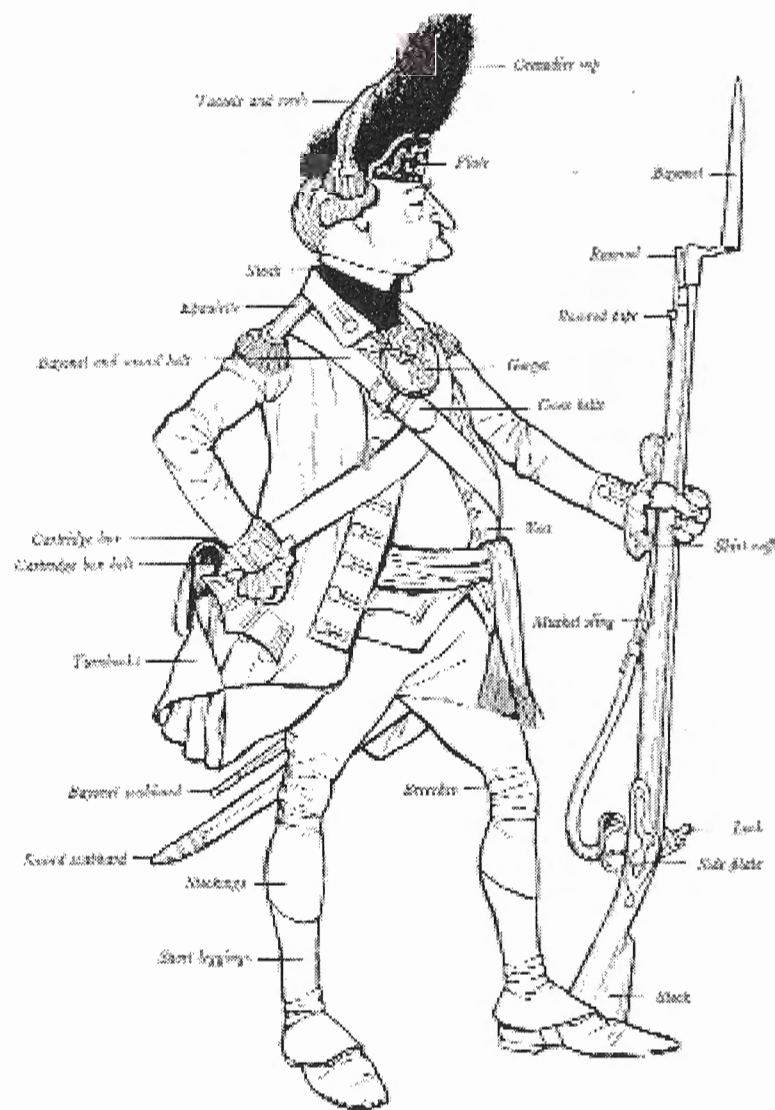
Introduction:

Each regiment had its own uniform. Wealthy British officers often dressed up their uniforms with personal touches. Looking at the number of different uniforms, it's amazing that soldiers didn't accidentally shoot their own ranks!

Procuring uniforms for the American Army was a costly and lengthy procedure. When the Revolution started, cloth-making industries in the colonies were limited and British naval restrictions for colonial harbors made clothing, blankets, wool and cotton goods scarce. Patriotic women from Atlanta to Boston joined together in sewing circles and produced regimental coats, breeches, and other articles of apparel, along with the customary bandages. Uniforms took many hours to design, cut, sew, and ship, some from as far away as France, to needy soldiers in the ranks.

In November 1775, Congress adopted brown as the first official color of the Continental Army. Even in 1777, clothing and arming the troops was the responsibility of each state (Mollo 56). It was many months before the American Army was clothed in official uniforms, distinguishable by regiment and rank.

* a coarse cloth made of linen and wool or cotton and wool.



Parts of Revolutionary War Uniform-British Soldier. The Continental Army used the British uniform as a model for many of the uniforms. From Peter Copeland, Uniforms of the American Revolution.

January 21, 1776 the Committee of Safety issued orders to equip the New Hampshire Rangers. Materials to be bought included: moose skins for moccasins, shoes, snowshoes, blankets, coarse cloth for Indian leggings, shirting and coats. Raccoon skincaps were part of the regimental uniform of the Green Mountain Boys in 1775, along with buckskin cloth waistcoats and woolen caps (Zlatich 1994). An Albany issue of clothing for Seth Warner's regiments included, "186 coats, 205 waistcoats, 1,223 stockings, 61 hats or caps, 101 hunting shirts, 110 pairs of trousers, and 150 blankets" (Zlatick 1994).

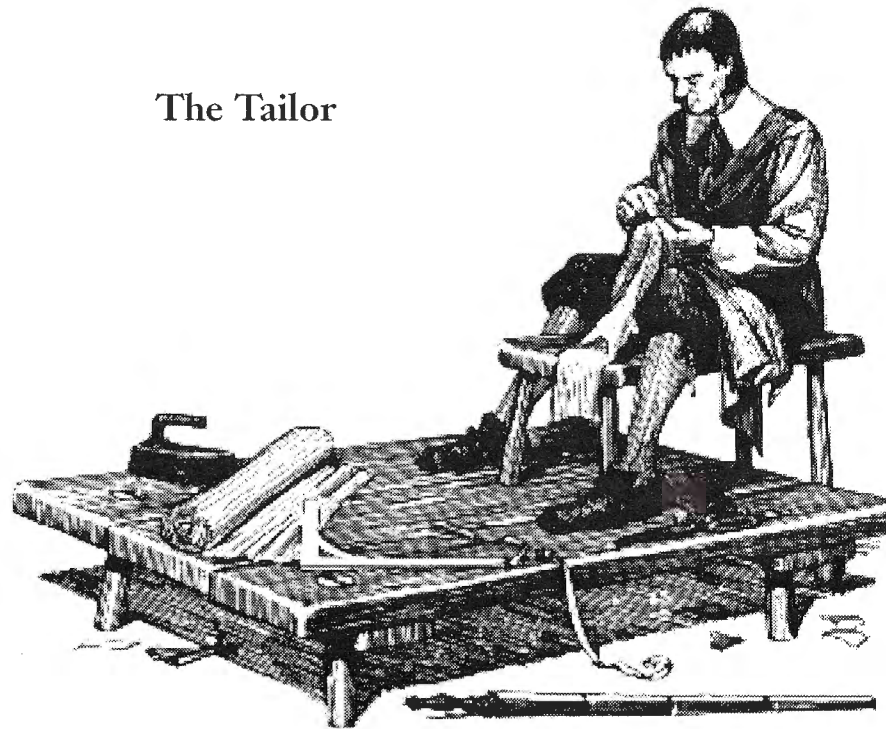
Activity:

- Uniforms of any kind are expensive to make, then and now. Pretend you are a uniform designer hired by the Continental Congress to design and produce uniforms for the troops at Mount Independence. Your budget is very limited. Write down your recommendations for making a uniform that is durable, suitable for all kinds of weather, and stylish in the manner of the times. Cut out "frills" that you consider unnecessary and wasteful. Remember that uniforms designs are significant on many levels, including psychological impact. Uniforms create a sense of unity and belonging to an identifiable group, conform to rules regulating appearance, conform to a standard, and are designed to intimidate the onlooker by making the wearer appear larger, more muscular, striking, alert, and aggressive. Uniforms often incorporate the colors red, black or dark blue. Make a colored drawing of your uniform design. Label the parts.

Notes:

- Make a journal entry as though you are a new recruit at Mount Independence. Describe your uniform and how you feel wearing it. Look at some pictures of battle scenes in encyclopedias or history books. Describe how your regiment would look in battle.
- Divide the students into groups. Have each group make paper hats that are similar except for a few elements that mark the rank of the wearer. The higher the rank, the more impressive the hat. See if the other groups can line up your group according to rank by looking at their hats.

The Tailor



Fifers and Drummers

Field Music of the Revolutionary War

Objective:

To learn about musical patterns and beats.

Target Age:

K-Grade 8

Class Orientation:

Whole Class


Time Needed:

45 minutes to list classroom activities and design drum signals to announce each activity. 5 minutes will be needed each morning to select and outfit the "Orderly Drummer" of the day.

Materials:

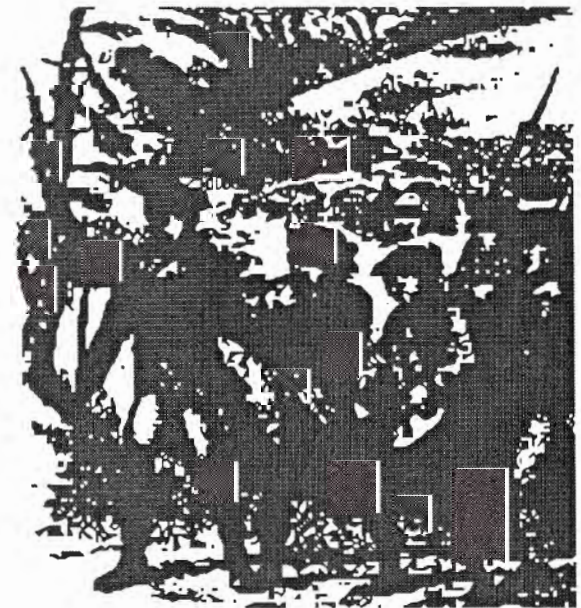
- A hand-made drum or other surface appropriate for drumming.
- Classroom "colours" - a classroom "regimental" flag, on a base that can be placed on a student's desk.

Optional:

Tapes in Museum Kit 
"A World Turned Upside Down"
"Fife and Drums"

Introduction:


Each company in the Continental Army was assigned one fifer and one drummer commonly referred to as "field music." They were responsible for regulating life in camp with calls referred to as "camp duties" and for relaying important commands on the battlefield. Excerpts from the Revolutionary War memoirs of Samuel Devees stated one drummer was also chosen to be the "Orderly Drummer" of the day. This drummer had his drum constantly lying on the parade ground for easy use. Its place was generally where the colours were planted, or in other words, where the American standard was erected on a pole similar to what is now known and called a Liberty Pole. When the Sergeant of the party called out, "Orderly Drummer", this drummer repaired to the Sergeant immediately, who ordered him as follows: "Orderly Drummer beat up the fatigue's march." The Orderly Drummer of the day then beat out the appropriate command (Reed nd:11).




References:

Reed, Nigel. "Drum Signals. Then and Now." Musician's Call Newsletter, no date.

Sawyer, Bill. "Field Music of the Continental Army." Musician's Call Newsletter, July 1995.

von Steuben, Baron Frederick William, Baron von Steuben's Revolutionary War Drill Manual: A Facsimile Reprint of the 1794. Edition. New York, NY: Dover Publications, Inc., 1985. (In Museum Kit.) 

Wilbur, C. Keith. The Revolutionary Soldier, 1775-1783. Old Saybrook, CT: The Globe Pequot Press, 1969. (In Museum Kit) 

Contrary to popular image, most fifers and drummers in the Continental Army were older than field musicians in the regional (local and state) militia. They were paid the same wages as a corporal, seven and one third dollars a month, and expected to purchase their own instruments and keep them in repair (Sawyer 1995). Fifes were usually turned wooden tubes with a blow hole and six finger holes. One fife, found at Saratoga, is made of iron, presumably a cut off gun barrel. Drums, also wooden, were strung with ropes and had snares of heavy gut across the bottom head. Both the drum and sticks were heavy for greater resonance to be heard above the battle sounds (Wilbur 1969). Most regiments required field music to practice at least two-to-four-hours per day under the direction of the fife major and drum major, senior non-commissioned officers. They were required to practice at a specific time and location to avoid confusing the troops, who might otherwise mistake a practice signal for an actual order.

Whenever possible, fifers and drummers wore uniforms distinctive from the regimental uniform, often reverse colors. This increased their visibility, a significant attribute for signalmen. In 1777, drummers and fifers of the Northern Department were issued regimentals of green faced with blue.

Besides camp duties and battlefield commands, the drummers were also charged to administer punishment in the form of flogging. The "cat-bag" or "bloody bag" containing the "cat of nine tails" whip was normally carried by the drum major, although any drummer or group of drummers could be asked to carry out the unwelcomed task of applying the whip.

Another form of punishment officiated by the field music was "drumming out". Offenders and undesirable men or women were "drummed out" of camp by being paraded around the assembled lines of troops several times to the tune of "The Rogues March" and given the final humiliation of an exiting kick to the backside by the youngest drummer.

Field music was also played for more joyful affairs, such as supplying quick march tunes for a grand review of the troops or playing for other festive occasions.

A typical day for field music at Mount Independence might run as follows:

- **Reveille** - Wake-up call for the troops to rise and begin the day.
- **Troop** - Troops fall in for morning roll call and inspection. Usually one hour after reveille. At roll call men were assigned work detail such as firewood gathering, foraging food, building defenses, etc. When the fifers and drummers played "Beat the Prisoners March", also known as "Fatigue March", those chosen for duties were to fall in. Drum signals throughout the day called the men to receive water rations, wood rations and provisions (Reed). The call for provisions was usually the tune appropriately titled "Roast Beef". When required, officers such as first sergeants, adjutant, etc. could be summoned to the commanding officer's tent by a relayed drum signal assigned to each commissioned officer according to his rank.
- **Retreat** - played at sunset to announce evening roll call.
- **Tattoo or taptoo** - final daily signal ordering men to retire to their tents.
- **Long Roll** - immediate fall in, could be given at any time of day when an urgent situation or announcement required the immediate attention of the troops.
- **Parley** - Used in battle to signal a conference between sides, but also used in camp to announce Sunday chapel. The drums were then stacked to form a pulpit.

Activities:

- Using hand-made drums or any surface suitable for drumming, assign a daily drummer who will be in charge of relaying "camp duties" to the class at appropriate times. This student will be called the "Orderly Drummer" of the day and will display a flag showing the regimental (classroom) colors at his/her desk.
- Camp duties can include: roll-call, flag salute, announcements, lunch, recess, work stations, etc. The class will need to formulate each signal and practice them until they are recognizable. Some possible combinations are: short drum roll followed by two taps on the drum to announce lunch, a sustained drum roll, perhaps used for morning roll call, that continues until everyone is seated and silent, four loud taps on the drum calling everyone to clear their desktop.
- Fife-like music can be added using recorders and tapes from the Mount Independence Museum Education Kit.
- Play songs provided in "World Turned Upside Down" Activity in Mount as a Little City Chapter

Objective:

To experience the rigors (and fun) of precision marching and coordinated efforts

Target Ages:

Grades 4-8

Class Orientation:

Whole Class

Time Needed:

Several 10-minute sessions are more productive than one lengthy session.

Materials:

Military marching music such as "Military Musick of the American Revolution" by the Brigade of the American Revolution.

(In Museum Kit) 

An open area will be needed for marching.

Cassette Recorder

March On

Learning Military Drills of the Continental Army

Introduction:

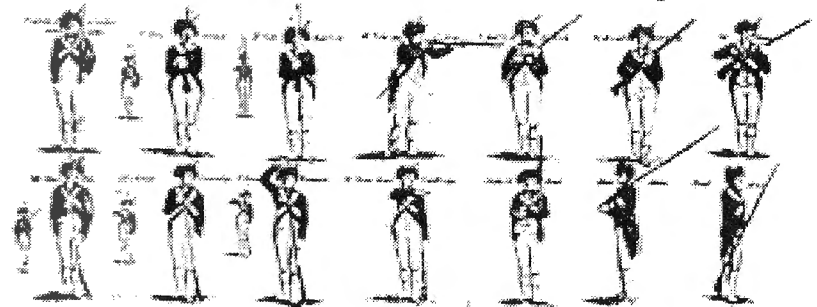
Many historical fiction books and movies begin with a hodgepodge cluster of men and boys in an assortment of Revolutionary War era dress, musket in hand, haphazardly drilling on the village green. While not haphazard, most colonial militia exercises were a far cry from the precise military drills displayed by British troops stationed in Boston or Concord.

Even the Continental Army, admittedly better drilled than most state militia, lacked the precision and crisp response to orders customary in European armies. Exact conformity to marching orders was not just pomp and ceremony, the viability of the regiments and the very life of individual soldiers depended on rapid,

unquestioning compliance to orders given during the heat of a battle. Hesitation due to fear, inexperience, or a poorly-executed marching maneuver, could cost an army precious time, resulting in loss of tactical positioning and possibly lives. Soldiers needed to know the drills so thoroughly that they became second nature, requiring little thought.

Military drills during the early years of the American Revolution were similar to British drills. In 1777, a Prussian officer named Baron Frederick von Steuben was brought to the atten-

TAKE NOTICE,



tion of Benjamin Franklin while he was in Paris. Franklin, by letter, recommended von Steuben to General George Washington who immediately asked him to join the American forces at Valley Forge. Von Steuben generously offered to volunteer his services training soldiers, expecting no fee except his expenses until the war was won. While at Valley Forge he wrote the first American army drill book which became the official "Blue Book" Military Guide until 1812.

We know from journals that considerable time was devoted to marching and drills at Mount Independence. The flat, smooth parade ground within the star fort can still be distinguished by visitors to the site. It is not hard to imagine the troops being proudly reviewed before ranking officers and honored guests on the hard-packed square of earth surrounded by barracks.

Activity:

- Line students up in rows evenly spaced and facing the same direction. Following the directions given below, teach students to march with precise motions in time to the music. The proper carriage of firearms is given in parentheses in the instructions as an option for groups wishing to carry mock guns. When students are empty handed both arms should hang at the sides.
- *Every soldier must give the greatest attention to the words of command, remaining perfectly silent and steady, not making the least motion with head, body, feet, or hands, but such as shall be ordered. The heels at this time are to be in line, not more than 4 inches asunder; the toes moderately turned out, shoulders square to the front, and kept back; the body upright, the breast pressed forwards, the belly drawn in, but without bending; the right hand hanging down on the right side, the back of the hand to the front; (the firelock carried on the left shoulder; the barrel outwards the butt in the left hand, two fingers being under it, the middle finger just upon the turn or swell of the butt, and the fore finger and thumb above it; the piece almost upright, the butt flat against the outside of the hip-bone, the lock a little turned up, the guard being just below the left breast, and the piece pressed to the body;) the head held up and turned a little to the right, except the right hand man who looks full to the major or exercising officer. Great care must be taken not to begin a motion, till the word of command or signal on the drum be ended; and then to perform it as quick, and with as much life as possible, and to be very exact in counting a second of time, or one, two, slowly, between each motion. and the major or exercising officer is to take the space of two seconds, between the end of each motion and his giving the word of command or signal for another, and this the men are likewise to observe, when they exercise by one word of command only (Shuckburg nd).*

- After students have learned to stand properly at attention, begin the drill below:

Face to the Right - (a 90 degree turn)

- Bring your right heel about four inches behind your left heel.
- Make a square with your two feet
- Turn on your heels a quarter of a turn to the right, without stirring your heels from their places.

To the Right About - (a 180 degree turn)

- The same as above.
- Then turn at once on your heels to the right without stirring your heels from their places so that you will then face directly opposite to where you were and your right foot will be foremost.
- Bring your right foot back even with your left, setting it down firmly.

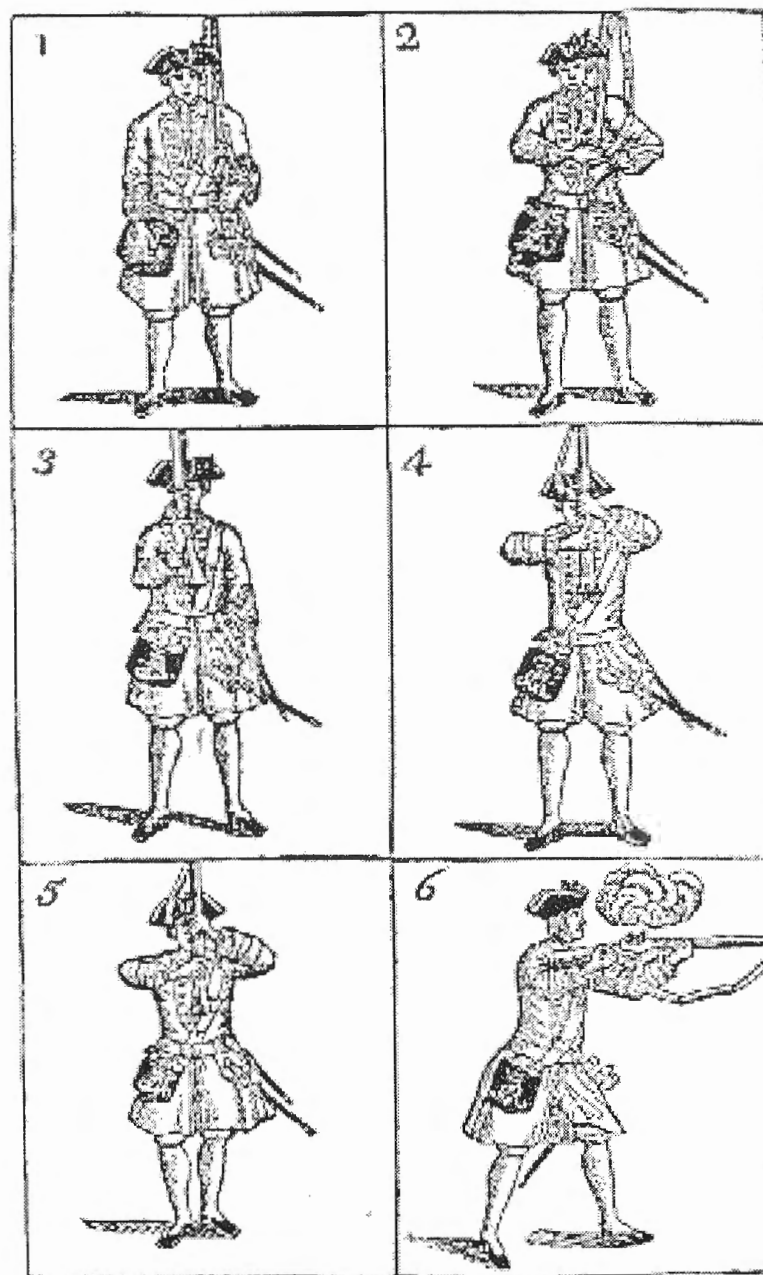
Face to the Left - (a 90 degree turn)

- Bring your right heel close up to the ball of your left foot setting it square.
- Turn on your heels a quarter of a turn to the left without stirring your heels from their places.

To the Left About - (a 180 degree turn)

- The same as above
- Turn at once on your heels to the left quite about, without stirring your heels from their places; so that you will then face directly opposite to where you did, and your left foot will be foremost.
- Bring your right foot up even with the left, setting it down firmly. (Shuckburg nd)

The MANUAL EXERCISE of the FOOT GUARDS.



1 Take Care. 2 Join your Right-Hand to your Firclock. 3 Face your Firclock.

Timing:

Common Step: 60 beats per minute (an army can travel all day at this speed)

Quick Step: 75 beats per minute

Double Step: 120 beats per minute (this is about the speed of a modern marching band)

Spacing:

Open order:: the ranks are to be six paces asunder*

Close order: one pace asunder

Marching: two paces asunder

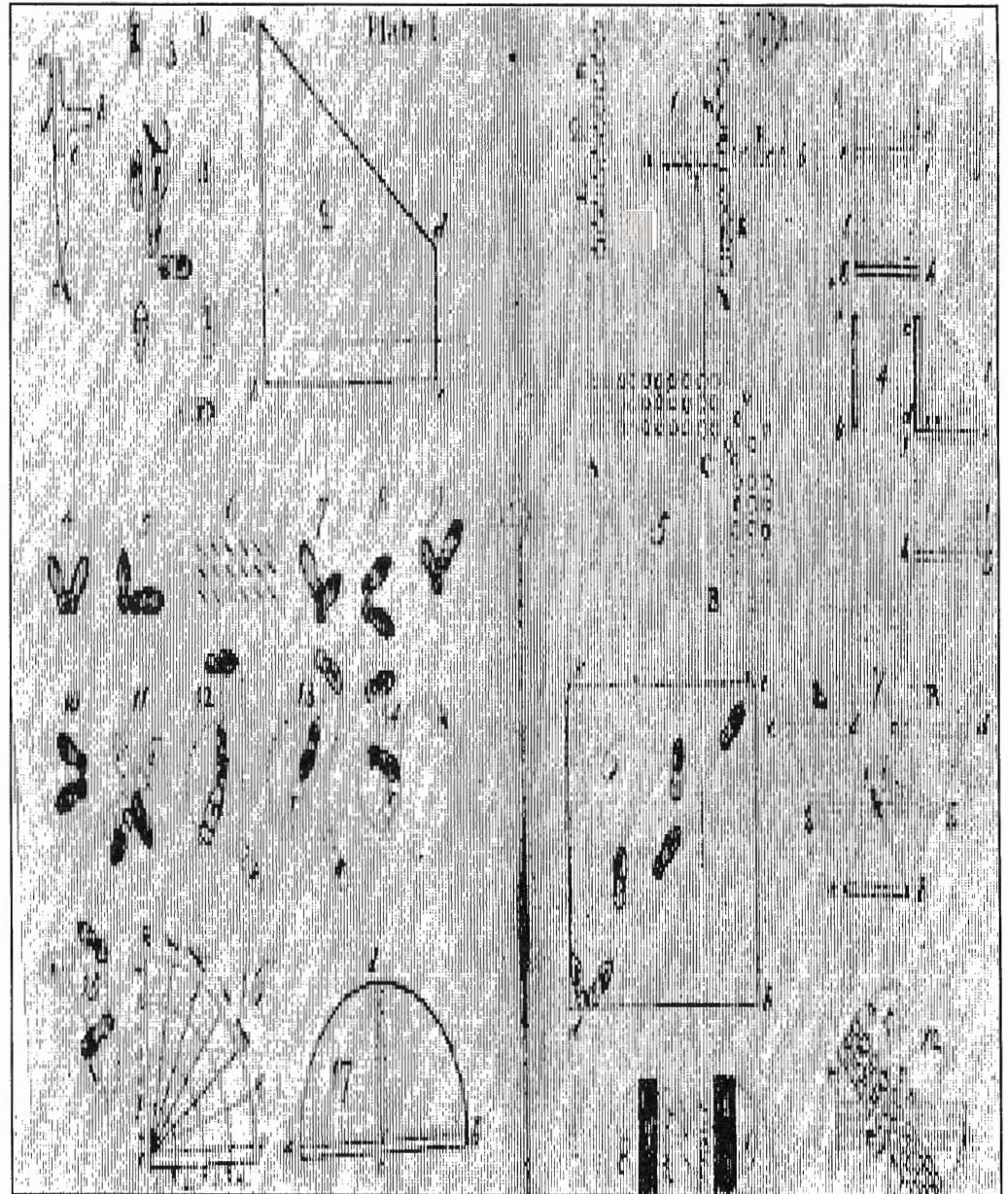
Step size:

Short step: one and one half feet in length, marching in common step time.

Long or common step: two feet in length, marching in common step time.

Double step: two feet in length, marching in double steptime.

* not close, apart



Drawing from An Easy Plan of Discipline for a Militia by Timothy Pickering.

Objective:

To interpret charts and communicate data in multiple ways.

Target Age:

Grades 4-8, modifications for older and younger students

Class Orientation:

Individuals or pairs

Time Needed:

Approximately 45 minutes

Materials:

- Graph paper.
- Computer graphing program (optional)
- * Rulers
- * Compasses.
- Colored pencils, crayons or markers, small colored blocks or other representational markers.
- Col. Wayne's 11/29/76 list. (att)
- Charts of regiments September and October 1776 (att)
- Diagrams showing the layout of a regiment.

Where Do I Put My Bed Roll?

Military Encampment at Mount Independence

Introduction:

Tents of the Revolutionary War varied greatly in size and design, though almost all were wall tents and either oval or rectangular. According to a contemporary British description:

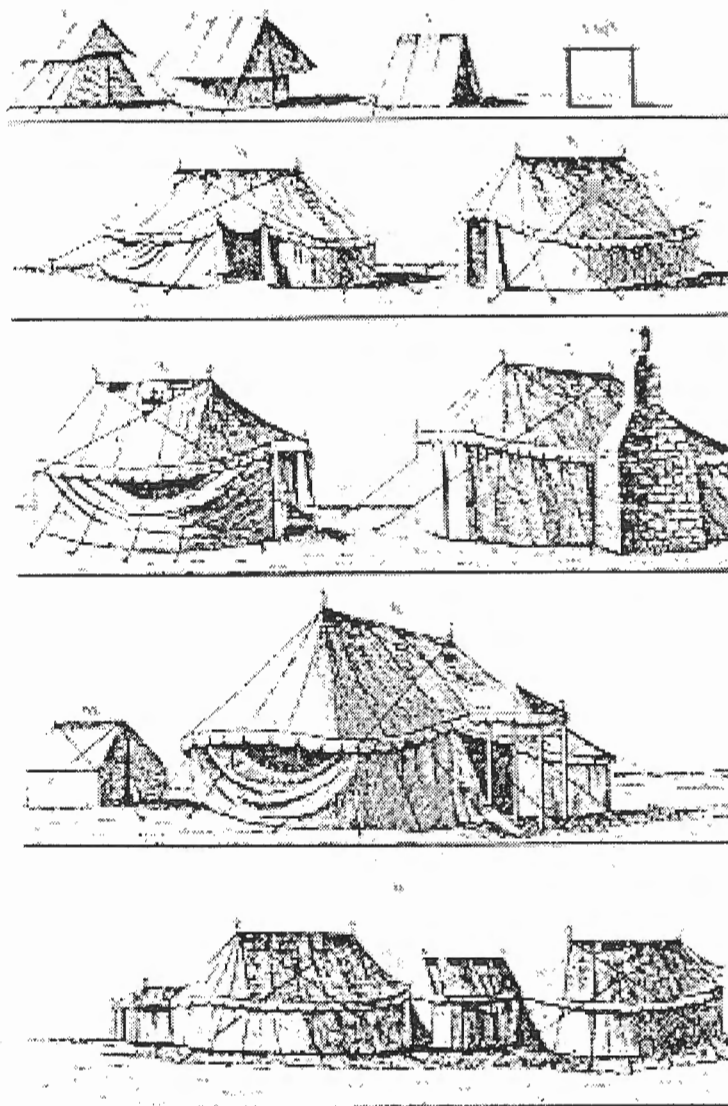
The sizes of the officers tents are not fixed, some regiments have them of one size, and some of another: a captain's tent and marquee is generally 10 1/2 feet broad, 14 feet deep and 8 high: the subalterns are a foot less; the major's and lieutenant-colonel's a foot larger and the colonel's 2 feet larger. The subalterns of foot lie two in a tent, and those of horse but one. The Tents of private men are 6 1/2 feet square and 5 feet high, and hold 5 soldiers each."

(Peterson 1968: 153)

Activities:

Using the charts, students will represent data in multiple ways. Students can choose the method of representation such as bar graph, pie chart, pictograph, drawing, sentences, equations, ratios, etc. Sample problems are listed below.

- Using the chart of September 1776, show the proportion of officers to enlisted men (rank and file) by brigade and by colony. Student will choose the method of representation.
- Compare the chart from September 1776 to the chart of October 1776. The student will communicate at least five differences between the two charts using complete sentences and one other method of representation (graph, chart, drawing, etc.). What significance, if any, can be inferred from these differences, i.e., a greater proportion of soldiers are reported sick in October than in September impacting the number of fighting men available.



Tents of the American Revolution

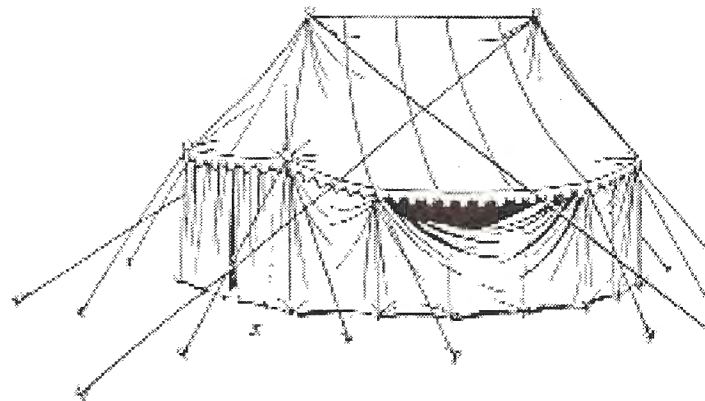
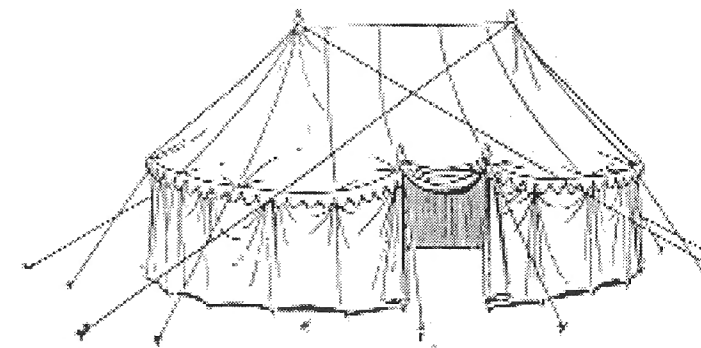
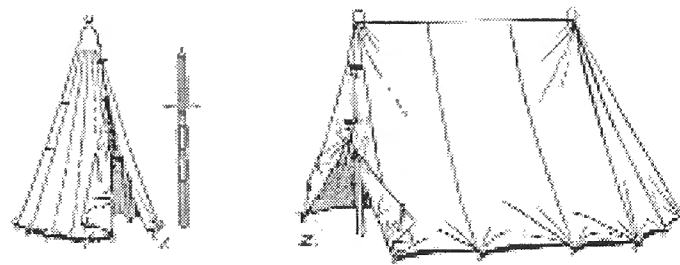
- Using the chart of September 1776, the description "Tents of the Revolutionary War," and the two diagrams of layouts of a regiment, make a drawing showing the layout of the New Hampshire Rangers. Show the necessary number of tents and location of tents for each rank of commission (staff officer, commissioned officer, rank and file, etc.) The drawing can be computer generated or hand drawn and should include a legend. Artistically inclined students can draw the encampment as a soldier might have sketched it showing the tents and accompanying activities.
- Transfer the information from the Col. Wayne November 29, 1776 list to a chart similar to that of September 1776.
- Younger students may lay out an encampment similar to the regimental diagram with blocks. Use different colored blocks to represent the tents of different ranks of soldiers. Make a legend explaining what the different colored blocks mean.
- Make a class encampment by rank (general, officers, rank and file, etc.) using the diagram of regimental layout and the description of soldiers per tent.
- Older students may express information from the September 1776 Northern Army table mathematically as ratios or proportions.

Suggested Reading/Resources:

Peterson, Harold., The Book of the Continental Soldier: Uniforms, Weapons, and Equipment with Which He Lived and Fought. Harrisburg, PA: Stackpole Press, 1968.

While at the Mount:

Use the trail maps to locate sites where tents would have been set up.
Attend a living-history program at the Mount or another location



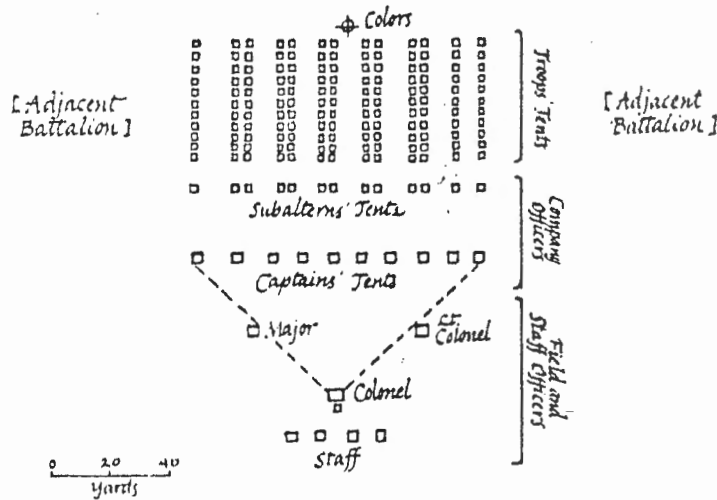
Tents of the American Revolution

To Latrines, 50 yds. ↑

□ □ Quarter-guard
□ □ Compound

Parade Ground

----- Parade Front -----



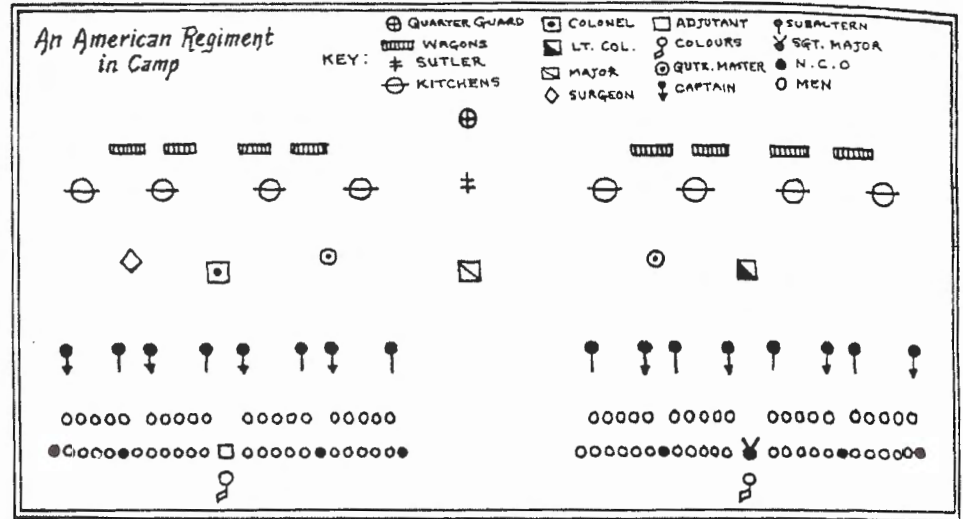
(Officers Horses)

----- Troop Kitchens -----

----- Sutlers, Butchers -----

To Rear-line Latrines ↓
50 yds.

Layout of Regular Battalion



Layout of Regiments

RETURN OF THE GARRISON AT TICONDEROGA AND MOUNT
INDEPENDENCE, UNDER COMMAND OF COL. WAYNE,
NOVEMBER 29, 1776

Col. Asa Whitcomb's Corps

(6th Mass. Reg't)

21 Commissioned Officers.
4 Staff.
24 Non-commissioned.
358 Rank and File.
287 Wanting to Complete.

Col. Elias Dayton's Corps

(3rd N. J. Reg't)

27 Commissioned Officers.
3 Staff.
45 Non-commissioned.
517 Rank and File.
123 Wanting to Complete.

Col. Joseph Wood's Corps

(2nd Penn. Batt'n)

16 Commissioned Officers.
3 Staff.
24 Non-commissioned.
383 Rank and File.
258 Wanting to Complete.

Total, Commissioned

3 Colonels.
2 Lieutenant-Colonels.

4 Majors.

28 Captains.

24 First Lieutenants.

27 Second Lieutenants.

31 Ensigns.

Staff

5 Adjutants.

5 Quarter-Masters.

5 Surgeons.

4 Mates.

Non-Commissioned

112 Sergeants.

54 Drums and Fifes.

Rank and File

1109 Fit for Duty.

768 Sick, present.

262 Sick, absent.

44 On Furlough.

268 On Command.

2451 Total.

Wanting to Complete

9 Sergeants.

17 Drums and Fifes.

1444 Privates.

Col. Chas. Burrell's Corps

(14th Conn. Reg't)

19 Commissioned Officers.
1 Staff.
24 Non-commissioned.
218 Rank and File.
427 Wanting to Complete.

Col. Anthony Wayne's Corps

(4th Penn. Batt'n)

21 Commissioned Officers.
4 Staff.
30 Non-commissioned.
510 Rank and File.
198 Wanting to Complete.

Col. William Irvine's Corps

(6th Penn. Batt'n)

15 Commissioned Officers.
4 Staff.
19 Non-commissioned.
465 Rank and File.
177 Wanting to Complete.

SEPTEMBER 1776 (continued)		PRESENT FIT FOR DUTY & ON DUTY				RANK & FILE SICK, ON FURLOUGH, ETC.				GRAND TOTAL	ALTERATIONS				LOCATION	
UNIT	COMMANDING OFFICER	COMMISSIONED OFFICERS	NONCOMMISSIONED OFFICERS	STAFF OFFICERS	RANK & FILE	TOTAL	SICK PRESENT	SICK ABSENT	ON COMMAND & EXTRA SERVICE		ON FURLOUGH	DEATHS	DESERTED	TAKEN PRISONER		DISCHARGED
NORTHERN DEPARTMENT UNDER MAJOR GENERAL HORATIO GATES																
24th cont'l. (Mass.)	John Grenton	17	28	3	91	139	81	14	127							Ticonderoga, N. Y.
25th cont'l. (Mass.)	(late) William Bond	15	24	3	40	82	194	29	77							Ticonderoga, N. Y.
Cont'l. regt. (Conn.)	Charles Burrall	15	27	3	75	120	83	38	125	25						Ticonderoga, N. Y.
Mass. militia	Elisha Porter	17	27	3	41	88	160	2	95	18						Ticonderoga, N. Y.
2nd cont'l. (N. H.)	(late) James Reed	22	39	4	88	153	176	12	43	9						Ticonderoga, N. Y.
15th cont'l. (Mass.)	John Paterson	23	26	3	159	211	81	57	41	33						Ticonderoga, N. Y.
N. H. rangers	(late) Timothy Bedel	16	31	4	123	174	102	22	59	97						Ticonderoga, N. Y.
Wyman's N. H.	Isaac Wyman	27	44	3	164	238	268	2	159							Ticonderoga, N. Y.
5th cont'l. (N. H.)	John Stark	30	34	3	153	220	124	28	28	1						Ticonderoga, N. Y.
8th cont'l. (N. H.)	Enoch Poor	28	39	4	117	188	205	39	87	2						Ticonderoga, N. Y.
2nd N. J.	William Maxwell	29	38	3	180	250	122	63	19							Ticonderoga, N. Y.
Wingate's N. H.	Joshua Wingate	31	38	4	159	232	246	6	198							Ticonderoga, N. Y.
2nd Pa. bn.	Joseph Wood	26	37	3	228	294	70	86	30							Ticonderoga, N. Y.
1st Pa. bn.	John Philip De Haas	33	28	4	220	285	39	147	26							Ticonderoga, N. Y.
Independent rifle co. (Pa.)	Capt. John Nelson	4	3		51	58	4	2								Ticonderoga, N. Y.
1st N. J.	William Winds	33	43	3	217	296	72	53	38							Ticonderoga, N. Y.
4th Pa. bn.	Anthony Wayne	30	46	5	342	423	123	17	21							Ticonderoga, N. Y.
6th cont'l. (Mass.)	Asa Whitcomb	22	28	4	187	241	110	51	96	2						Ticonderoga, N. Y.
Mass. militia	Jonathan Reed	31	48	4	219	302	271	9	120							Ticonderoga, N. Y.
Mass. militia	Ephraim Wheelock	34	18	4	147	203	234	4	244	2						Ticonderoga, N. Y.
Mass. militia	Edward Wigglesworth	28	25	5	160	218	145	10	156							Ticonderoga, N. Y.
Mass. militia	Benjamin Ruggles Woodbridge	33	46	4	285	368	192	9	84	1						Ticonderoga, N. Y.
Mass. regt. C	Samuel Brewer	41	58	5	386	490	137	16	116							Ticonderoga, N. Y.
Mass. regt. C	Aaron Willard	30	41	1	269	341	78	5	116							Ticonderoga, N. Y.
Conn. state	Heman Swift	11	25	3	130	169	201	111	66	2						Ticonderoga, N. Y.
Pt. Conn. state	Samuel Mott	9	16	2	111	138	65	19	38							Ticonderoga, N. Y.
6th Pa.	William Irvine	19	32	4	194	249	165	20	91	16						G
5th N. Y.	Goose Van Schaick	14	27	2	156	199	50	3	57	1						G
N. Y. levies	Cornelius Van Dyck	9	14	2	75	100	30	21	61							G
4th N. Y.	Cornelius D. Wynkoop	5	5	1	20	31	87	1	26							G
Pt. Conn. state	Samuel Mott	9	7	2	73	91	103	3	26	1						G
Artificers		6	7		57	70	28	3	15							Ticonderoga, N. Y.
TOTAL OF INFANTRY		697	949	98	4917	6661	4046	902	2488	210						14307
ARTILLERY																
Cont'l. artillery co.	Maj. Stephen Badlam	8	39	3	42	92	26	14	10							Ticonderoga, N. Y.
TOTAL OF NORTHERN DEPARTMENT		705	988	101	4959	6753	4072	916	2498	210						14419

38

BRIGADE	UNIT	COMMANDING OFFICER	PRESENT FIT FOR DUTY & ON DUTY				RANK & FILE SICK, ON FURLOUGH, ETC.				GRAND TOTAL	ALTERATIONS				LOCATION	
			COMMISSIONED OFFICERS	NONCOMMISSIONED OFFICERS	STAFF OFFICERS	RANK & FILE	TOTAL	SICK PRESENT	SICK ABSENT	ON COMMAND & EXTRA SERVICE		ON FURLOUGH	DEATHS	TAKEN PRISONER	DISCHARGED		JOINED, ENLISTED, RECRUITED
OCTOBER 1776 (continued)																	
NORTHERN DEPARTMENT UNDER MAJOR GENERAL HORATIO GATES																	
1st brig.	24th cont'l. (Mass.)	John Grenton	17	27	1	131	179	53	3	97	331					Ticonderoga, N. Y.	
	25th cont'l. (Mass.)	(late) William Bond	15	24	2	107	133	21	32		321					Ticonderoga, N. Y.	
	Cont'l. regt. (Conn.)	Charles Burrill	22	31	2	81	136	66	26	51	28	317				Ticonderoga, N. Y.	
	Mass. militia	Elisha Porter	17	19	1	89	128	68	28	64	19	309				Ticonderoga, N. Y.	
	Conn. state	Heman Swift	23	10	5	135	203	130	89	30	2	451				Ticonderoga, N. Y.	
2nd brig.	Conn. state	Samuel Mott	30	37	1	214	285	91	152	64	592					Ticonderoga, N. Y.	
	2nd cont'l. (N. H.)	(late) James Reed	17	36	3	133	189	58	18	32	9	307				Ticonderoga, N. Y.	
	15th cont'l. (Mass.)	John Paterson	26	32	3	168	229	61	46	20	33	392				Ticonderoga, N. Y.	
	18th cont'l. (Mass.)	Edmund Phinney	29	39	5	184	257	116	17	44	1	429				Ticonderoga, N. Y.	
	N. H. rangers	(late) Timothy Bedel	16	32	4	152	204	33	25	37	78	377				Ticonderoga, N. Y.	
3rd brig.	Wyman's N. H.	Isaac Wyman	26	32	2	250	320	121	7	111	559					Ticonderoga, N. Y.	
	5th cont'l. (N. H.)	John Stark	28	38	4	214	300	26	44	1	365					Ticonderoga, N. Y.	
	6th cont'l. (N. H.)	Enoch Poor	24	41	4	133	202	157	43	72	2	476				Ticonderoga, N. Y.	
	Wingate's N. H.	Joshua Wingate	29	39	4	237	300	175	4	115		603				Ticonderoga, N. Y.	
	1st Pa. bn.	John Phillip De Haas	36	31	4	286	357	2	148	36		543				Ticonderoga, N. Y.	
4th brig.	2nd Pa. bn.	Joseph Wood	29	31	4	179	243	136	53	19	1	452				Ticonderoga, N. Y.	
	4th Pa. bn.	Anthony Wayne	31	44	5	261	341	141	22	53		560				Ticonderoga, N. Y.	
	6th Pa. bn.	William Irvine	21	27	4	199	251	182	62	26	1	523				Ticonderoga, N. Y.	
	1st N. J.	William Wins	23	16	3	107	149	17	143	16		327				Ticonderoga, N. Y.	
	2nd N. J.	William Maxwell	22	37	4	126	189	91	97	36		413				Ticonderoga, N. Y.	
5th brig.	3rd N. J.	Elias Davton	33	48	3	145	229	21	49	11	2	615				Ticonderoga, N. Y.	
	6th cont'l. (Mass.)	Asa Whitcomb	29	27	1	178	238	83	54	70		415				Ticonderoga, N. Y.	
	Mass. militia	Edward Wigglesworth	34	44	5	161	241	103	4	111	1	493				Ticonderoga, N. Y.	
	Mass. militia	Benjamin Ruggles Wookbridge	32	47	4	316	419	115	2	88	1	625				Ticonderoga, N. Y.	
	Mass. militia	Jonathan Reed	33	46	4	222	305	156	22	131		614				Ticonderoga, N. Y.	
6th brig.	Mass. militia	Ephraim Wheelock	30	26	1	180	240	130	25	217		612				Ticonderoga, N. Y.	
	Mass. regt. B	Samuel Brewer	11	57	4	404	566	67	32	64	1	670				Ticonderoga, N. Y.	
	Mass. regt. D	Aaron Willard	19	53	5	345	465	108	31	92		676				Ticonderoga, N. Y.	
	5th N. Y.	Goose Van Schaick	15	21	3	132	171	48	1	60	4	284				Fort George, N. Y.	
	N. Y. levies	Cornelius Van Dyck	6	13	1	39	59	10	15	87	1	172				Fort George, N. Y.	
7th brig.	4th N. Y.	Cornelius D. Wynkoop	11	12	1	52	74	52	16	38	6	183				Skonesborough (Whitehall), N. Y.	
	TOTAL OF INFANTRY		785	1059	112	5768	7721	2907	1296	2025	101	14043					
MILITIA WHICH JOINED THE NORTHERN DEPARTMENT TO DEFEND TICONDEROGA AFTER THE DEFEAT OF THE FLEET ON LAKE CHAMPLAIN (Dismissed Nov. 9)																	
8th brig.	Mass. militia	Moses or B. Robinson D	24	28	3	93	148	1	3	9	161					Ticonderoga, N. Y.	
	Mass. militia	Timothy Brownson	12	10	2	59	83				91					Ticonderoga, N. Y.	
	14th N. H. militia	Enoch Hale	5	8	1	24	38				38					Ticonderoga, N. Y.	
	13th N. H. militia	Samuel Ashley	20	12	3	100	135	3	1	3	142					Ticonderoga, N. Y.	
	15th N. H. militia	Benjamin Bellows, Jr.	16	12	3	61	95				95					Ticonderoga, N. Y.	
9th brig.	17th N. H. militia	Jonathan Chase	21	19	3	54	94				94					Ticonderoga, N. Y.	
	Mass. militia	Moses or B. Robinson D	19	18	3	93	133	6	2	30	171					Ticonderoga, N. Y.	
	Mass. militia	Caleb Hyde	11	51	1	267	359				7	366				Ticonderoga, N. Y.	
	TOTAL OF ADDITIONAL MILITIA		158	158	15	754	1085	10	13	50		1158					
ARTILLERY																	
10th brig.	Cont'l. artillery co.	(Maj.) Stephen Baitam	11	37	3	10	21	16	3	2	118					Ticonderoga, N. Y.	
	TOTAL OF NORTHERN DEPARTMENT		954	1251	130	6562	8900	2833	1372	2083	191	15319					

Objective:

To practice communication skills and writing responses to literature.

Target Age:

Grades 4-8

Class Orientation:

Individual

Time Needed:

20 minutes to read letter together in class, 20-30 minutes to plan individual product and begin work. An additional class period will be needed to present final products to the class.

Materials:

Copies of the Kennedy letter for each student or one transparency for the overhead projector.

The Kennedy Letter

Introduction:

This letter, now housed at the Bailey Howe Library at the University of Vermont, brings the pain and suffering of war to a personal level through one soldier's plea to his family to come to Mount Independence and assist him in making the journey home. Unfortunately, he passed away before family members arrived to take him home.

Activities:

- Show copies of the original version of the Kennedy letter.
- Point out the style of handwriting and the historic spellings and capitalizations. Have students compose a tribute to Mr. Kennedy in a way of their choosing: a poem, epitaph, gravestone inscription, song, picture, article for his hometown newspaper, etc.



Transcript of Kennedy family documents, received from R. Gale Spaulding, 105 Bellevue Ave., Rutland, VT, 23 March 1965

To
Mr. Robert Kennedy
in
Goffstown [N.H.]
this with care

Camp at Mount Independence 11th Octr

1776 Loving Brother,

I inform you that I am & has been in
a low state of health for some time past
& dont immagine I shall get well very
soon; wherefore I earnestly Intreat you
Not to delay coming for me or if you
Can't come Yourself send A man that
you can confide in & a Hores for me;
let whoever comes; bring some Butter &
Indian Meal with him to serve me on the
way home I can Get discharged as soon
as one comes for me; but as I am so frail at
present htat I could not Venture home
alone; I desire You'l Remember me to
my wife & family & the rest of my
Relations I am with due respect
You[r]

Loving Brother, Mathew Kennedy
P:S: there is hardly any Sustenance to
be had for Man or Hores Between this
Place and No 4 so I advise You to bring
some porvender: Excuse the Meanness of the paper
A note added later states, "october the sixteen then Died Mathew Kennedy 1777".

Resources:

Bird, Harrison. Navies in the Mountains. Oxford University, 1962.

Christofferson, David. Batteau, Barfloe, A Pictorial Collection. St. Paul: Fox in a Circle Productions, 1986.

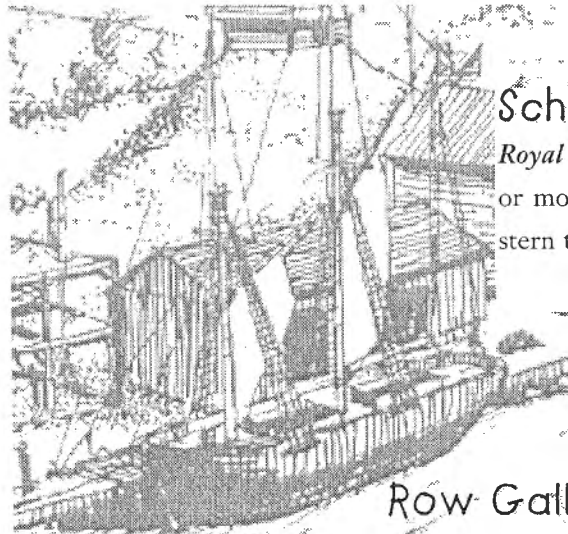
Coggins, Jack. Ships and Seamen of the American Revolution. Harrisburg, PA: Stackpole Books, 1969.

Community Resources:

Visit the Lake Champlain Maritime Museum in Basin Harbor. This museum has constructed a full size working replica of Arnold's gunboat *Philadelphia* and a *bateau*.

A Navy Without An Ocean

American Navy on Lake Champlain During the Revolutionary War



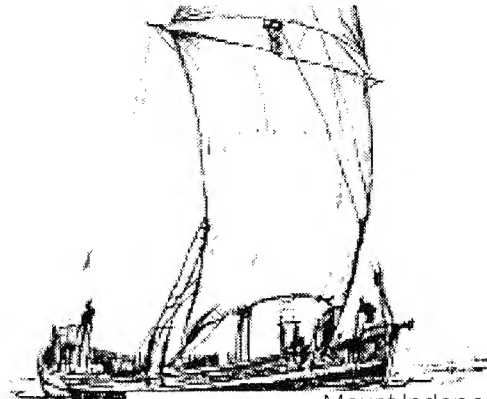
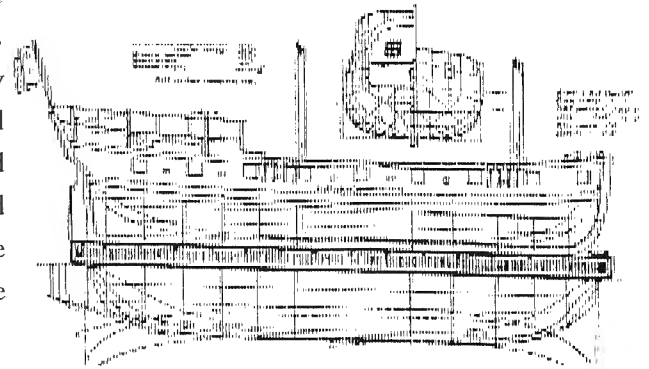
Schooner:

Royal Savage, Liberty and Revenge. Schooners had two or more sails, the main mast being taller and nearer the stern than the foremast.

Row Galley:

Trumbull, Washington, Congress, Gates, and Lee.

These vessels were long and narrow proportionally (about 72 feet long and 20 feet wide), with a round bottom and shallow draft. They were nimble and easily maneuvered with oars. The *Trumbull* and *Gates* were sister ships, slightly smaller than the *Washington*. The *Congress* was the largest and the *Lee* smallest. They carried about 80 men.

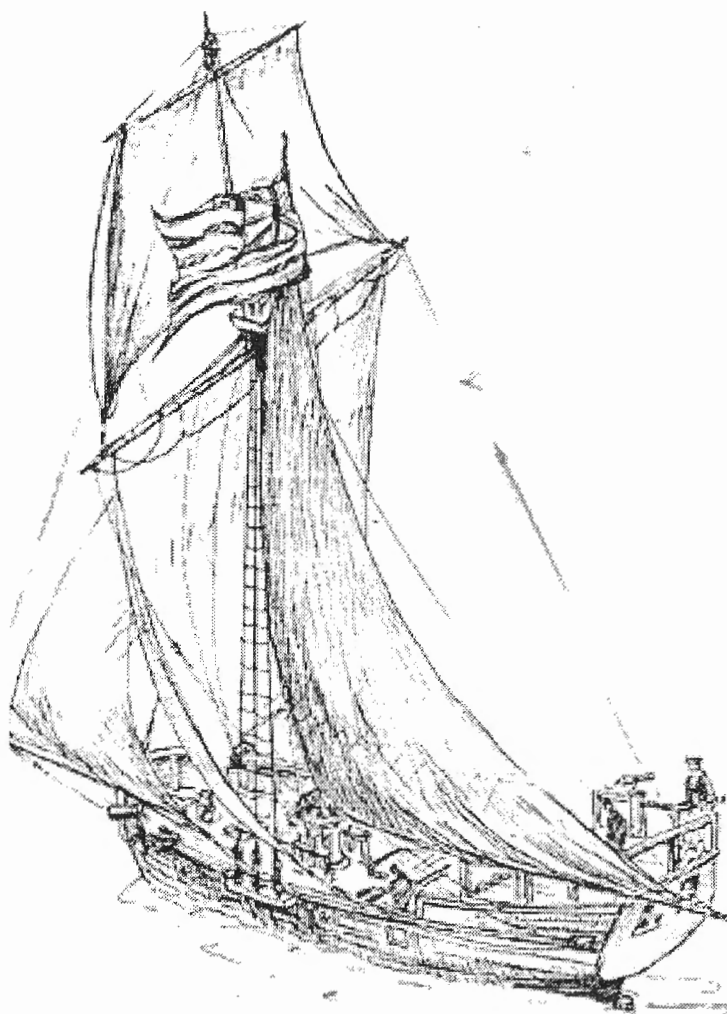


Gondola:

Providence, New Haven, Boston, Spitfire, Philadelphia, Connecticut, Jersey, and New York. Gondolas moved under sail or oar. Lake Champlain gondolas had tall masts. The mast on the *Philadelphia* was 35'11". Arnold's design for gondolas called for a vessel totaling 48' in length, the length of the *Spitfire*. The *Philadelphia*, raised from Lake Champlain in 1935, was 54' long with a beam of 15' and a depth of only 5'.

Bateau:

These double-ended, flat bottomed boats, inspired by the Native American canoe, are American in origin. The designer is unknown, however Pierre Radison remarked on bateaux as early as 1658. An Admiralty draught of a colonial bateau from 1776, shows a portable boat, about 19' in length, 42" in breadth, with a shallow draft of 13 3/4". They were manned by about 45 men.



Sloop and Cutter:

Lee and the *Enterprise*. Small, single-masted, fore-and-aft-rigged sailing boats.

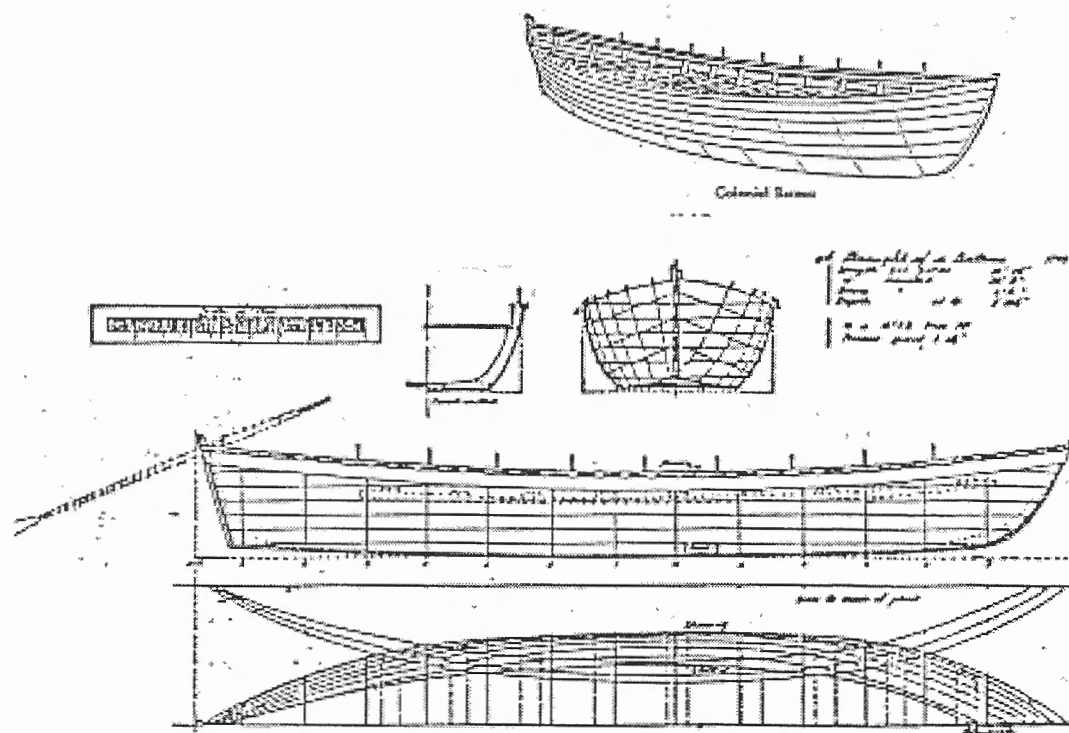


Fig. 13. Design of a colonial bateau, probably for use on Lake Champlain in Burgoyne's campaign of 1776, from an Admiralty draught.

Benedict Arnold managed to amass quite a few sailing vessels in a few months time and equip them with armament. Using the navy effectively, especially on a small body of water like Lake Champlain, must have been quite different than doing battle on the open seas.

Arnold's Fleet on Lake Champlain

<i>Enterprise</i>	Sloop	12 4-pounders, 10 swivels
<i>Royal Savage</i>	Schooner	4 6-pounders, 8 4-pounders, 10 swivels
<i>Revenge</i>	Schooner	4 4-pounders, 4 2-pounders
<i>Liberty</i>	Schooner	4 4-pounders, 4 2-pounders
<i>Lee</i>	Cutter	1 12-pounder, 1 9-pounder, 4 4-pounders 2 swivels
<i>Washington</i>	Galley	2 18-pounders, 2 12-pounders, 2 9-pounders, 4 4-pounders, 1 2-pounder, 8 swivels
<i>Trumbull</i>	Galley	1 18-pounder, 1 12-pounder, 2 9-pounders, 6 6-pounders, 6-8 swivels
<i>Congress</i>	Galley	Same as Trumbull
<i>Philadelphia</i>	Gondola	1 12-pounder, 2 9-pounders
<i>New York</i>	Gondola	Same as Philadelphia
<i>Connecticut</i>	Gondola	Same as Philadelphia
<i>Providence</i>	Gondola	Same as Philadelphia
<i>Jersey</i>	Gondola	Same as Philadelphia
<i>New Haven</i>	Gondola	Same as Philadelphia
<i>Spitfire</i>	Gondola	Same as Philadelphia
<i>Boston</i>	Gondola	Same as Philadelphia

The *Enterprise*, *Royal Savage*, and *Liberty* were captured from the British in 1775. The other vessels were built in 1776.

Objectives:

To develop alternative battle strategies and possible battle outcomes to naval maneuvers on Lake Champlain.

Target Ages:

Grades 5-12

Class Orientation:

Individual, pairs, or small groups

Time Needed:

At least 3 class periods 45 minutes each. Library research time and class time to work on maps, projects, position papers or drawings.

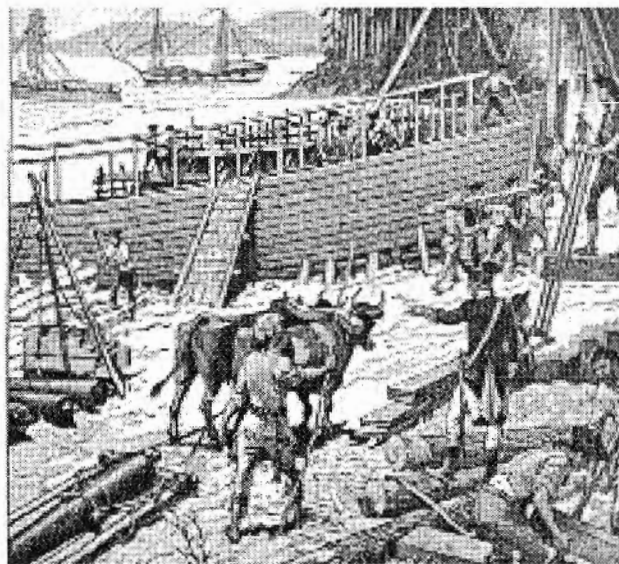
Materials:

- Library resources.
- Oaktag
- Half gallon milk jug
- Information sheet "Arnold's Fleet on Lake Champlain" (att.)
- the "Battle of Valcour Island" map (att.)
- "Batteau Diagram" (att.)

Activities:


- In 1777, the navy took a defensive stance rather than offensively challenging the British for dominance of Lake Champlain. Pretend the opposite was true. What offensive measures would you recommend? What outcomes would you predict? Make a drawing or diorama showing your recommendations.

- Research the Battle of Valcour Island. Look at the map given with this activity showing the location of Arnold's fleet and the position of the British fleet. Find Valcour Island on a map showing Lake Champlain. What other possibilities did Arnold have? Draw maps showing other choices. What choice do you think would have been best? Support your answer.



Benedict Arnold Building a Fleet

- Using the diagram of a bateau given with this activity form small groups to construct a bateaux from oak tag or strips cut from plastic, gallon-size milk containers. Suggested measurements are: Length: 19 feet (19 inches for scale model where 1 foot equals 1 inch) gun'l beam (support beam across the top- middle of the boat) Width: 42 inches (3 1/2 inches). bottom beam (centered under the gun'l beam at the widest part of the boat) Width: 32 inches. (7/8 inch, approx.) Depth: 20 inches (3/4 inch, approx.)
- Batteau and galleys were rowed by a team using coordinated rowing techniques. Divide the class into rowing teams of 4 to 8 members. Give each team ten minutes to practice synchronizing rowing with team members sitting on the floor using their arms in push-pull rowing motions. Hold a rowing contest where the team that maintains synchronized rowing for the longest time wins.



NOTE: Upper grade students can use math skills to figure out different scales for building the model

Encourage students to make up chants or cadences to coordinate motions. Chants can be as simple as "heave-ho, heave-ho" or "one-two, one-two."

- Research 18th century warships. Make a drawing of a warship and label the parts.
- Research historic bateaux and the modern Adirondack guide boat. How has bateau design changed over time? In what ways has it not changed significantly? Are these changes functional or fashionable? How is the bateau design different from the Adirondack guide boat design? What are the similarities?
- Interview someone with knowledge of sailing or rowing. Share your findings with the class as a report, videotaped interview, demonstration, etc.

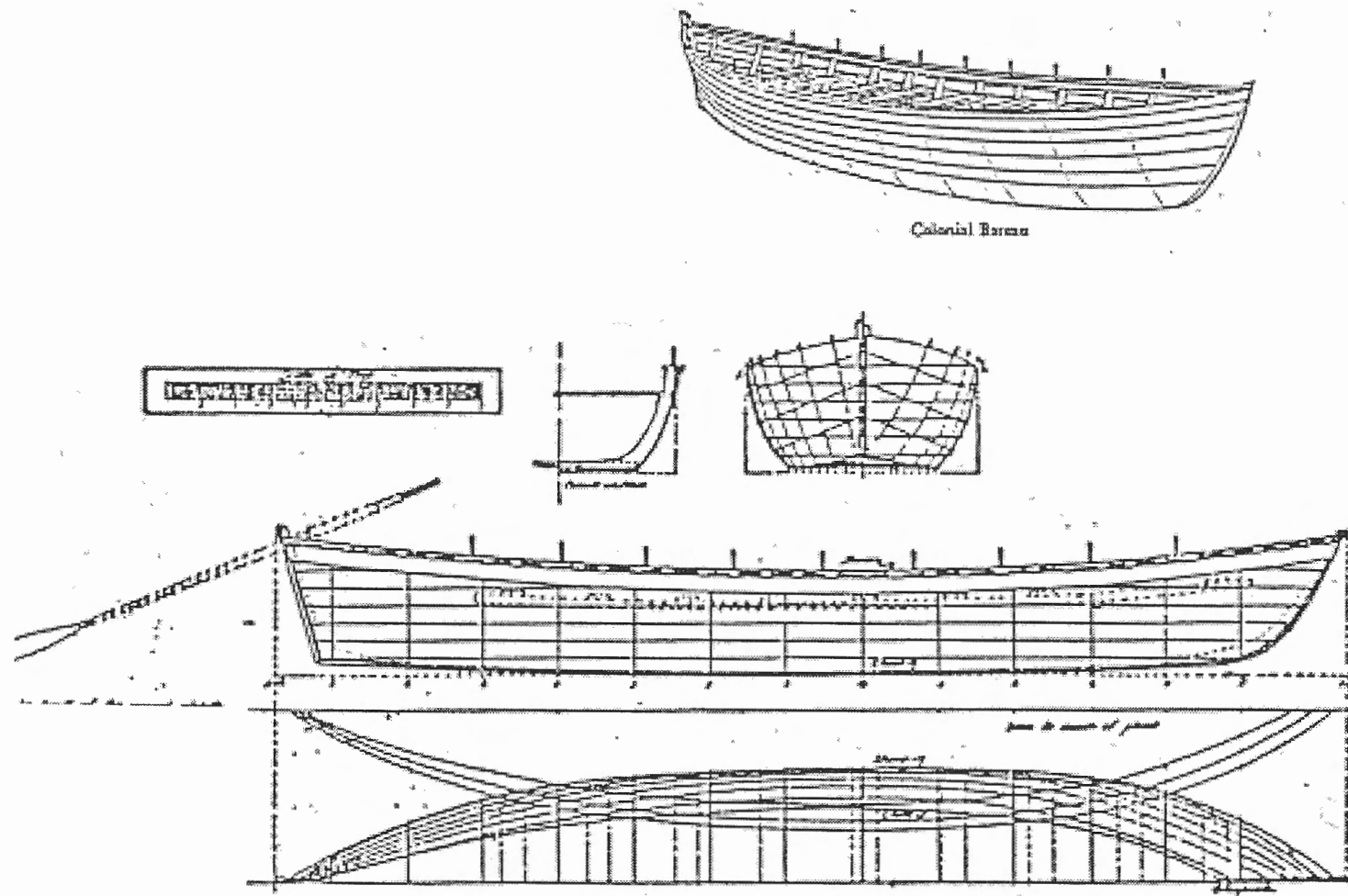
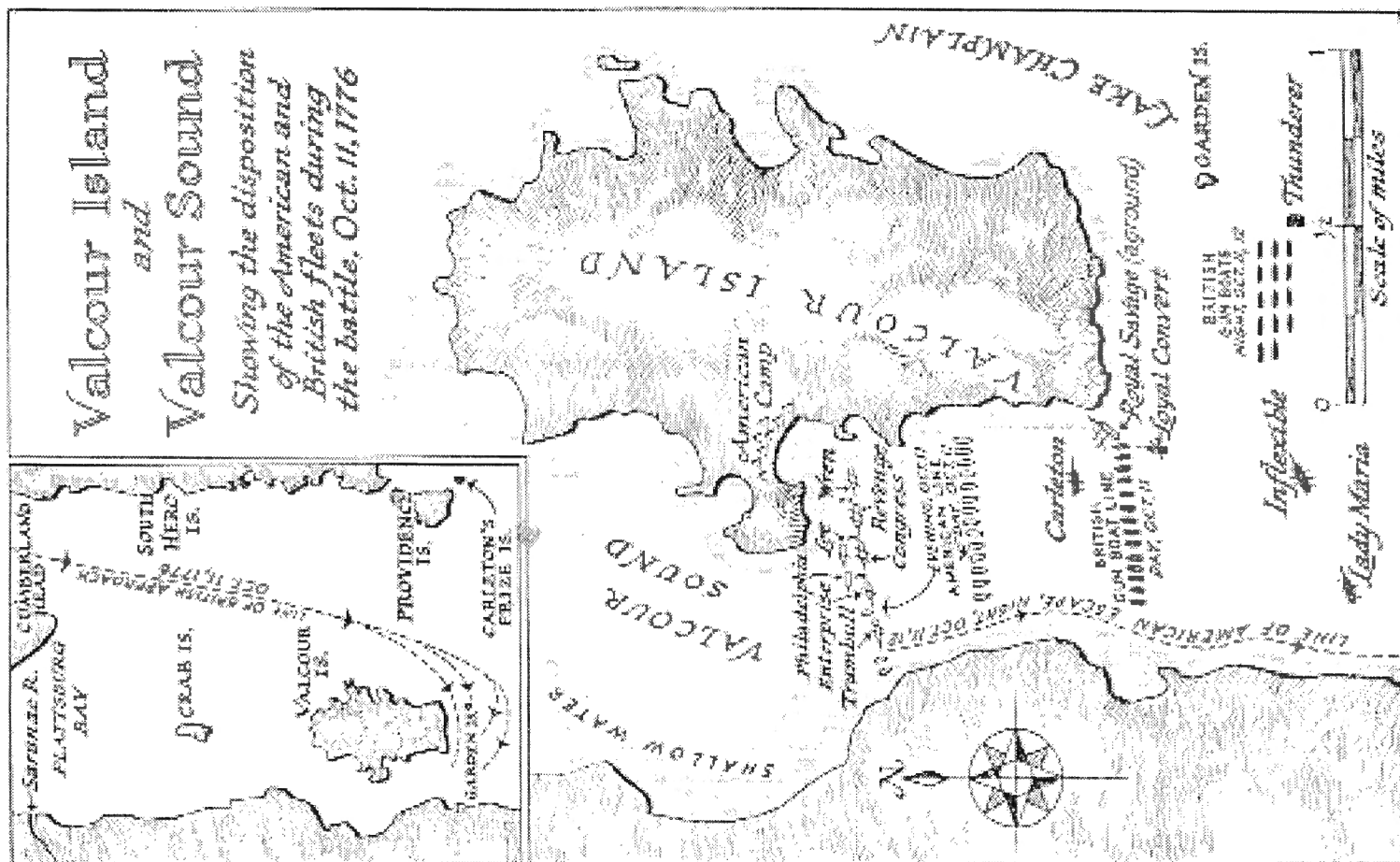


Fig. 13. Design of a colonial bateau, probably for use on Lake Champlain in Burgoyne's campaign of 1776, from an Admiralty draught.



Where's the Mizzen, Major?

Objective:

To learn common terms for parts of an 18th-century sailing vessel

Target Ages:

Grades 4-8

Class Orientation:

Individual or pairs

Time Needed:

30 minutes

Materials:

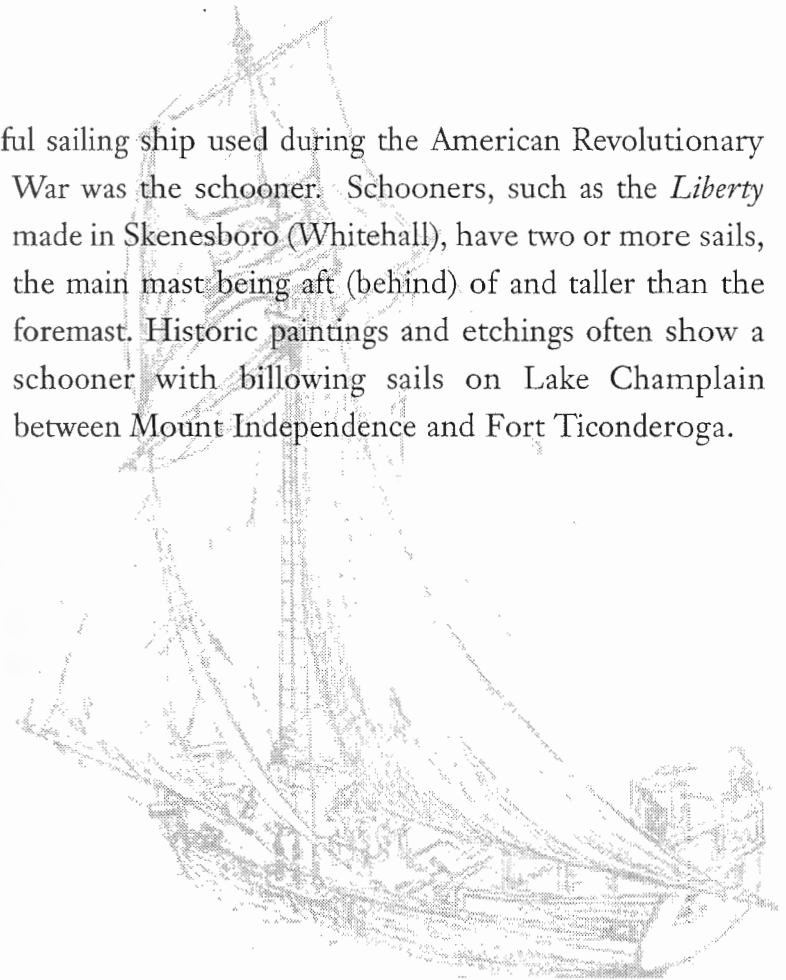
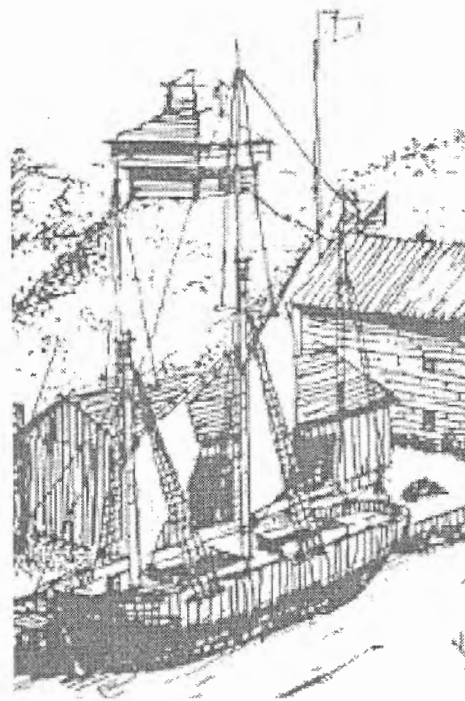
Copies of handout sheet

While at the Mount:

Sit at the Horseshoe Battery and sketch the shoreline across the lake. Draw a schooner on Lake Champlain between the two forts.

Introduction:

Perhaps the most beautiful and graceful sailing ship used during the American Revolutionary War was the schooner. Schooners, such as the *Liberty* made in Skenesboro (Whitehall), have two or more sails, the main mast being aft (behind) of and taller than the foremast. Historic paintings and etchings often show a schooner with billowing sails on Lake Champlain between Mount Independence and Fort Ticonderoga.



An Anagram is a word or phrase which can be made by changing or adding letter to another word.

Make new words using the letters below.

Try to create nautical words (e.g. "N" ...naval).

Y
A
R
D

S
P
R
I
T
S
A
I
L

M
A
I
N

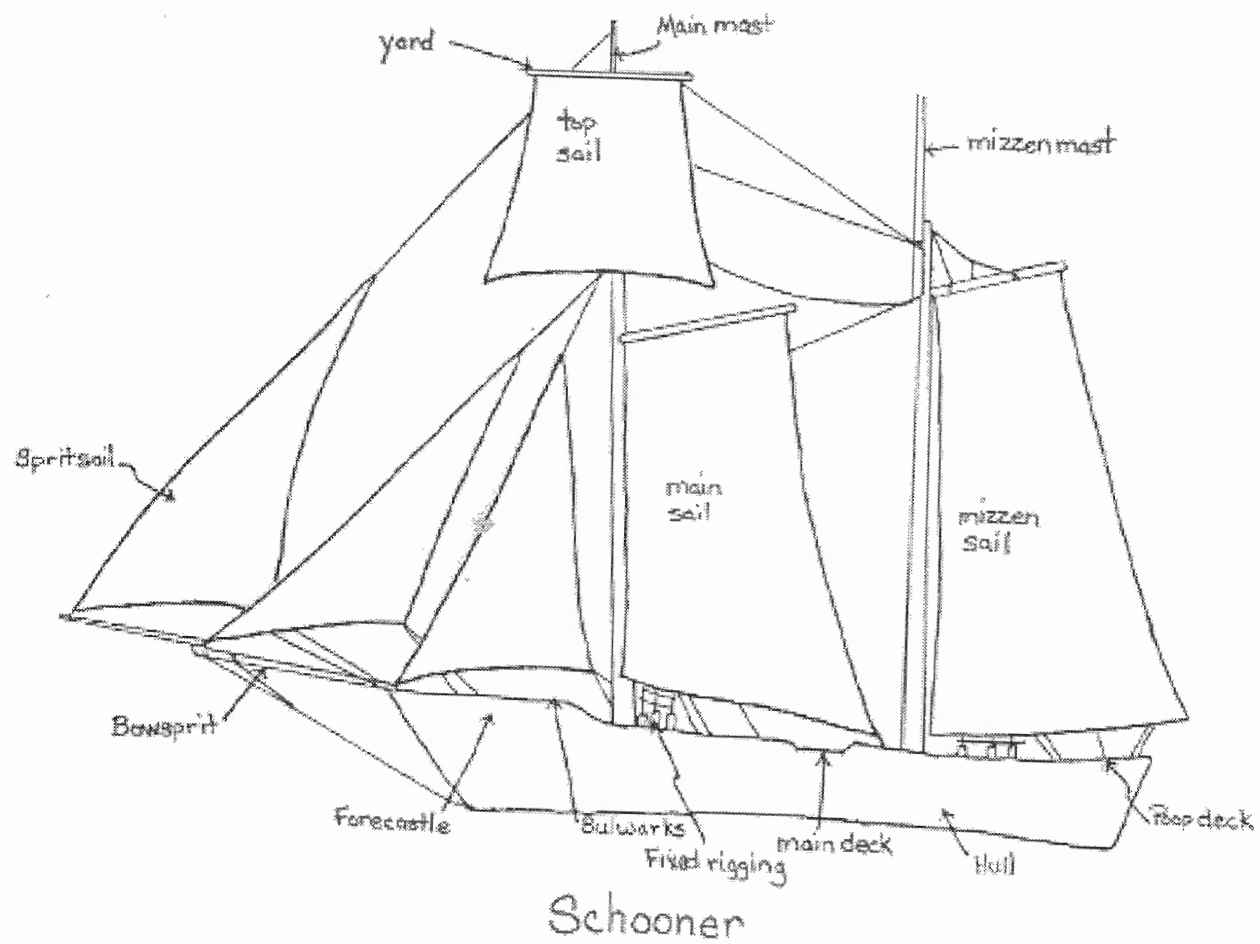
S
A
I
L

B
U
L
W
A
R
K

T
O
P

S
A
I
L

M
I
Z
Z
E
N



Objective:

To look at historical figures from differing perspectives.

Target Ages:

Grades 6-12

Class Orientation:

Individual

Time Needed:

Several days to research and write final report

Materials:

Library for researching topics

Halt, Who Goes There? Friend or Foe?

Controversial Biographical Studies from Mount Independence

Introduction:

Three colorful and controversial personalities stand out from the illustrious list of people connected with Mount Independence: Benedict Arnold, Ethan Allen, and Arthur St. Clair. Benedict Arnold's name has become synonymous with betrayal, treason and the term "turn coat." Ethan Allen's bold and blustering personality caught him in the middle of negotiations concerning whether Vermont would become a free and independent state or a Canadian province. Arthur St. Clair's name will forever be tarnished by his court martial trial, even though he was found not guilty on all charges.

Where to place one's loyalty during the Revolutionary War was sometimes confusing. In England, finding recruits to fight in the colonies was not easy. The British people had many personal ties with the colonies, and many men did not want to take up arms against people they considered kin and countrymen. On this side of the Atlantic, colonists were branded as "Tory loyalists" when their sympathies gravitated too much towards the British. Both British and American leaders were keenly aware of the unsettled allegiance of many colonist. The autobiography of Colonel John Trumbull relates the persuasive actions of British General Guy Carleton towards the men captured in the Battle of Valcour Island.

As soon as the action was over, Sir Guy gave orders to surgeons of his own troops to treat the wounded prisoners with the same care as they did his own men. He then ordered that all the other prisoners should be immediately brought on board his own ship, the Royal Charlotte, where he first treated them to a drink of grog, and then spoke kindly to them, praising the bravery of their conduct, regretting that

it had not been displayed in the service of their lawful sovereign, and offered to send them home to their friends, on their giving their parole that they would not again bear arms against Great Britain until they should be exchanged.

A few days after the defeat ... I received the prisoners; all were warm in their acknowledgment of the kindness with which they had been treated, and which appeared to me to have made a very dangerous impression. I therefor placed the boats containing the prisoners under the guns of a battery, and gave orders that no one should be permitted to land, and no intercourse take place with the troops on shore until orders should be received from Gen. Gates...accordingly they were ordered to proceed immediately to Skenesborough . . . without being permitted to land (Sizer 1953).

Brief summaries of the controversies surrounding Arnold, Allen and St. Claire are given below. Students can round out the biographical sketches with information from general library sources.



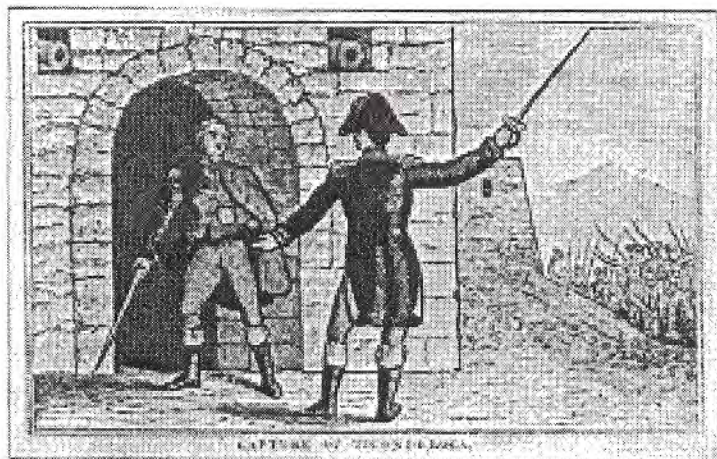
Benedict Arnold

Benedict Arnold is considered by some historians to have been one of the bravest combat and tactical officers in the army. Risking his life in almost every battle he fought, he was wounded twice in service to the colonial mission. He led the march to Quebec, assisted in capturing Fort Ticonderoga, and held back Carleton's army for another season with his brave little fleet on Lake Champlain. He fought valiantly at Ft. Schuyler and Saratoga. Although wounded in the leg at Saratoga, he rallied troops to take the Breymann Redoubt in an action that may have made the difference between victory and defeat in this most significant battle. George Washington, known for his almost legendary fearlessness during battle, made comment on Arnold's display of courage at Saratoga, calling him "the bravest of the brave." Some historians speculate that the war, not just a battle, could have been lost without his efforts both at Valcour Island and Saratoga.

However, his reputation is forever tarnished by his negotiations with the British for the betrayal of West Point. His action was a personal blow to George Washington and a unforgivable act to many of his American compatriots. Explanations for Arnold's behavior include his marriage into a loyalist family, his need for money, and his perception that he was passed over for a deserved promotion. Perhaps more compassion could be shown

for Arnold if indication could be found for a sincere change of heart and conscience- toward the British cause in the colonies. Information seems to point to self elevation and fame for his motivation.

Ethan Allen



Ethan Allen (in doorway) taking Fort Ticonderoga from the British

If Ethan Allen can be accused of any misguided feelings toward his country, it would be that he loved it less than he loved Vermont. When Ethan Allen captured Fort Ticonderoga, Vermont was still a wilderness territory caught in a land dispute between New York and New Hampshire. Instead of being divided up between New Hampshire and New York, Allen envisioned Vermont as the fourteenth independent colony/state.

Aware of Allen's desires, British General Clinton was advised to turn over to Allen, "and his adherents the property of all the lands appropriated to rebels and making that country a separate government dependence on the Crown and the laws of Great Britain." Communication between the two camps was indirect and "off the record". Conflicting statements, all attributed to Allen sources, further confused the issue. One source wrote that Allen "declares himself well affected to his Majesty and assigns as a reason for not proceeding with

his troops' that French and Spanish assistance 'created a temporary division' of opinion in Vermont."

Another British emissary from Canada reported that Allen said he would have no part in any, "Arnold plan to sell his country and his own honour by betraying the trust reposed in him".

Beverly Robinson, in a letter dated February 2, 1781, stated that he believed that Allen "would willingly assist in uniting America against Great Britain and restoring that happy constitution we have so wantonly and unadvisedly destroyed" (Van Doren 1941:404).

Allen himself wrote to Congress on March 9, 1781:

"I am confident that Congress will not dispute my sincere attachment to the cause of my country' but he declares that Vermont had a right 'to agree on terms of cessation of hostilities with Great Britain, provided the United States persists in rejecting her application for union with them'. Congress could not expect Vermont to defend the independence of states (New York and New Hampshire) which claimed 'full liberty to overturn and ruin the independence of Vermont...I am as resolutely determined to defend the independence of Vermont as

Congress are that of the United States; and rather than fail will retire with hardy Green Mountain boys into the desolate caverns of the mountains and wage war with human nature at large'. There, Allen said, he could live on 'mouse meat'." (Van Doren 1941)

Controversy and intrigue surrounding Ethan Allen seem to have made him and even more endearing character to some. Students will enjoy researching this multi-faceted personality.

Major General Arthur St. Clair

General St. Clair's general court martial convened on August 25, 1778 at White Plains, New York, where the following charges

were stated:

First - With neglect of duty

Second - With cowardice, with treachery, with incapacity as a General

Third - With treachery

Fourth - With inattention to the progress of the enemy, with treachery, with incapacity as a General, respectively

Fifth - With shamefully abandoning the posts of Ticonderoga and Mount Independence, in his charge



Major General St. Clair who took command of Fort Ticonderoga and Mount Independence on June 13, 1777, and abandoned the post on July 6, 1777, pleaded not guilty to the above charges. He responded that fortifications requested by General Schuyler had not been completed and that the presence of troops and cannons on Mount Defiance (Sugar Hill) put both forts in danger. Besides movement at both forts being observable from Mount Defiance, the

forts were also within cannon range and could be fired upon, without danger from return fire. He considered evacuation to be the best choice and left the forts under the cover of darkness without a shot being fired. Even though a case could be made against abandoning a military post without a struggle, St. Clair's decisions were upheld in court.

The Court, having duly considered the charges against Major General St. Clair, and the evidence, are unanimously of opinion that he is NOT GUILTY of either of the charges against him, and do unanimously acquit of him of all and every of them with the highest honour. (Proceeding of A General Court Martial for Major General Arthur St. Clair 1778).

Activities:

- Students will write a persuasive commentary about one of the controversial people or situations connected with Mount Independence. For this activity students will be asked to examine the complex web of cause and effect in relation to events, analyze the nature of specific conflicts, show how they might have been resolved, and relate how they have shaped Vermont and United States history. It is important in developing historical perspective to understand that our generation is not the first to sensationalize the facts or add to stories about newsworthy figures. This skill is an essential one as our youth are inundated with misrepresentations of historical figures in popular media (e.g. Betsy Ross, Pocahontas, Thomas Jefferson, American folktales about Paul Bunyon, John Henry, Johnny Appleseed and Molly Pitcher.)
- The following list of important colonists at Mount Independence can be used for biographical reports or other activities. Thaddeus Kosciuszko, Philip Schuyler, Horatio Gates, Jeduthan Baldwin, Arthur St. Clair, Anthony Wayne, John Stark, John Trumbull, Henry Dearborn
- Make playing cards showing portraits and biographical facts about individuals associated with Mount Independence and or other historical personalities.
 - * Use playing rules like "Old Maide" or "Concentration".
- Make a shadow play based on dialog and debate among important colonists listed above about evacuating Mount Independence on July 6, 1777.

Objective:

To create timelines and analyze historic perspective.

Target Ages:

Grades 4-12 (Grades 2-3 with reading and writing assistance and supervision)

Class Orientation:

Individual, pairs, or small groups

Time Needed:

30 minutes once a week

Materials:

- Current Newspapers
- News magazines
- Paper
- Writing Instruments
- Glue
- Scissors

Nothing New Under The Sun

Gaining Historical Perspectives and Creating Timelines

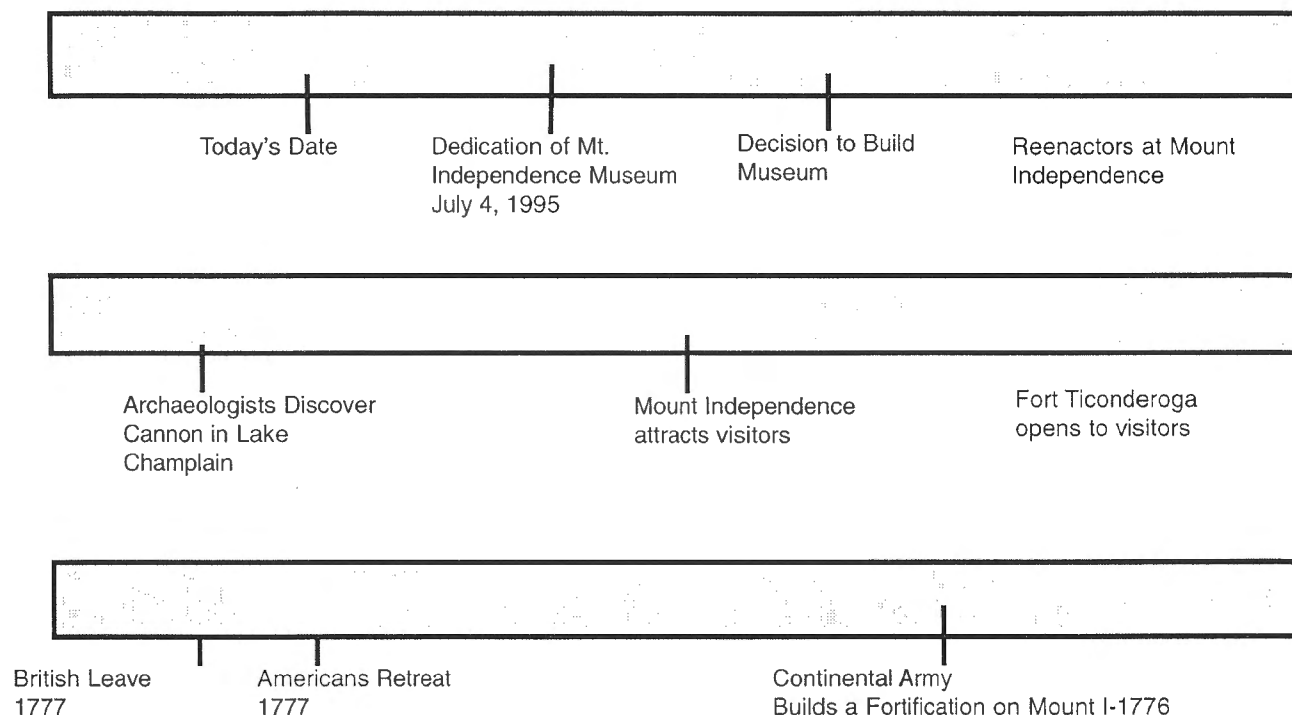
Introduction:

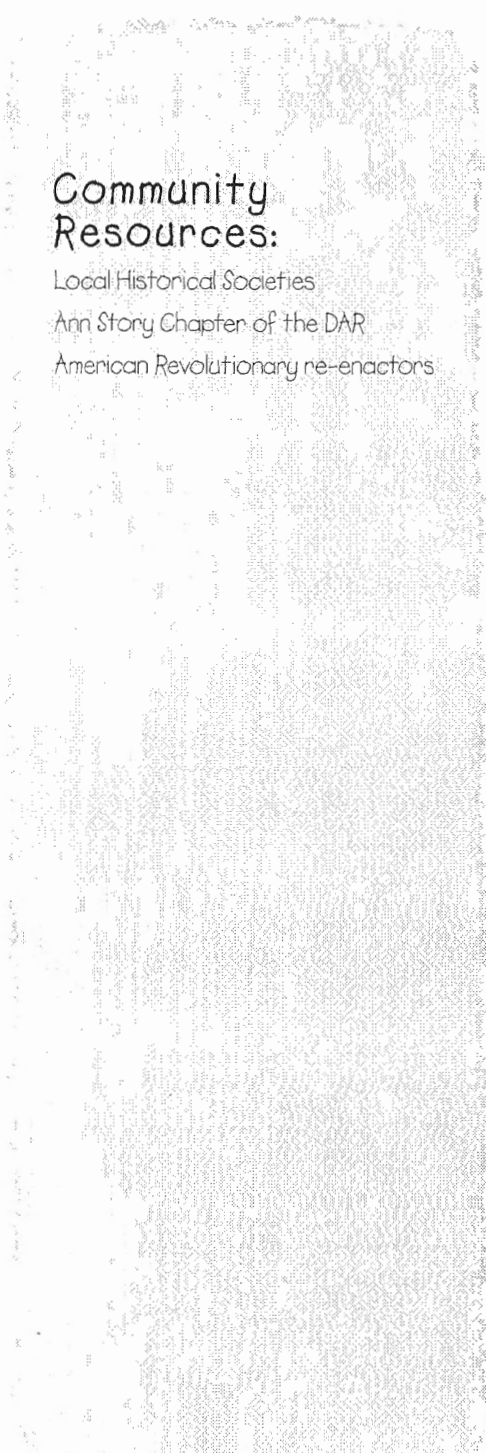
There is an old saying, “There is nothing new under the sun.” Another popular expression reminds us that if we are not careful, “history repeats itself.” Discuss these sayings with your students, as you remind them that nearly every significant political event of today’s news has deeper roots that often extend back hundreds or thousands of years. Understanding today’s news is an excellent way to gain historical perspective on both the past and the present.

Activities:

- Set aside a news time once a week during the school year. Have students pick current events they find interesting. You may have to guide them away from the celebrity gossip and sensationalized reports that often makes the front page.
- Students should read articles on their topic and begin a timeline of developments. Each week students should seek further information on their topic. If a week goes by with no further news on a specific topic, the student will have to choose a topic that presents greater long-term effect.
- Students should create a subject file which they fill with pertinent information, photos, articles, their own research findings, etc. The contents of the file can be gone through as new details come to light or as research helps students see what is important or not, and useful items can be added to the timeline.

- Under the timeline, students should make notes of references in newspaper articles to historical events or people. These notes become the basis for historical research which, in turn, moves the timeline backward. This activity helps students understand the connections between the past and the present.
- A completed timeline might appear similar to the one below. Build a timeline with pictures and text which illustrates the events which took place before, during and after the establishment of the fortification of Mount Independence. See attached list of events.





Community Resources:

Local Historical Societies

Ann Story Chapter of the DAR

American Revolutionary re-enactors

- Students should also try to compare the views of American and British historians. An additionally useful exercise is to compare the views of writers of the Revolutionary period with those of later dates. How does the interpretation of events change as we move further away in time from them? Why does this happen?
- Have students explain, in an illustrative essay, what “truth” means to them.
- A popular song states that “there are three sides to every story: yours, and mine, and the cold hard truth.” Ask students to analyze in writing a personal situation in which there was another side to the story that might not have been easy to see at the time of conflict.

Building Independence

A Timeline of Revolutionary War Events and Activities Relating to Mount Independence

May 10, 1775	Capture of Fort Ticonderoga by Ethan Allen and the Green Mountain Boys	March 1777	Construction begins on a large General Hospital
September 1775	Northern Army begins Canadian invasion	April 2, 1777	Large garden is laid out on the western side of the Mount to furnish fresh vegetables to the soldiers
December 31, 1775	Americans are defeated at Quebec	June 13, 1777	General St. Clair assumes command of Mount Independence/Ticonderoga
June 1776	Retreat begins from Canada	June 1777	British army under Burgoyne begins advance from Canada
July 4, 1776	American Independence is declared	July 5, 1777	British occupy undefended Mt. Defiance
July 9, 1776	Decision is made to fortify East Point (Rattlesnake Hill) opposite Ticonderoga	July 5/6, 1777	Mount Independence/Ticonderoga evacuated
July 18, 1776	Word of independence reaches Northern Army on Lake Champlain	July 6, 1777	American fleet & supplies destroyed at Skenesboro
July 25, 1776	Work begins on shore battery	July 7, 1777	Battle of Hubbardton
July 28, 1776	East Point christened "Mount Independence"	August 4-22, 1777	Siege of Fort Stanwix
August 14, 1776	Work begins on Horseshoe Battery	August 6, 1777	Battle of Oriskany
October 1, 1776	Construction begins on star-shaped picket fort	August 16, 1777	Battle of Bennington
October 11, 1776	Battle of Valcour island	September 19, 1777	First battle of Saratoga
October 28, 1776	British advance is halted at Mount Independence and Ticonderoga	September 21, 1777	Americans make unsuccessful assault on Mt. Independence
November 1776	Congressional Committee inspects forts at the Mount and ticonderoga to assess needs. Col. Anthony Wayne assumes command of Mount Independence/Ticonderoga for the winter	October 7, 1777	Second battle of Saratoga
March 1, 1777	Work begins on bridge connecting Ticonderoga and Mount Independence	October 17, 1777	Burgoyne formally surrenders to Genl. Gates
		November 8, 1777	British and Brunswick forces evacuate Mount Independence

Objective:

To consider how military forces might secure messages

Target Ages:

Grades 2-4

Class Orientation:

Whole class

Time Needed:

15 - 20 minutes for main activity

Materials:

- Pencil, pen or marker
- Paper
- Ruler
- Tape
- Scissors

"T QNGX DNH"

Creating Secret Codes

Introduction

Private! You have been given an urgent message to deliver to the Commander of our allies near Albany. Your strict orders are to keep the message from all eyes but those of the Commander. Knowing the enemy is all around and that spies lurk under our very nose, you must take great care! You are literate and clever; therefore, you are charged with encrypting the message. This way if it falls into enemy hands, it will remain a mystery to them. Codes have long been used to safeguard many important secrets. Kings, soldiers, spies and pirates have used codes for hundreds of years. Write the message in code, and destroy the original. You have your orders.

Activity:

- Turn a piece of notebook paper sideways so that the lines run up and down. Use a ruler and draw a line across the paper about two inches from the top. Beginning in the third space from the left, write the letters of the alphabet. Use the point of one scissor blade and make a 1 inch slit on the left and right side of the paper just below the alphabet line.
- Cut a 3/4" strip of paper from a notebook page and beginning in the second space from the RIGHT, write the alphabet again, but backwards this time. Insert one end of the strip into the slit on the left, and into the slit on the right. The strip can slide back and forth so the letters can line up with the letters above them.

While on the Mount:

Figure out what the following means and follow instructions.

@ GSRH RH Z HZEVMTVI SFMG URMW
YILZW ZIILDRMP DVOO DSRGV
GIZRO ULIG GRXLMWVILTZ ULFI
YRIWH

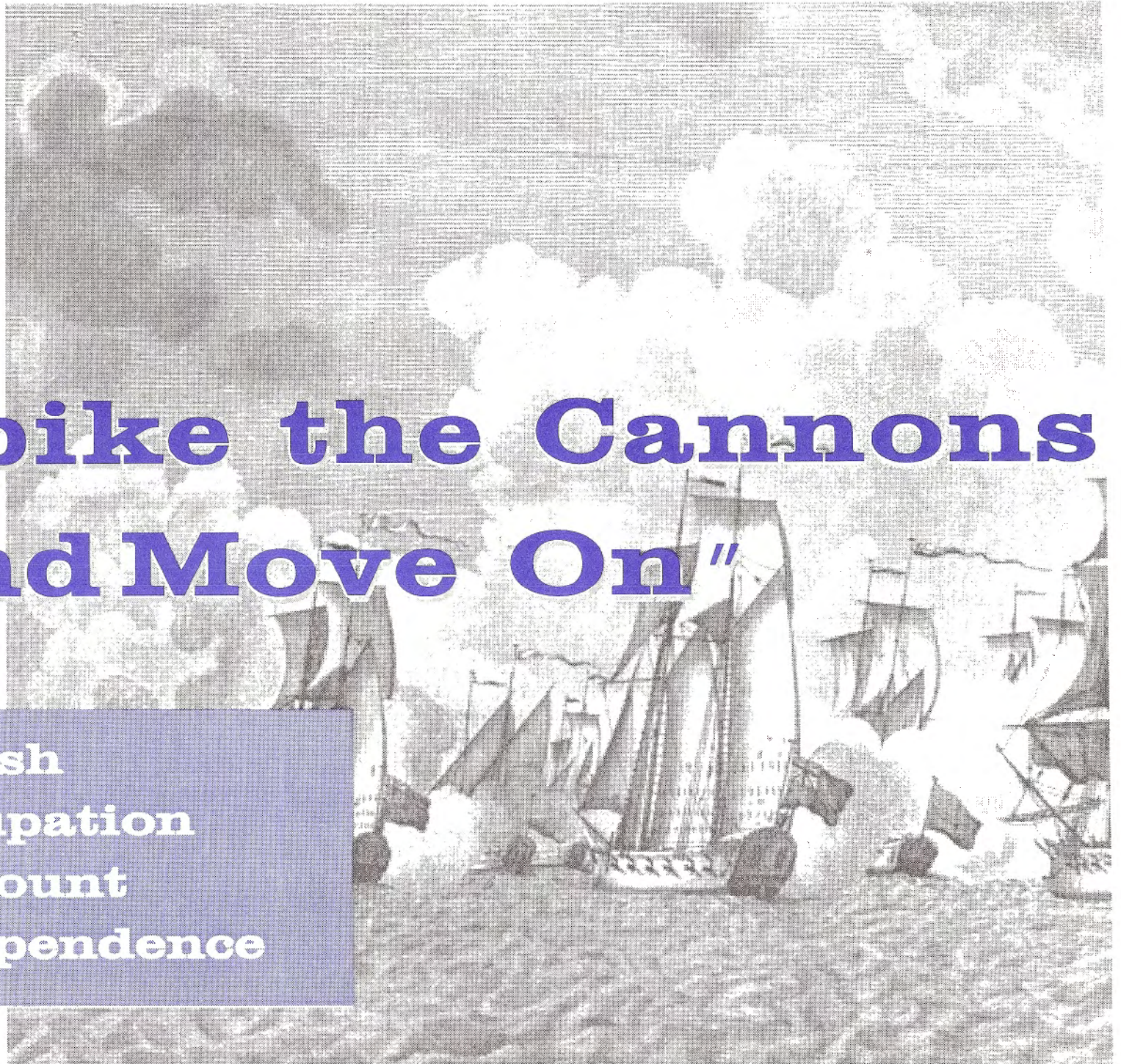
- Pick a letter which will stand for Z and pull the strip so that letter is under the Z; let's use C. So, for example, if you want to encode the phrase "I love you", on your message paper, write the letter C in a circle. This lets the decoder know that C stands for Z in your code. Look for the corresponding letters for "I LOVE YOU". It should look like this, "T QNGX DNH". With each new message, change the code by choosing a new letter to stand for each letter of the alphabet. Remember to include the Z substitute in a circle at the start of the encoded message. Happy coding!
- Try encoding the following message and sending it to a classmate who has a decoder just like yours

"God bless the free and independent states of America."

5

“Spike the Cannons and Move On”

**British
Occupation
of Mount
Independence**



“Spike the Cannons and Move On”

British Occupation of Mount Independence

In this unit on the British occupation, students can expect to learn about the other side of the Mount Independence story. For four months, British forces and their allies held Fort Ticonderoga, Mount Defiance, and Mount Independence. The “place where the lake shuts itself” was vitally important to John Burgoyne’s three-pronged attack on Albany and his hope to cut off New England from the rest of the colonies. Although its construction was begun by Americans, the Mount was built up by British, Scotch, Loyalists, and Germans from Hesse and Brunswick. The four months of British occupation brought to the Mount extremely diverse groups, all of whom were there for very different reasons.



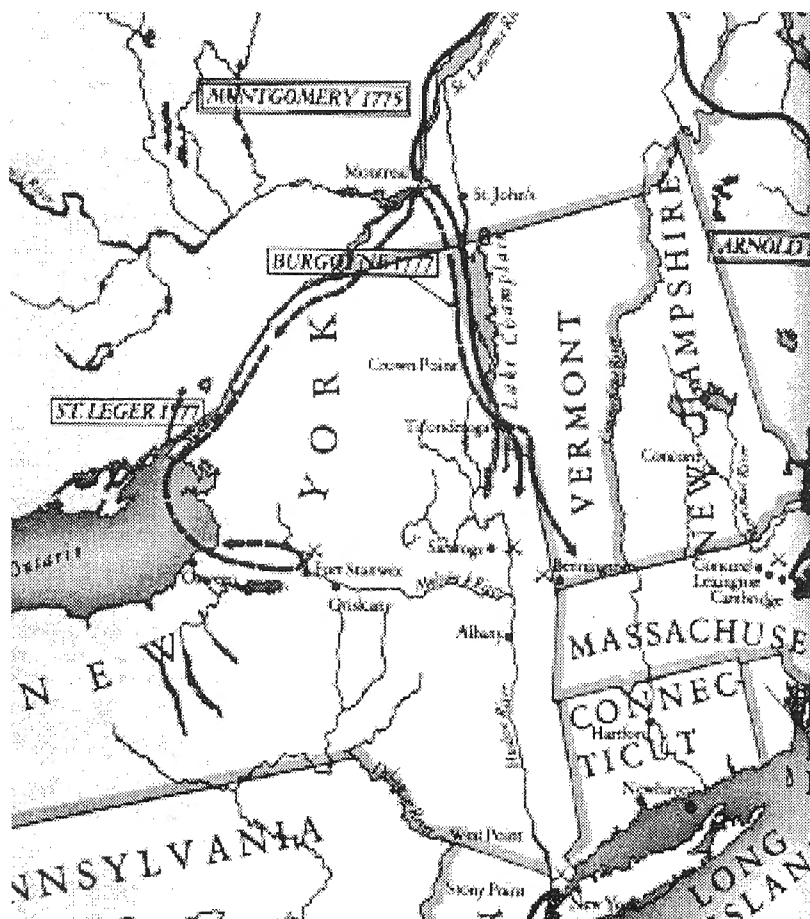
German soldiers looting a colonist's home.
Dover Publications

The information and activities here will present students with challenges to get them thinking about decision making, weighing consequences, and understanding others’ points of view.

The activities in this unit make a nice counterpoint to the perspective on events presented in the chapter on the American occupation. Another interesting use of this chapter is to compare the cultural diversity of the king’s forces to that of the American troops. Activities cover a variety of disciplines focusing on reading, writing, symbol discrimination, music, art, foreign language, and dialogue journal writing.

The Value of the Mount

In any war, it is unusual to find a strategic site that changes hands three times in less than two years without numerous lives lost, but Mount Independence is a rare exception. While its intriguing story of continental military occupation began in July 1776 shortly after the colonies had declared independence from



From: The Mount Independence-Hubbardton 1776 Military Road. Wheeler, Joseph L. and Mabel A. Wheeler, Benson, VT, J.L. Wheeler, 1968.

Great Britain, interest in this part of Lake Champlain was nothing new. In 1774, Canadian Frederick Halimand pointed out to his superior, Lord Dartmouth, that a strong British garrison on the lake would not only secure the line of communications with Canada but also open easy access to the settlements of the northern colonies, catching colonists off guard and keeping them so in awe they would not be organized enough to undertake any acts of violence against the invaders.

Before that could happen, and knowing an attack was coming, the Continental Army devised plans to reinforce their hold on southern Lake Champlain. The British had recently beaten back an American attack on Quebec. The victorious British lay encamped just over the border in Canada where they prepared to launch retaliation for the failed attack on Quebec as soon as they could arrange to transport the necessary men south.

East Point, a seemingly undesirable piece of land in the disputed New Hampshire Grants (later Vermont), surrounded on three sides by water with marshes along East Creek's banks on the fourth, lies nearly directly opposite Fort Ticonderoga. Because Fort Ti faces south, its rear was vulnerable to attack from the north, the direction from which the British intended to mount an invasion. Rattlesnake Hill, as East Point is also known, has a long view up the lake so it was chosen as the best site for Ticonderoga's sister fort (Williams 1977). A northward-facing fort on the east side of Lake Champlain was an ideal solution for the Americans. The two forts together formed a choke point where the shores of the lake jut in and

form a narrow slip. However, it did not intimidate the British.



News of the official declaration of independence reached American troops at Fort Ticonderoga on July 18. In honor of the proclamation, and spurred on by their own enthusiasm, Americans renamed the area across from Fort Ticonderoga, Mount Independence.

Throughout the summer and fall, construction of a star-shaped fort, batteries, bunkhouses, and other buildings continued as the British rallied forces and, in the fall, attacked Valcour Island in New York. But their progress was halted on October 28, 1776 at Fort Ticonderoga and Mount Independence. What turned the invasion back when the British had won a major victory at Valcour? Perhaps it was the impressive site of the newly built picket fort atop Mount Independence, or the fatigue of the long journey from Canada and the battles waged along the way. Maybe it was the eight-day head wind British ships had struggled against, or the approaching winter; maybe it was a combination of all these factors. But, according to John Trumbull's autobiography, as General Sir Guy Carleton's "reconnoitering party was pushed forward to look at" the situation, it suddenly turned back.

Carleton, at the time the governor general of Canada, commanded the Lake Champlain fleet that had intended to cut a divisive line from Canada through New York while coordinated efforts were mounted at Charleston, South Carolina; Oswego, New York; and New York City. The British hope was to cut off New England from the rest of the colonies, stagger trade and commerce by striking at New York, and slow agricultural trade in the south all at the same time. Carleton and his subordinates, General John Burgoyne and Captain Thomas Pringle, believed that the colonies could not withstand such disruption.

However, that October day, in spite of the 8,000 British troops sailing toward the sister forts, the call to retreat went out. Carleton and Burgoyne began to re-think their strategy. The positions of the 25 cannons at the Mount offered little chance for victory from the water. Had Carleton tried to pass between the two forts, the ships would have run into the boom the rebels had just completed, trapping his men and equipment in the cross-fire between the two forts. Wisely, General Carleton had sent ahead reconnaissance who realized the difficulties before them. The four British ships returned north, with their final retreat to Canada from Crown Point on November 3. Sir Guy and his generals considered their options: Would an invasion across the ice of Lake Champlain prove foolish and costly? Should British troops move south during winter or wait until spring? Should a new path be followed?

The Wait

Meanwhile, the Americans did not sit idle at Mount Independence. Taking advantage of the ice, they worked on a floating bridge between the sister forts, successfully creating a direct link between Fort Ti and the Mount. While the Americans were busy raising vegetables at Ticonderoga and Mount Independence in spring 1777, the British's allies were "raising scalps" along the northern reaches of the lake.



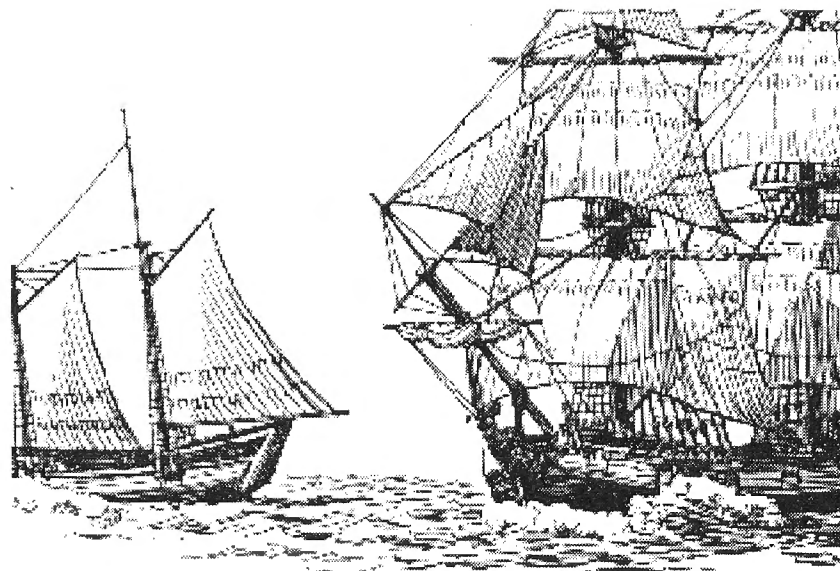
The Americans continued to strengthen the Mount, taking advantage of the winter ice on Lake Champlain to build a bridge and fortify both sides.

its crane, hospital, and storage facilities, making the already valuable site even more attractive to the Redcoats. And in fact, the British had decided to launch a new, slower approach; by the end of February 1777, several regiments had set camp at Grande Isle in preparation for another attack on Fort Ticonderoga and Mount Independence. A possible reason for the second attempt: the British hoped to take the Americans' horses and oxen and insure the continued flow of potash to Britain.

In mid-June, two British scouts were captured and

Burgoyne was getting his first taste of the unruly behavior of those he referred to in his letters as "savages." Later that spring, the Mount saw completion of

brought before General St. Claire; they told him that their comrades, 12,000 strong, would arrive in less than two weeks.



A schooner and a large cargo ship used by the British Navy on Lake Champlain. Dover Publications

St. Clair made the mistake of not believing them. However, as June wore on, and the British were indeed closing in, the Americans began to make preparations, such as loading stores, for hasty removal from the Mount. The first week in July 1777 brought an increase of food and new troops to the American side, but this was not enough to counter the inexorable approach of the determined Brits who, in the words of Jeduthan Baldwin, were "numerous and bold." Along with nearly 3,800 British soldiers were some 3,000 Hessians, 250 Canadians and Loyalists, and over 400 Indians. Not quite the 12,000 mentioned, but easily double St. Clair's number.

Foolishly, the Americans had left Mount Defiance, to the south of Fort Ti, largely unprotected. When General Phillips saw the steep slopes of Defiance, he commented confidently, "Where a goat can go, a man can go, and where a man can go, he can drag a gun." The British easily took the undefended Mount Defiance (approximately one mile to the west of Mount

Independence, and used the vantage point to plan their next strike. They had managed to drag field guns up the 800-foot hill to the crest of Defiance, even though most maps marked the slopes as "inaccessible." The guns aimed at

the sister forts could hit their mark from here, so the British attack was launched on Fort Ti. It is likely, too, that the observation point atop Mount Defiance added to British confidence as troops moved on Fort Ti.

In his journal, General Burgoyne noted,
It seemed that the enemy had employed their chief industry, and were in the greatest force upon

Mount Independence, which is high and circular, and upon the summit, which is Table Land, was a star fort, made of pickets, and well supplied with artillery, and a large square of barracks within it.

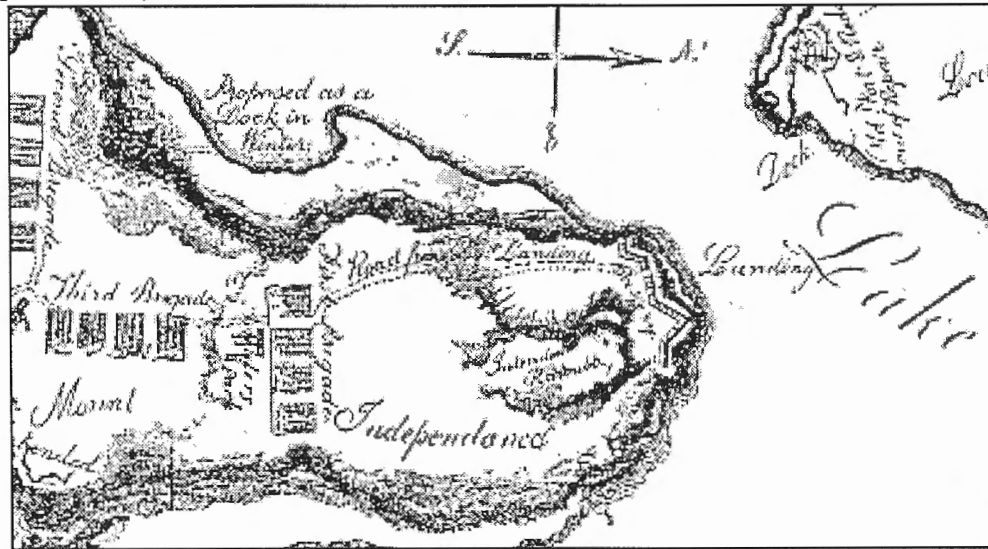
It was an impressive fort, and the British wanted it. General Burgoyne split his troop, ordering the Germans to

advance on Mount Independence from the east, the British from the west through Fort Ticonderoga.

But as the heavily equipped Germans moved toward Mount Independence under the command of General Baron Friederich von Riedesel, they found themselves floundering in the swamps and tangles of East Creek. The advancing troops were in an area described as:

utterly primeval forest, with dead falls and windfalls where immense trunks were stacked like jackstraws of a drunken Titan. Sinister East Creek oozed evilly into the lake, its banks sloughing into a viscous muck where a man could neither walk nor swim (Lancaster 1958: 236).

Knowing his rebels were outnumbered and poorly prepared to do battle, General Arthur St. Clair took advantage of



"Ticonderoga and Its Dependencies, August 1776" From: John Trumbull, *The Autobiography, Reminiscences and Letters of Colonel John Trumbull*. New York, NY, Wiley & Putnam, 1841.

General Baron Friederich von Riedesel's holdup. He decided to sneak away from the forts under cover of night. At 10:00 p.m. he ordered troops to abandon Fort Ticonderoga and flee across the bridge, taking with them what they could. Despite his orders to the contrary, a few of the men set fire to wooden structures in an effort to leave nothing of value for the British, but because of a light rain that began to fall, very few of the original buildings were lost to fire. In the end, all the fire did was light the way for the approaching British troops who realized they would find no resistance at Fort Ticonderoga, the Carillon, as they called it.

The Americans took advantage of how the natural defensive barrier slowed the Germans. They raced to Hubbardton before turning to strike at the advancing British.

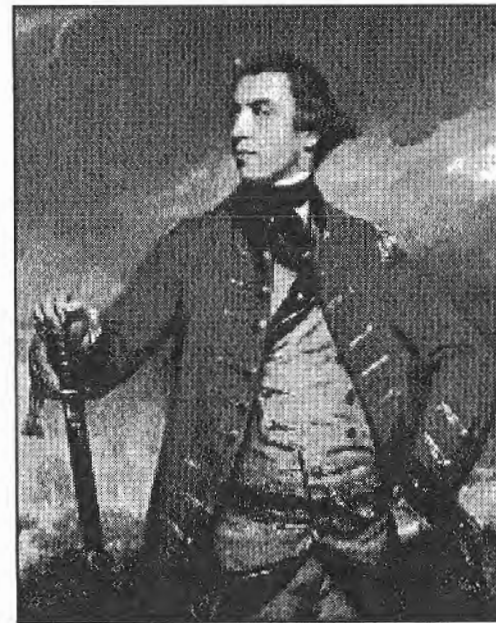
General John Burgoyne led over 7,000 troops against the reduced forces of the rebels. It is estimated that St. Clair's men numbered about 3,300; this includes 800 newly arrived untrained soldiers. With few shots fired, Burgoyne had taken Mount Independence. He noted in his journal:

The army worked hard at their communications and got up the artillery, tents, baggage and provisions; the enemy at intervals continued the cannonade upon the camps, which was not in any instance returned.

Fleeing rebels left three southward facing batteries that strengthened the positions of the Redcoats as this was the most likely direction from which Americans would launch a retaliatory attack. Further investigation by the British revealed stores

of treasures: wine, rum, sugar, coffee, chocolate, and dairy products. To Burgoyne's annoyance, fleeing Americans had spiked cannons, driven wood piles into the East Creek making it temporarily impassable, burned several structures, and driven off livestock. Burgoyne, a practical man who disliked waste, found this offensive and foolish.

Gentleman Johnny



Portrait of General John Burgoyne by Sir Joshua Reynolds.

"Gentleman Johnny," as he was called by his men, was not looked upon with much regard by the Americans. They disliked him for more than the fact he was British. Americans thought Burgoyne to be arrogant and ineffectual. Newspaper broadsides proclaimed Burgoyne's weakness for drink and women. The fact that the British general was

the butt of many lewd jokes about his private life must have added insult to Americans' injured pride as Burgoyne defeated

rebel troops. Even the wife of German General Riedesel recorded in her diary stories of Burgoyne's extramarital affairs and his penchant for champagne.

But as a soldier, John Burgoyne (1722-1792) was above reproach. His profession was everything to him. And he generously credited his success to his men. Gentleman Johnny Burgoyne had a reputation for ordering his Regulars to follow his orders to the letter, but it was his fairness and kindness that prompted his men's loyalty. He believed in discussion; when that failed, he used manual labor as punishment and as a way of keeping subordinates in line. He did not approve of public humiliation of even the lowest ranking, meanest soldier. In most of his men, he took pride; they returned his appreciation.

He regularly wrote to his superiors about his men, and often mentioned specific soldier's exploits. In a letter to Lord George Germain dated July 11, 1777, Burgoyne stated:

Mr. Peters and Mr. Jessup, who came over to Canada last autumn, and professed to raise battalions, one from the neighborhood of Albany, the other from Charlotte county, are confident of success as the army advances. Their battalions are now embryo, but very promising; they have fought, and with spirit. Sir Guy Carleton has given me blank commissions for the officers, to fill up occasionally, and with agreement from them is, that the commissions are not to be effective, till two-thirds of the battalions are raised.

This offers great insight into this general in an army

where most commissions were awarded on the basis of status and privilege rather than accomplishment. Burgoyne valued even those of a "lower" station. In short, John Burgoyne was a practiced soldier and excellent strategist, but more important, he commanded with respect. But there was one group he could not deal with--his Indians. "Burgoyne firmly lectured against unnecessary bloodshed," but to no avail (Dowell 1967).

Regarding his dissatisfaction with his "savages," General Burgoyne tried desperately to keep Iroquois troops from pillaging as they went, but with little success. The Indian's disrespect for the civilian population disturbed Burgoyne, who wrote to Lord George Germain:

Your Lordship will have observed, I have made no mention of the Indians, in the pursuit from Ticonderoga. It is not possible to draw them in many respects from the plunder of the place . . . they are indulged, for interested reasons, in all the caprices and humours of spoiled children, like them they grow more unreasonable and importunate upon every new favour; were they left to themselves, enormities too horrid to think of would ensue, guilty or innocent, women and infants, would be a common prey.

Keeping the Indians in line was difficult for Burgoyne who did not practice corporal punishment as was common at the time. There are reports that the Indians often camped away from their European counterparts, that they hunted for their own food, and that they wouldn't even fall in line when ordered



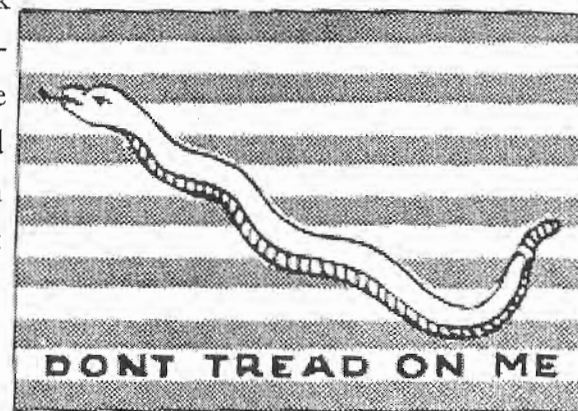
From a painting by E.H. Corbold. Burgoyne's alliance with the Indians caused the American's to retaliate even more after Burgoyne's scouts murdered loyalist Jane McCrea.

to march. Various sources report that the Indians seemed to come and go when they wanted, even to the point of leaving in the middle of battles.

In an incident that is probably the most awful example of unrestrained activities during the Revolutionary War, Loyalist Jane McCrea fell victim to Burgoyne's Indians on her way north to meet up with her fiancé at Mount Independence. She was shot and scalped; her connection to the British and her betrothed, a lieutenant in Peters' Corps, did not deter her murderers. Ironically, the heinous attack on Jane McCrea became a rallying point for American rebels, who used her death as fodder for their propaganda mill. Burgoyne couldn't control his mercenaries, the rebels insisted. They were all in mortal danger.

The Lowering of One Flag and the Raising of Another

Simon Fraser took off in hot pursuit of the American troops as they progressed south through the Grants while Burgoyne sailed up the lake south toward Skenesboro. Fort Ticonderoga was now the temporary home to the German Prinz Friedrich Regiment, while Mount Independence was occupied by the British 62nd Regiment of Foot. Burgoyne left two garrisons of just over 900 men under the command of British Brigadier General Hamilton. Anchored off the Mount to defend the now British possession were two frigates. Ensuing battles took place at Skenesboro, where the British destroyed the American naval fleet, and at Hubbardton. With supplies depleted, the British cut a wide



path to Bennington in August, hoping to find oxen, cattle, and horses. This wide band being cut southward by the British was just one thrust of a three-pronged attack on the Americans.

On July 11, 1777, John Burgoyne wrote to Lord George Germain to inform him of the outcome of this latest siege:



Grenadier, British
Infantry

I have the honour to inform your Lordships, that the enemy, dislodged from Ticonderoga and Mount Independence, on the 6th instant, and were driven, on the same day, beyond Skenesborough on the right, and to Humerton [sic] on the left, with the loss of 128 pieces of cannon, all their armed vessels and bateaux, the greatest part of their baggage and ammunition, provision, and military forces, to a very large amount.

When he received word of the transfer of the two forts, King George III ran into the bedchamber of his wife, screaming, “I have beat them, beat all the Americans” (Dowell 1967). Although this was not quite the case, the British Army recovered a fair supply of artillery and were pleased with their increased fire power, but the number of men left to defend

Mount Defiance, Fort Ticonderoga, and the Mount was a major concern for Hamilton.

For those left on the Mount, there was the thankless job of dealing with the mess left behind by the rebels. The creek had to be cleared of felled trees, large stones, and cannons so that bateaux could bring in artillery and provisions. Two gunboats were positioned in the East Creek to stymie attack from the east. Hamilton had his men refortify the site as quickly as possible. Major General Riedesel, commander of Prinz Friedrich Regiment, supervised the removal of cannons from Fort Ti to the Mount, which became Burgoyne’s supply base. Two blockhouses were built, since there were few such structures left from the brief American occupation. The British settled in.

The British Occupation

Although not involved in the battles of Hubbardton or Bennington, General Hamilton had a new battle of his own to deal with. He found himself in charge of two forts occupied by two very different groups of men, with different values and languages. To their commanding officer’s dismay, the troops fought amongst themselves over provisions.

The various units seemed to look upon the distribution of beef cattle as a sort of free-for-all scramble (Lancaster 1958).

The continued brawling led Hamilton to issue an order that:

no particular regiment has the right to keep cattle, as it is intended to make an equal distribution

throughout the army of all fresh provisions that can be obtained (Lancaster 1958).

But the disagreements continued, probably as a way of blowing off steam since no one was reported seriously injured in all the roughhousing. With tensions running high, Hamilton's men worked hard under adverse conditions.

The buildup of the Mount was not in vain. As Burgoyne advanced to Hubbardton, 300 prisoners were sent first to the Mount, then to a barn near Lake George. The wounded at Hubbardton had to be gathered up by soldiers from Mount Independence, and then brought back to the general hospital at the Mount for recuperation. A total of 34 injured men were treated there, including some Americans. When Hamilton and his troops were ordered to leave the fort, its command passed to General Powell, bringing his 53rd Regiment. The first three months of the British occupation, with the exception of requisite fever and ague, were fairly uneventful and peaceful.

On September 18, Americans, having heard how undermanned the forts were, attempted to retake the Mount and Fort Ti. Despite the heavy blow delivered to the British, the Redcoats hung on. However, the British had forgotten how easily they had taken Mount Defiance when it had been undermanned. American Captain Ebenezer Allen captured Mount Defiance which, because of reduced troops at the forts, had been defended by only a garrison of 13 men. Shots volleyed between Brits and rebels. So desperate was the situation for the undermanned British forts that one Lieutenant Beecroft of the 24th Regiment recruited artificers who had not run away from

the Mount and put them on artillery. Even some of the few hundred Americans imprisoned at Fort Ticonderoga "elected to enter the King's service rather than remain a captive" (Wickman 1993). For five days, a stalemate played out. When Americans asked for Powell's surrender, he informed them that he would defend his charge to the last.

Powell's men managed to continue the standoff with Americans until September 23 when the rebels fell back. In his next communique to Sir Guy Carleton, Powell reported that he never before "saw Troops do their Duty with more alertness and cheerfulness" (Wickman). But the momentary victory did not lull Powell into false security; he asked Carleton for more reinforcements and men, so the Mount could be held until Burgoyne's anticipated return. Time passed slowly as the men waited. For the British, just as for their American counterparts, boredom became an issue. Orders were given that no alcohol could be sold on the Mount. Men were discouraged from shooting their weapons unless engaged in battle. On the Fort Ticonderoga side of the lake, bored Germans made pets of raccoons and other small mammals as a way of passing the time. In a letter written in 1777 by an unidentified German soldier at Fort Ticonderoga, this anxious man lamented, "At no time did the Jews await the coming of the Messiah with greater expectancy than we awaited the coming of General Clinton."

A German soldier chronicled in his journal that, on two occasions on October 17, the British flag that waved above the star fort fell from its mast. It was as if he saw what was taking place in Saratoga: Burgoyne's surrender. Instead of Gentleman

Johnny's triumphant return, word of his disgrace reached Powell. Upon hearing of his commander's fate, General Powell wrote to Carleton asking permission to abandon Mount Independence while he still had the means.

Carleton's cryptic response was: "Prepare with vigour to put the place in such a situation as to be able to make the longest and most resolute defense," he wrote, or "abandon it, with all the stores, while your retreat may be certain." Powell's field officers agreed that without preparation, they could not winter on the Mount. The British remained at Mount Independence until November 8 when the realization that the position was no longer as valuable as it had been (with the capture of Burgoyne's army and the amassed 20,000 Americans at Saratoga), Powell ordered his men off the Mount. Retreating British and Germans set fire to nearly every structure they could. As the men loaded onto bateaux and began their trek north back to Canada, a driving snow began to fall and extinguish the fires. It was only this twist of fate that saved the Mount for future entrepreneurs. Adding insult to injury, Ebenezer Allen's Rangers followed in hot pursuit and did strike a blow against the former dwellers of the Mount at the Bouquet River where forty-nine British were captured, over one hundred horses taken.

Recapture

When Americans returned to the Mount, it was a shambles. Burgoyne probably would not have been happy to know that his men had burned all the structures, spiked cannons, sunk

artillery in the lake, and so on, as the once-retreating Americans had done, but he likely understood their frustration and desire for revenge.

It is no wonder that this time is labeled the turning point of the war. The British would not stand as strongly again.

We were there . . .

The Loyalist Voice: The Pennock Boys

We often look back on history as important events, great people, dramatic change. But we should remember the less-well-known individuals behind the stories. They carried out General's decisions; they lived or died. They missed their families; they were cold, sick, tired, happy . . . Too often history books overlook these people who are as important as the "larger picture." We find documentation detailing how battles were planned. But who fought? Why? How did they feel about their cause? Did they make it home alive?

Peters' Corps, a Loyalist regiment assembled in Canada, had in its ranks eight brothers and the son of the eldest brother, nearly all the males in the Pennock family. In the Revolutionary War, they fought for King and honor.

First Family

"Let it be remembered that this family was the first that broke the soil in this town, 1768" (the tombstone of Thankful and James Pennock, Sr.).

In the close community of Strafford in the New Hampshire Grants, James Pennock, Sr., was Justice of the Peace; his eldest son Jamie was coroner, and Samuel, his second son (whose name was written Sam'l to avoid confusion with his

namesake--his grandfather), was county surveyor. The Pennock family was loyal to England and their king. They had led a comfortable life, but by 1775 their world began to fall apart. The Pennocks watched quietly as their rebellious neighbors, many of whom called themselves "Sons of Liberty," became more vocal. The Loyalist Pennocks managed to keep their land and positions but became isolated by their neighbors. James Sr. hoped his friends would support the king because he feared the Continental Congress was leading the colonies toward unseen danger. The colonies would be vulnerable if they split from England, Loyalists reasoned.

Revolution Comes to Vermont

Widespread acceptance of the Declaration of Independence put the Pennocks in an awkward position as men were summoned to fight against the British. Jamie was a captain in the local militia, Sam'l a lieutenant, and Jesse and Aaron, sergeants. Until 1776, their regiment had been part of the colonial organization of Gloucester County, under English law, intended to defend against attack. But now the attacker was England. Unable to align themselves with the rebels, half of the militia had simply not shown up for muster. It is estimated that

in this war a third of the colonists supported independence, a third were for the king, and a third remained uninvolved.

Outfitted in civilian clothing and carrying his own weapons, Aaron had shown up for duty, but he was troubled by his divided loyalties. He was selected to lead a reconnaissance party north down Lake Champlain to discover British positions. His group approached from the east and arrived on the shore across from Fort Ti to find it and the new fort Independence taken by Redcoats. Aaron longed to join the victorious Brits, but turned back south with his scouts. On the return, they passed through Hubbardton and became embroiled in battle. One has to wonder for which side Aaron fought. Did he try to kill the British with whom he sympathized or Americans for whom he marched?

When Aaron returned to Strafford, he found his brothers had refused to swear allegiance to the new revolutionary government. Aaron shared the news that Burgoyne had taken Mount Independence and Fort Ti. The brothers had heard that an American refugee in Canada, John Peters, had been commissioned by Gentleman Johnny Burgoyne to raise a regiment of "all good Englishmen to the cause of the crown" (Huntington 1976). Realizing they had to make a choice, the Pennock boys made their way to Skenesboro (today Whitehall, NY) and General John Burgoyne.

Choices Are Made

In the fall of 1777, colonists wanting independence fled, hearing rumors of Burgoyne's murderous, pillaging troops. Loyalists, too, packed up and left in droves. Herman (age 13), the youngest Pennock brother, and his teenaged cousins helped evacuate the women and children of the family. They headed east to the Connecticut River. Left behind were the family patriarch and matriarch who, believing they were too old for the journey, stayed to sell their lands to raise funds for the British cause. During this turbulent time, as many as 100,000 Loyalist refugees left the colonies or were expelled, a significant proportion of the population. John Adams estimated the number of colonists fighting alongside the British to be half the number under General Washington (Plaut 1996).

Queen's Loyal Rangers

John Peters, of Bradford and Moreton, VT, had enjoyed a career as a delegate to the First Continental Congress in 1774. He was a wealthy landowner, and a devout Episcopalian who was loyal to the king, even to the point of risking imprisonment. But when pressed by neighbors and threatened with losing his property, Peters joined Allen's attack on Quebec. In Canada, Peters had another change of heart and deserted to join Burgoyne in 1776. A persuasive speaker, Peters showed a talent for rallying men, and though he was a colonist, General Simon

Fraser made him a lieutenant colonel in the Queen's Loyal Rangers. The Rangers were outfitted with red coats faced in green. Their round black, broad-brimmed hats, worn jauntily to the left, featured plumes. They were a paid force, and received regulation equipment and ammunition from the regimental quartermaster. John Burgoyne charged Peters with amassing other Loyalists into an American regiment fighting for the Crown. Peters rose to the challenge.

By August 1777, 600 loyalists from Vermont, New Hampshire, and New York had joined Burgoyne and the Queen's Rangers, 300 in one month alone. Peters wrote to Burgoyne that eight brothers and a nephew had come to his regiment. In fact, 30 men had marched from Strafford and Thetford to form a Tory regiment. Burgoyne, true to form, wrote back to Peters with glowing praise for Peters' Corps. Jamie Pennock, at 47, was made captain. Sam'l was lieutenant, Aaron and Jesse sergeants, Peter, clerk of the corps, and Oliver, Willie, Jeremiah, as well as Jamie's 19-year-old son Alexander, privates.

Relation Within the Ranks

It's clear Peters cultivated great favor with Fraser because Americans, even the most steadfast Loyalists, were not given command positions. British tradition dictated that commissions came with wealth and status. Yet Peters had impressed Fraser during the taking of Mount Independence when he'd

forged across the floating bridge. It was an honor for him to be given a commission on merit. No longer viewed as a servant like Hessian mercenaries and their officers, Peters was a British officer.

Captain Jamie Pennock, because of his rank, was included in Peters' intimate circle. Jamie was described as honest (Huntington 1976), and he was close to Peters' age. They had much in common, including sons in the military; they became friends. It is interesting that Peters was an officer, he probably didn't socialize with British or German officers; nationality, language, status divided officers. John Peters realized that he would never be given true consideration by Burgoyne. This was all too clear when Burgoyne did not punish an Indian scout who had killed the fiancée of one of his officers despite Peters' insistence that the culprit be held accountable (American Heritage Book of the Revolution 1958).

Bennington

Legend says that Peters urged Burgoyne not to send troops to Bennington. John, a Vermonter, knew his neighbors' defense of their property would lead to an ugly battle. Peters felt it was too much of a risk so soon after the costly victory at Hubbardton. But provisions were low and men were receiving half-rations, so Fraser's Queen's Loyal Rangers and Riesdesel's Germans marched to Bennington.

"The Ranger detachment, under Colonel Peters, was ordered to defend an advance post across the Wolloomsac River" (Huntington 1976: 36). Ironically, Peters was bayoneted by his wife's cousin, a rebel, before killing his relative in battle. Still he led his Corps and ordered them to stand fast. When it became clear that the English had no hope, Peters' men fell back alongside the Germans, and eventually retreated to join the main army. Willie Pennock had to be carried out by Aaron, after being shot in the leg and hand. His injuries were such that he could not reload, but he was kept in service because he could still wield a sword.

The defeat at Bennington had a demoralizing effect. British Regulars blamed the poor skills of the Loyalists. Loyalists, in turn, shifted the blame to the decimated Germans, claiming that no one could fight effectively in such pompous and confining uniforms. With September here and frost settling in the evenings, Peters urged Burgoyne to return to the Mount to winter. Peters recalled its bunkhouses and longed for a break from sleeping in the field. But the delay of the previous winter in Canada drove Burgoyne on toward Albany, an act which severed communication with Canada and Carleton.

Saratoga

The first battle of Saratoga, on September 19, 1777, was fought on the fields of John Freeman, a Loyalist who had abandoned his lands and gone to join the British invasion forces. The British managed to hold the line but losses were great.

Burgoyne ordered his troops to entrench at Freeman's farm and wait for Clinton who was advancing from the south (New York City) toward Albany. The men dug in and waited for three miserable weeks for reinforcements that never came.

Throughout the wait, Peters and the Pennock brothers spent time together reminiscing over their homes and lives in Vermont. Jamie Pennock took to reading aloud from the prayer book brought from England by their grandparents. When spirits were at their lowest, on October 7, General Fraser ordered the Queen's Loyal Rangers to move into the woods with Canadian troops and Indian scouts to investigate.

Without warning, Dan Morgan's American regiment, arose and fired. Advancing at the side of John Peters, Jamie Pennock was shot through the chest. Jesse was felled by a musket ball to the head. He died instantly. The Queen's Rangers found themselves badly outnumbered by Morgan's troops. Half of the Rangers fell in the first few minutes of the exchange. For more than an hour, shots were volleyed until Oliver and Jeremiah ran out of ammunition and could do little more than crouch behind trees as their comrades fought around them. Their nephew Alexander was injured in the battle. The Pennocks are representative of the devastation Peter's Corps suffered that day.

When Morgan was convinced the enemy was beaten, he withdrew and let the Rangers collect their fallen. It was discovered that Willie, too, had been shot and killed. Jamie had been severely wounded, but he survived the day. However, General

Fraser had been fatally shot. The invasion forces were in utter chaos and there were no reinforcements in sight.

British soldiers dug a common grave for the dead. Peters, however, insisted that his friends, Jesse and Willie Pennock, be buried separately. So the Pennock brothers undertook the task. Their grief was compounded the next day when Jamie died. Peters led the prayers at the funeral for his captain and friend. Jamie was buried as Simon Fraser was laid to rest across the river.

The End of Peters' Corps

Burgoyne's orders came quickly. Disband the troops. Men could go to Canada and regroup, but those choosing an alternate course would not be called deserters. Peters decided to return to Canada, leading a rag-tag bunch of about 90 men north back to Mount Independence. His group included Jeremiah and Sam'l Pennock. They arrived on the Mount to participate in the November destruction of weapons, provisions, and buildings. Aaron, Peter, Oliver, and Alexander returned to Strafford. Sam'l never returned to America; he was granted land in Ontario for his loyalty to the Crown. Jeremiah Pennock was killed in battle in Canada in 1778.

But some of the Pennocks could not turn their backs on their homeland. In 1780, Peter, Oliver, Aaron, Herman, and Alexander Pennock joined the Americans and fought for the independence of the colonies. In spite of some neighbors' dis-

trust, the Pennocks offered their services in defense of Royalton. It is doubtful that their change of heart came from a sudden interest in American independence, but rather a desire to protect what was left of their personal property. Whatever the motive, the Pennocks remained in service to the Colonial Army until the end of the war. Eventually each was accepted by the community and again held positions of authority before their deaths.

Full Circle

John Peters went full circle in the story of the Mount. Among the first of the British Army to set foot on the floating bridge, and among the last to leave its shores, the story of Peters and the Pennock boys reminds us that the Revolution was more than a war against England. It was a civil war that saw Americans divided. Endlessly loyal in his devotion to king and country, John Peters died in Canada in 1788, exiled.

We were there . . .

Mercenaries: The Riedesels' Life and Times

From 1776 to 1783, approximately 30,000 professional soldiers from the six German states served in the American colonies, in support of the British army. (This equals about 25 percent of able-bodied German males.) They were highly trained “guns for hire” who considered their tours of duty in the New World a job like any other. Most of these Germans came from Hesse-Cassel which gave the commonly but often incorrectly used name Hessians to these soldiers known for their elegant uniforms and military skills. Among them was Friederich von Riedesel.

Because Great Britain had a small army at the start of the conflict in the colonies, the British had no problems with hiring soldiers from abroad. Most officers in the British army were from the upper class and more

than accustomed to using servants to achieve goals. The German troops were seen as employees, nothing more. A few Germans, however, showed great skill, loyalty, and distinction in battle, and these men were rewarded with commissions. It is, however, important to note that a British captain was still viewed as having higher rank than his German counterpart.

Many German regiments had originally formed to defend the territories of the 300 hereditary princes in Germany. In the 1770s, what is today Germany was fairly peaceful, so many of the Princes' Regiments found themselves unemployed. War was war, whether it was fought on home soil or somewhere else, so the Hessians came to America. Because war was their business, many soldiers' wives and children accompanied them

to America and followed the troops on the march. A famous example of this is the wife of Major General Friederich von



The Germans going off to war in America. Dover Publications

Riedesel, a lively and attractive young woman who sailed to Canada with her three little children so the family could be together.



Friederich von Riedesel was born into one of the oldest and richest families in Germany. Friederich was well educated, attending law school until he was exposed to military life at a garrison near his school. Riedesel dropped out of school to take up the sword, much to his father's chagrin. The eager soldier rose quickly to a commission, likely due in part to his family connections and wealth, but also because he was an excellent military man. He was in English service near London until 1756 when the Seven Years' War broke out in Germany. It was during this war that Simon Fraser and Riedesel served together and became close friends. When Riedesel was overlooked for a promotion in 1761, he resigned and went to the Black Hussars and became a lieutenant colonel. In battle, Riedesel was a dedicated soldier, who in spite of receiving wounds maintained command and distinguished himself on many occasions. "Riedesel possessed all the qualities of a good and brave soldier. To coolness and discretion in danger, he united that quickness in action which he always knew how to exercise at the right moment" (Stone 1867).

Frederika von Massow was the attractive daughter of a baron who opened his home to many up-and-coming young officers. Friederich became completely smitten by the girl when they met in 1759. Their relationship blossomed, mostly through letters, as the young soldier was often away. In 1762, Riedesel married the beautiful sixteen-year-old Frederika. Fritschen, as she was affectionately called, made an excellent officer's wife, taking great interest in her husband's regiment, his

career, his ambitions. When the Black Hussars were disbanded in 1767, Riedesel was made adjutant general of the Brunswick army. When England entered into war in 1776, 4,000 Brunswick troops were hired to beef up British strength. Riedesel sailed in March 1776. His wife and two daughters remained in Germany where his third child was born after his departure. Friederich wrote on November 10, 1776, "I embrace you and our dear children, and coax myself into the belief that you will certainly come next spring."

The two were separated for over a year until Fritschen brought her girls on an arduous journey to Canada. She arrived in June as her husband was setting out with Burgoyne on their doomed attempt to cut off New England from the rest of the colonies. Her diary discusses in great detail the dreadful trip to Canada: "*the men were all sick. I alone had no time to be so, for my servants were nearly the sickest of all, and I was, therefore, constantly called to wait upon my three children*" (Frederika von Riedesel, April 1777). But as uncomfortable as her journey may have been, for the family of the common soldier, it was infinitely worse. It is known that as many as seventy-seven other wives accompanied their husbands throughout this difficult time (Stone 1867); one can only guess at the number of children. There were no luxuries for the traveling wives of the enlisted men; they simply could not afford them.

The German troops were not very well compensated; provisions were in short supply. The lack of food and healthy transport animals was a major reason for the failed assault on

Bennington. Germans, who often found themselves without basic necessities, were not above taking what they wanted. American newspapers published stories of atrocities, rape, and mayhem; Burgoyne himself angrily reported to Sir Guy Carleton when his Indian mercenaries took liberties with civilian property, were undisciplined, or caused other mayhem. There are not many British reports of such unseemly behavior by the Germans. Clearly, some soldiers in the British army committed atrocities, as when Burgoyne's Indians murdered Jane McCrea, but it is important to remember that warfare included rape, random destruction of property, and looting.

For the most part, the Germans fought hard, although their spirit is said to have not been as strong as that of the Loyalists, though this makes sense. The war in America held no personal stake for most of the Germans. When the Germans were ordered to assist with removing the wounded from Hubbardton to Mount Independence, they did so with haste. The mercenaries were, overall, efficient soldiers. When the Germans camped at Fort Ti were ordered to transport weaponry to the British who were at the Mount, it was done. Men from both regiments built blockhouses at the Mount, drilled interminably, and battled boredom as they waited for Burgoyne to return down Lake Champlain. Riedesel himself went on reconnoitering expeditions.

Frederika von Riedesel's journal documents the hardships of the Germans, enlisted man and officer alike. For example, she reported at Saratoga,

... I had scarcely got back to my quarters when I heard skirmishing, and firing... It was a terrible cannonade, and I was more dead than alive... About three o'clock in the afternoon, in place of the guests who were to have dined with me, upon a litter, poor General Fraser, mortally wounded... I heard him often, amidst his groans, exclaim, 'Oh, fatal ambition! Poor General Burgoyne! My poor wife!' I could not go to sleep as I had General Fraser and all the other gentlemen in my room, and was constantly afraid that my children should wake up and cry, and thus disturb the poor dying man who often sent to beg my pardon for making me so much trouble.

After Burgoyne's surrender at Saratoga, Riedesel was taken prisoner and "endured" an imprisonment in the home of General Schuyler where he and his family feasted and rested. Despite gentle treatment, General Riedesel was disheartened and, it is said, never experienced great joy again in his life. Riedesel, Fritschen and the little girls traveled rather extensively in the colonies until the General was returned in a prisoner of war exchange in 1780. The fourth child of Friederich and Fritschen was born in the United States and appropriately named Amerika. A fifth daughter, Canada, born in 1782, died after only five months, and was buried in Sorell.

General Riedesel's legacy is a conflicting one: he was a life-long military man who was willing to fight for profit, a loving and devoted family man, an officer whose advice was often ignored by superiors who could not completely accept him as an

equal. If we are to believe his wife's diary and his own letters, he tried to sway Burgoyne from a destructive path but his words went unheeded. Of all the Germans who went to America, 7,000 were killed, 5,000 deserted and never returned home. And then there was the personal toll taken on the Riedesel family.

After his military career ended in 1783, Friederich continued to actively participate in community life and became the commandant of Brunswick in 1794. He did not appreciate the pomp and circumstance that came with the position, and it is likely too that he simply had lost heart after his failure in America, but Riedesel never again enjoyed good health. He died at 62 in 1800.

In her lifetime, Fritschen bore nine children. She, too, died at age 62, in 1808, and was outlived by several of her children, but sadly, her grandchildren did not have children, so the Riedesel line ended with their deaths.

Objective:

To track an artifact making geographic and historic connections

Target Ages:

Grades 3-8:

Class Orientation:

Teams

Time Needed:

20-45 minutes

While at the Mount:

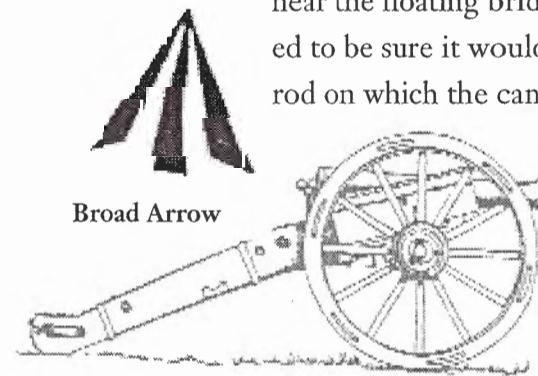
Find the Essex Cannon in the Museum. Look at its markings. What information do they convey? Look for the broken trunnion. Why do you think it was broken off? Why didn't the British take the cannon with them when they retreated from the Mount?

The Essex Cannon: Where in the World?

Introduction:

The British surrendered at Saratoga and, for the moment, the Redcoats seemed to be floundering. Caught without orders at Mount Independence, the retreating garrison set fire to its structures, spiked cannons, destroyed gardens, and threw ordnance (military supplies such as cannons and artillery) into Lake Champlain. Among the weapons deliberately damaged and discarded was a 12-pounder cannon marked with a broad arrow, identifying it as British. This cannon, nearly 10 feet long, had its right trunnion broken off before it was plunged into the lake

near the floating bridge. It is clear that whoever discarded the cannon wanted to be sure it would not be of military use again. A broken trunnion (core rod on which the cannon rotates) made it almost impossible to remount the



cannon or aim it accurately. The discovery of this cannon and its removal from Lake Champlain would have been enough for an interesting tale of the Essex Cannon. It is far more exciting; it is a lesson in geography, in fact.

Cannon Number 7547 (its unique registration number) was made in 1675 by John Browne, Jr., the Royal Gunfounder to King Charles II. It is a Rupertine gun, a highly effective cannon, which cost 60 pounds per ton to produce. This made "7547" one very expensive weapon, since most cannons cost between 16 and 20 pounds per ton. The Rupertine guns were manufactured from the early 1670s until Charles II's death in 1685 (McLaughlin 1977), and although they were accurate and light, they were prohibitively expensive, so their usefulness was overshadowed by their cost. But Charles II considered Rupertine guns worth the price; made from recycled iron cannons, they were made from a finer grade of iron that was stronger and lighter than other guns.

Whispered Echoes from the Mount:

The only living creature (except the paper messengers) who approached it [the Mount] after Sept. 18th, was a poor strayed Cow, that in the night of the 21st being a thick fog, caused a general Alarm; and a most thundering cannonade from all quarters of the Mount and from all the vessels ensued, which continued almost without intermission till day light, when the lawless plunderer [the cow] who had been so daring, was taken prisoner and carried into the garrison in triumph.

(John Starke, 1777 in The Starke Papers, Fort Ticonderoga, on what must have been a tense night of "warfare")

In 1679, after four years in an arsenal, "7547" was first used on H.M.S. Essex., a 70-gun ship that sailed the world. The Essex was involved in battles in Spain, Italy, France, and Sardinia (McLaughlin 1997) and sailed the Mediterranean, North Sea, Atlantic Ocean, the Caribbean and Gulf of Mexico. "7547," while on board the Essex, visited Florida, Africa, Brazil, Estonia, and America between 1679 and 1739 when the cannon was removed from the ship and decommissioned for land use.

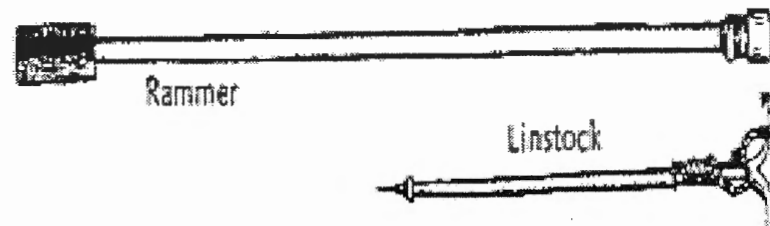
In spite of its age, the cannon was in excellent condition and remained in service to wind up at Mount Independence where it eventually found a watery resting place beneath Lake Champlain. It was discovered by representatives from the Lake Champlain Maritime Museum during the 1992 - 1993 underwater archaeological survey of the lake between the Mount and Fort Ti. No longer hidden in the lake, it is prominently displayed in the Visitor Center at Mount Independence.

Activity:

- Divide class into teams for this geography and history challenge. Let students use encyclopedias, dictionaries, history books, the Internet, and other resources to help them "snoop out" the answers. After geography lessons, teachers can adapt the questions to suit their curricula or follow the questions here for suggested topics. As a pre-teaching activity, teams can be asked a question and then sent to find the correct answer. Use a cannon diagram score card for teams - let them color in one wedge of a wheel for each question correctly answered.

Sample Questions:

- 1) What country did King Charles II rule?
- 2) When did Charles II rule?
- 3) Where is Estonia?
- 4) What is Sardinia called today?
- 5) Match the country with the continent - Brasil, Estonia, Italy...
- 6) Match the body of water with its type (sea, ocean, lake, river, etc) - Mediterranean, Caribbean, Baltic, Atlantic, East Creek, Champlain...
- 7) What is a 12-pounder?
- 8) Draw the Broad Arrow.
- 9) How many trunnions does a cannon have?
- 10) Explain the function of the items in the picture.



Objectives:

- To follow directions and steps in a process
- To learn and practice teamwork.

Those Hard to Find Materials:

- American troops.
- Gun powder charges
- Rammer
- Hand-spike
- Linstock
- Ball projectiles
- Fuses or portfires
- Fire source (probably flints and steels, but when possible, a contained small fire is helpful)
- Drag ropes to hold cannon in place while firing
- Bucket for water
- Horses to pull the cannon
- Lint or rag to stuff into your ears
- A crew of 8 - 15 men depending on the size of the cannon and the number of horses to be kept calm during the firing.

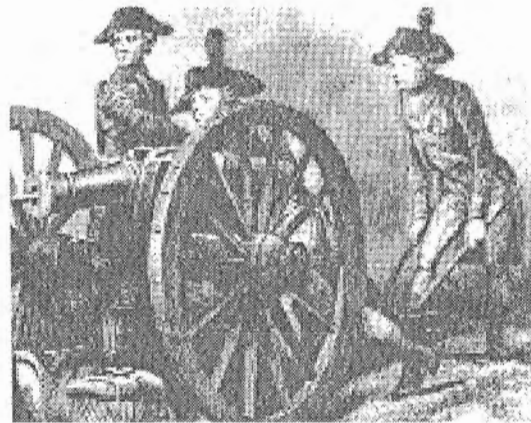
Optional:

- Oak tag

A Dying Art: Manning A Cannon

Activity:

- Select a team to fire a 12-pounder like the Essex Cannon. You will need up to six very strong soldiers who can position and hold the cannon steady while it's being fired. One team member must clean out the cannon barrel between each shot; another holds his hand



over the vent hole in the cannon while it's being prepared. Separate soldiers place ammunition in the barrel, fire the charge through the vent hole (this can't be done by the same person as the one who covers the vent hole because it must be done so quickly), have water handy to put out the fire (and light the next fire), aim the gun, get ammunition from a supply cart, hold the horses, and keep an eye on all the equipment.

If your class or group is small, try to figure out how to consolidate jobs so that a smaller team can

effectively wage warfare. Who will lead the team? Who calls the orders?

- Make a mock cannon barrel from a tube made from oaktag. Prop it in position and practice drilling as an artillery team. Remember that speed is as important as cooperation and accuracy.
- Walk the grounds around your school. Imagine that your artillery team is ordered to protect the school from invading forces. Where would a cannon have the greatest effect in this mission? Keep in mind problems of soft ground, rocky terrain, blocked vision, hidden perils, trees, low ground, and so on.

Whispered Echoes from the Mount:

*...we soon Spy'd or
[our] Enemy in
Batteaus a Crossing
the Lake, we Gave
them few shotts with
our Canon, & Good
shots they was for I
Believe they kill'd
some of them [the
enemy].*

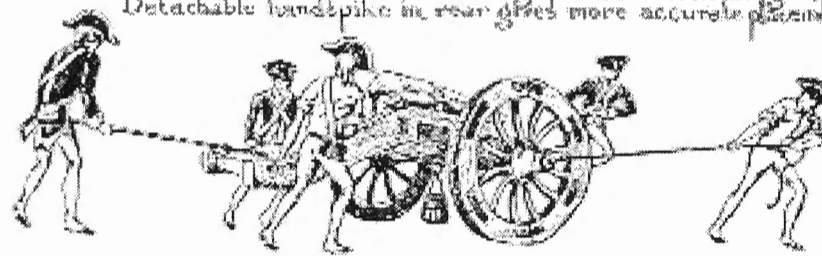
Timothy Tuttle's Journal entry,
October 28, 1776 (In Museum Kit)

While at the Mount:

Find out where cannons were placed to defend Mount Independence. What advantages did the locations offer? Why did Americans not place artillery atop Mount Defiance? How did this decision hurt American forces? If you were to place a cannon on the Mount to protect the Visitor Center, where would you put it? Why?

LOADING AND FIRING THE CANNON

1. Cannon crew hauls the piece into firing position with drag ropes. Detachable handspike in rear gives more accurate placement.



2. Surveyor's quadrant shows elevation by plumb line against scale arc. The elevating screw adjusts barrel to the proper angle.

3. Worm cleans bore of rollers from previous firing.



4. Wet sheepskin sponge extinguishes sparks and cleans the bore.



5. Bag of powder is rammed down barrel.



6. Cannon ball or bag of grape shot is rammed to powder.



7. A brass pick is slipped down the vent to break open the powder bag.



8. Powder horn prunes vent hole with powder.



9. Fire! Slow match on the tinstock ignites priming.



From The Revolutionary Soldier 1775-1783, C. Keith Wilbur

Objectives:

- To interest students in the art of letter writing as a viable form of interpersonal communication
- To promote class cohesion

Target Ages:

Any student who can write (even at a beginning level pre-writers might enjoy sharing pictures or dictating letters).

Time Needed:

10-15 minutes a day

Class Orientation:

Individual

Materials:

- Steno or other notebooks
- Pens, pencils

Optional:

- Quill Pen and Natural Ink Activity in Mount As a Little City Chapter

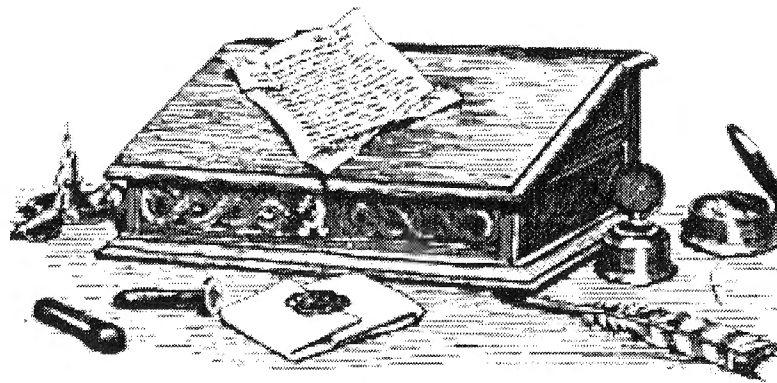
Resources:

(In Museum Kit)



- The Diary of Timothy Tuttle
- Jeduthan Baldwin's Journal

Correspondence: Dialogue Journals



From The Revolutionary Soldier 1775-1783, C. Keith Wilbur

Introduction:

For more than a year, General and Baroness Riedesel were apart from each other, with no telephone to keep them in touch. Yet their relationship continued, as strong as ever. Their third child was even born shortly after their separation. Until Baroness Riedesel sailed from England for Canada, they

corresponded regularly, although his last letter to his wife arrived in England after she had already left. (The post was quite reliable, it seems, since the letter eventually made its way to Canada and into the hands of Baroness Riedesel.) Like everyone else apart from loved ones, the Riedesels shared their thoughts and feelings in letters, and kept track of daily events in journals that they later read together, much the way we might watch a video tape of a past event.

Activity:

- Once a week (or other regularly scheduled time), students spend ten to fifteen minutes writing in a journal. Students may pick topic or teacher can suggest something, but the idea is

Whispered Echoes from the Mount:

As our correspondence can now be conducted with regularity, I beg you to keep for me a kind of diary of what you and the children do daily; and in order that we may know what the other does, I herewith begin mine.

Friederich von Riedesel June 1777

While at the Mount:

In the museum, ask the docents where ink came from? How did soldiers who were marching around all the time carry their writing supplies? Look for journals. Why were journals kept by soldiers? On the trails, look for, but don't pick, berries, clay, bark, and other natural materials that might make good ink. (Cross reference to the ink recipe in the Main Street, Mount Independence Chapter).

for students to write as much as they can in the time allotted. Student may write about things that happen to them, things they see on TV, etc.

- During the next writing period, journals are exchanged and read by another student. The reader responds to the first journal entry, and asks questions as appropriate. The journal is returned to the original author who responds to the second entry. A pair of students act as pals through their journals. It's interesting to share journals from two different classes, or, if possible, two different schools. (When possible, pair a mostly, born-in-the USA class with an English-as-a second-language-class. The results are most enlightening for the students.)

Objective:

To look at "both sides" of a story

Target Ages:

Grades 4-8

Class Orientation:

Individual

Time Needed:

30 minutes

Materials:

Writing instruments

Tory Ballad

Introduction:

Making fun of politicians is nothing new, as this song demonstrates, but this song represents only one opinion. This is a ballad written from the Loyalist point of view.

*"These hardy knaves and stupid fools,
some apish and pragmatic mules,
Some servile acquiescing tools-
These, these compose the Congress!"*

*When Jove resolved to send a curse,
and all the woes of life rehearse,
Not plague, not famine, but much worse-
He cursed us with a Congress!"*

Unknown Author 1776

Activity:

Write a poem or song from the Rebels point of view, praising the Continental Congress.

Hero or Villain: Understanding Point of View

Objective:

To make students aware of stereotyping, and prejudice in cartoons, political satire and propaganda.

Target Ages:

Grades 4 - 8 (discussion can take place in lower grades but written activities will have to be altered or ignored; higher grades can expand topic to include other historic prejudices: Japanese Americans during WW II vs. the image of 1990s Asian Americans, or plantation slaves as portrayed by northern abolitionists vs. southern slave merchants, Noble Savage vs. Indian on the War Path.

Class Orientation:

Whole Class

Time Needed:

15-30 minutes for analysis and comparison, plus time as needed for response.

Materials:

Reproductions of the depictions of the soldiers in this lesson.

Introduction:

During times of peace, prejudices and slanted perception may be disguised. But in war time, or at election time, opponents do their best to make each other seem inhuman, cruel, monstrous, stupid, immoral, and so on. During the Revolution this kind of propaganda was rampant as evidenced by the drawings on the following page. Artwork had a special impact in the 1700s when a large percentage of the population relied completely on pictures for information. Thanks to cartoonists, illiterate adults could glean information about popular sentiment toward politicians.

Activity:

- Using the pictures here, divide the class into groups: the British, the Colonists, Germans, French...
- Give each group one of the pictures and ask them to evaluate what they see based on whose role they are playing. Remaining in their roles, have students debate the accuracy of the pictures. What elements of truth are found in each? What fallacies? What would an impartial sketch look like?
- Ask students to write a broadside (a large announcement or advertisement) expressing their point of view about the hero or villain they perceive the soldier to be.

While at the Mount:

Look at the artifacts collected in the museum. Do we know the origins of all of them? What about the etched bottle? Who do you think James Hill was? What other items are not identified as American or British? Why not?

Whispered Echoes from the Mount:

I cannot forebear picturing to your imagination one of the most pleasing spectacles I ever beheld.

Lt. Thomas Arburey, British Army on the British flotilla as it approached Mount Independence and Fort Ticonderoga.

This disaster has given to our cause a dark and gloomy aspect...

Dr. James Thatcher, Continental Army on the evacuation of the Mount.

Related Activities:

- Find sketches of Indians, Germans, women, and other participants in the Revolution to see how they are portrayed. Look at primary resources and more recent ones. Has the message conveyed by the artwork changed over the years?

- Look at the journals of Timothy Tuttle (**In Museum Kit**) and John von Krafft (or other British or German soldier). What common themes do they share? What activities did they both do? What did they think of each other? What similarities did these enemies share? Why do you think so?



British View of American Soldier

- Write a journal entry about a day in the life of a soldier from both points of view.
- Students may research political satirists such as columnists, cartoonists and comedienne.



American View of American Soldier

Objectives:

- To get students thinking about how small the world is when we can easily communicate with people from another country.
- To understand the value of speaking a second language

Target Ages:

Junior high and high school (although younger students benefit enormously from foreign language study, this exercise is intended more as a decoding activity and will frustrate younger students)

Class Orientation:

Pairs or individuals

Time Needed:

A few class periods or portions of classes

Materials:

- * French-English dictionaries.
- * 101 French Verbs (or similar publication)



Common Goal, Different Language

Introduction:

For the well-educated person in the 18th century, a knowledge of French was as important as the ability to write or do sums. For British General Simon Fraser and German Baron Frederich von Riedesel, the ability to speak French was vital. It was the international language of the age and the languages

in which these two comrades frequently communicated.

Activity:

- Using a French-English dictionary, translate Fraser's letter to Riedesel?
- Why would a German General write to a British General in French?
- Make a code using the exercise on the following page and write a message to a classmate. Can he or she figure out how to decode it? Can he or she write back an answer that makes sense and that you can decode?

*Après avoir transcrit
l'original de mon ordonnance
à Paris, qui, de la même
- des voitures, j'ai
- pour les armées, j'ai
- alades, comme au fort de
- rebuts, j'ai fait faire
- ne, qui sont pour les
- elons, j'ai fait faire
- nper à la hâte, mais
- intelligiblement; et
- nner d'être avec de*

Whispered Echoes from the Mount:

"Brigadier Fraser, with one-half of his brigade and without artillery, met two thousand rebels strongly fortified, attacked and drove them from their position. The latter lost many of their officers. Two hundred were killed, more wounded, and three hundred captured. Major General Von Riedesel, with his advanced guard, consisting of the company of yagers (eighty men), light infantry, and grenadiers, came up in time to support Brigadier Fraser; and by his judicious orders, and the bravery with which they were executed, he, as well as his troops, shared in the honour of the victory."

*Burgoyne in a July 11,
1777 letter to his
generals (Spoken at
Hubbardton)*

While at the Mount:

Look at the museum exhibition for foreign words like bateaux, cannonade, Carillon, and others. What do these words mean? Why do you think the soldiers used French words for these items?

- You are the drill sergeant of a group of new recruits. Because they are German, and do not speak English, and because you are British, and do not speak German, you must give them orders in French. It is unlikely that these under or uneducated soldiers speak French very well, so be patient and try very hard to get your message across. Remember - No English!

Attention! (ah-ten-see-own)

En place! Repos! (ahn plahss! ray-poze!)

Pas accelere! Marche! (pah ahk-sell-air! mar-shay!)

En joue! Feu! (ahn jhoo! foo!)

Allons! Venez! (ah-lones! ven-ay!)

Circulez, s'il vous plait. (seer-coo-lay, see voo play)

Ecoutez-moi! (ay-coo-tay mwah)

Essayez-moi! (ess-say-yay mwah)

Il feut faire des devoirs. (eel foe fair days duh-vwarz!)

Venez a la popote! (ven-ay ah la poe-pote)

Attention!

At ease!

Quick march!

Ready? Fire!

Come on!

Dismissed!

Listen to me!

Help me!

You must do your chores!

Transcription of the letter sent on July 10, 1777 from Simon Fraser to Friederich Riedesel:

10me Julliet 1777

Mon cher Monsieur:

Le General veut absolument que les blesses sont transporter a Ticonderoga, Il m'a ordonne de vous dire, qui, si cela ne va derangere pas, il voudra que le nombre des voitures suffisantes pour meme porter les arms, baggages des des (sic) malades, Comme aussi les armes des Rebels fuient fournir au Mayor Skene, que vous montrera ses instructions, Elles sont ecrites, un peu a la hate, mais j'espere inteliblement; j'ai l'honneur d'etre avec les sentiments de Respect le plus profond, Mon Cher Redeisel

Votre ami et fidel serviteur,
Simon Fraser



Translation:

July 10th, 1777

My dear sir:

The general definitely wants the wounded taken to Ticonderoga. He has ordered me to tell you that if it doesn't cause too much trouble, he would also like a number of carts, sufficient to carry the weapons and equipment of the wounded, as well as the weapons of the Rebels who have fled to supply Mayor Skene, who will give you instructions that were written rather quickly, but, I hope, legibly. I am honored to have feelings of the deepest respect for you, my dear Riedesel

Your friend and faithful servant,
Simon Fraser



10^{me} Fev. 1777

Mon cher Monsieur

Le General veut absolument
que les bleds soient transportés
à Ficoatragan, il m'a ordonné
de vous dire, que si cela ne se
dérangera pas, il voudra que
l'entrepreneur des voitures suffise
pour transporter les arm. & bagg.
des malades, comme aussi les
armes de fusils pourant fournir au
Major Thorne, que nous manquons
des instructions, elles sont
écrites, un peu à la hâte, mais
sont indispensables;
J'ai l'honneur d'être avec de
l'assurance de respect & plus
profond, Mon cher Monsieur

Voire amant fidel. serv.
L^{on} M^{on} M^{on}

Stambridge 10 July 1777 — Letter from General Simon Fraser to General von Riedel
translating Burgoyne's orders after the BATTLE OF HUBBARDTON (7 July 1777)

Objectives:

- To learn how styles have continued throughout history.
- To think about alternative ways that people dealt with cleanliness and health issues.

Target Ages:

Grades 4-8

Class Orientation:

Individual or full class

Time Needed:

One class period

Materials:

- Old pair of tights or stockings
- Plastic bag
- Cotton batting
- Pencil
- Glue such as elmers

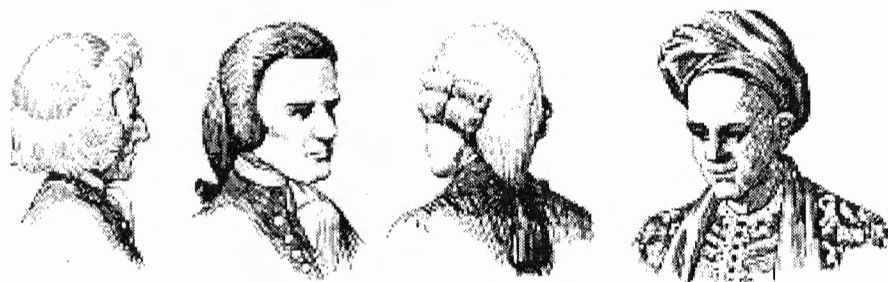
Only Your Hairdresser Knows

Perukes & Wigs....

Introduction:

While it has been pointed out that colonists did not consider personal hygiene as important as we do today, people had their vanities as we do, and appearance was important to them. This is especially true of the upper class. No well-dressed man in the 18th century was without a coif. For special occasions or “white collar profession,” men displayed shockingly white hair, curled, rolled, and piled atop their heads.

Women, too, were fond of such finery. American women curled, crimped, and arranged hair into elaborate fashions, sometimes with flowers, lace caps, feathers, or other items woven in. The American custom in no way compared with the outrageous hair fads of European courts, particularly the French, where one woman came to a party with a bird cage



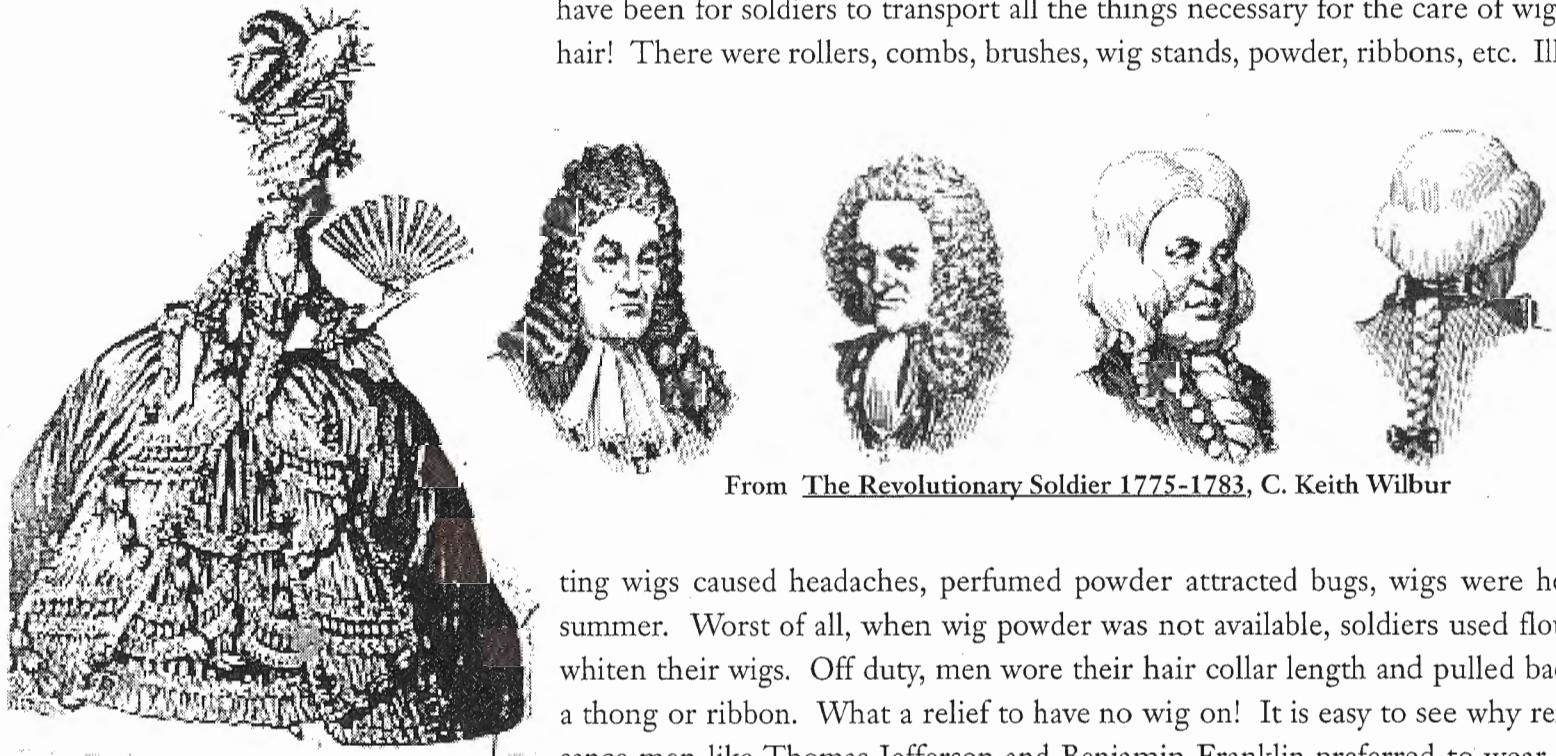
From The Revolutionary Soldier 1775-1783, C. Keith Wilbur

on her head and a live bird inside! Adults were not the only ones to wear wigs; children, also wore them. Wigs were made of human hair for the very rich, and goat or horse hair for the common person. Some wigs were even made of cow tail. A perruque or peruke (periwig) maker purchased hair from clients, both living and dead, for his more expensive wigs.

The more important a person was, the larger his wig. This is the origin of the expression, “big wig.” (Although sometimes a large wig was worn by someone who thought he was more important than he was.) But did you know that it was, in fact, quite common for 18th century gentlemen to have no hair at all? Since their station required them to wear wigs, it was easier to have no hair to fuss with. Wigs were enough work! This is why many drawings of the time

depict men wearing bed caps to sleep. Without hair or central heating, bald heads got cold quickly. Women were less likely to shave their heads (though in France it was rather popular for a fashionable lady wanting her wig to fit properly).

British officers and soldiers on duty were required to wear wigs if they had them. If not, hair was powdered to achieve a pristine white and, theoretically, clean look. Wigs and powdered hair were part of regular dress uniform. What a pain it must have been for soldiers to transport all the things necessary for the care of wig and hair! There were rollers, combs, brushes, wig stands, powder, ribbons, etc. Ill-fit-



From The Revolutionary Soldier 1775-1783, C. Keith Wilbur

ting wigs caused headaches, perfumed powder attracted bugs, wigs were hot in summer. Worst of all, when wig powder was not available, soldiers used flour to whiten their wigs. Off duty, men wore their hair collar length and pulled back in a thong or ribbon. What a relief to have no wig on! It is easy to see why renaissance men like Thomas Jefferson and Benjamin Franklin preferred to wear their hair as nature intended, wig-free.

Whispered Echoes from the Mount:

*She made "a droll
figure of a young
lady in or under,
which you please, a
tasty head Dress."*

The Diary of Anna Green Winslow:
A Boston School Girl of 1771.

While at the Mount:

Examine the portraits in the museum. Who wears a wig or powders his hair? Why do you think so? Does the appearance make him seem more important, responsible, or older?

Make Your Own Peruke:

- Cut bottom off tights and fit over head, gathering top and securing with rubber band
- Remove cap and place back on head with plastic bag underneath to prevent glue from getting in hair.
- Cut a batting strip about 12" wide x 24" long. Have someone help you glue to your cap, placing small dots of glue along front of batting. Make two cuts along each side of the batting just behind ears. Using a pencil or wig curler, curl up the sides and glue them to hold curls. Tie the remaining batting in the back with a ribbon.



Other Activities:

- Peruke makers were always looking for perfect hair (white hair, straight, etc.) for their wigs. If a wig maker were to pay two shillings per inch of hair, who in your class would make the most money from the sale?
- Women commonly wore mob caps. Why do you think so? Would farmers wear wigs when they worked? Why or why not? What kind of wig do you think merchants wore?

6

“Determined to Take Post on a Hill”

**Engineering Feats at
Mount Independence**



“Determined to Take Post on a Hill”

Engineering Feats at Mount Independence

In July 1776, following the defeat in Canada, the American army began to construct batteries on Mount Independence. In spite of foul weather, low supplies, poor morale, and sickness, the American effort at Mount Independence triumphed. Most of the military goals were accomplished by the determined Northern Army in only a few months.

The variety of engineering feats at Mount Independence is truly incredible—from typical earthenwork batteries to a gigantic crane for lifting cargo and supplies up a 200-foot incline; from a central, picketed fort to a 12-foot-wide floating bridge crossing Lake Champlain; from block-houses made of native materials to one of the largest hospitals in the Northern Army.

What is even more incredible is that these feats were accomplished in the short span of one year, impeded by a severe Vermont winter, inadequate food and clothing, and a limited supply of tools. The two creative engineering minds responsible for most of the structures, Jeduthan Baldwin and Thaddeus Kosciuszko, are considered by many historians as geniuses in their field.

This chapter includes activities that challenge students of all ages to develop critical and creative thinking skills useful for real-life applications. The hands-on engineering projects help integrate visual arts and problem solving into core subjects such as social studies and math as students are encouraged to explore alternative solutions and designs.



Chief Engineer Colonel Jeduthan Baldwin and the Corps of Engineers

If we could go back in time to Mount Independence in the winter of 1776, perhaps we would notice the silhouette of a figure scurrying across the swaying footbridge connecting the Mount to Fort Ticonderoga. Looking closer, we would recognize the figure with the hurried stride and rolled papers under his arm as Colonel Jeduthan Baldwin, chief engineer to this northern post. He would not be able to recount his countless trips between headquarters at Fort Ticonderoga and the new fortifications he was in charge of building on the rugged scrap of land across the lake. One of his first engineering feats was the narrow, floating footbridge, necessary for faster communication between the two sites. Speed was imperative; no one knew when the British would return. One day, after the ice had broken from Lake Champlain, General John Burgoyne and his army would be upon them, and they must be prepared.

Baldwin was considered a brilliant engineer. His ability was well proven at Bunker Hill and throughout the Boston area, where he constructed bridges, cannon platforms, and batteries. Now he was assigned a monumental task--creating defensive fortifications on a rocky promontory along Lake Champlain, and having it done "by yesterday." He wrote in his journal of July 28, 1776, "have direction of All House and Ship carpenters, smiths, armourers, rope makers, wheel and carriage makers, miners, turners, coalyers, sawyers, and shingle makers, in all 286."

He provided protective fortifications for the sawyers and ship builders at Skenesboro (Whitehall), New York. He



also built a hospital and barracks for 1,000 men surrounded by a star-shaped fortification, designed a crane to lift equipment from the shoreline below the Mount, and constructed two bridges. One bridge, 12 feet in width, was secured to caisson pilings sunk through holes in the thawing lake ice. He also laid out plans for an artillery park at Mount Defiance, which, if built, would have likely changed the fate of Fort Ticonderoga and Mount Independence, enabling the Americans to maintain their hold on the region.

After evacuating Mount Independence, he went on to Albany and Saratoga where he laid out earthen fortifications for both victorious battles. In 1780, he joined General St. Clair and his regiment of artificers at West Point.

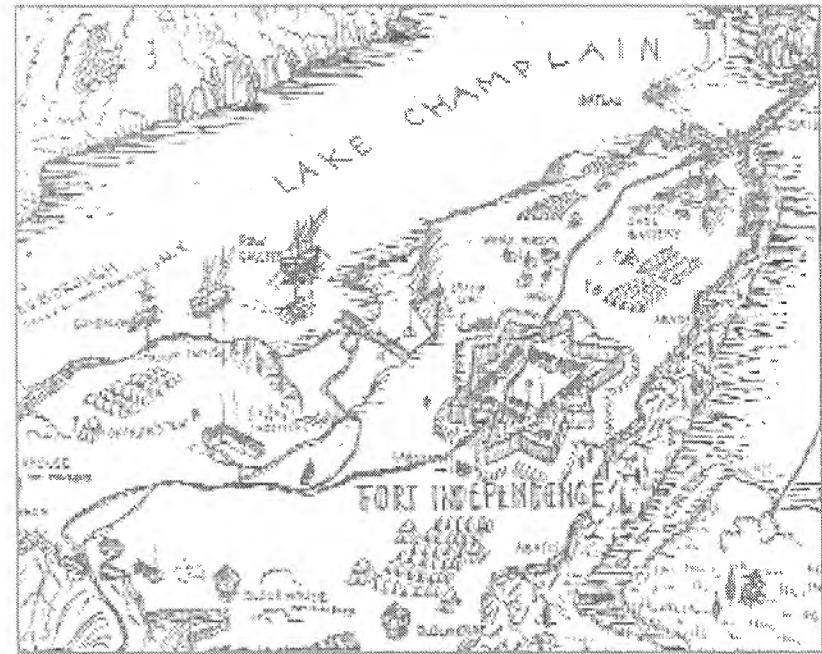
His genius, focused dedication and brilliant orchestration of people and resources can be glimpsed through the hurried phrases of his daily journal entries. Today, his journal is one of the most studied and quoted documents from Mount Independence.

Independence Pinned to a Star: The Star-Shaped Fortification at Mount Independence

As minor skirmishes with the British changed to full-fledged military confrontations, the Continental Congress realized that military strategy and fortification was paramount to the survival of the independent colonies. Through a stroke of daring courage by Ethan Allen and Benedict Arnold, Fort Ticonderoga had been captured by the Green Mountain Boys in 1775. Continental troops were immediately sent to man this strategic location to make it impenetrable to attack from the north. Plans for fortification included earthwork batteries, blockhouses, and a central fort on a promontory facing Fort Ticonderoga that afforded a northern view of Lake Champlain.

The Mount Independence fortification differed from Fort Ticonderoga, which lay one-quarter mile across Lake Champlain in what is now New York State. Fort Ticonderoga, originally called Carillon, was built by the French as an outpost to protect its holding in the northern wilderness. It was solidly

built of log and dirt and faced with stone, according to military engineering standards of the time. Even the surrounding land was carefully graded into a steady slope, called a glacis, which protected the fort from direct cannon fire. It was strategically



placed to command a view to the south toward British occupied southern New York and New England.

Carillon was captured by the British during the French and Indian Wars, renamed Fort Ticonderoga, and maintained as a British outpost until 1775 when Ethan Allen and the Green Mountain Boys sneaked through an unguarded passage during an early morning raid and claimed it for the colonies.

Unfortunately, southern-oriented Fort Ticonderoga was

at a disadvantage to protect the colonial forces from a northern attack by the British army. Additional fortification was needed that commanded a view of Lake Champlain to the north. A spot was chosen on the opposite side of the lake. Cannons strategically placed on both sides of the quarter-mile narrow lake channel, located between what is now Vermont and New York, would present a major and, hopefully, impenetrable defense. The narrows could be further blocked by a large wood and chain boom crossing the lake. The Mount, as it was called, was naturally surrounded by the lake on two sides and East Creek on the third, forming a peninsula jutting into Lake Champlain.

Enthusiastic comments filled soldiers' journals from July 1776. General Horatio Gates wrote to General Benedict Arnold on July 11, 1776:

General Sullivan and the gentlemen here are captivated with the ground intended for our new post, where the water is excellent. We have begun to clear the ground and make roads.

John Trumbull penned in a letter to Joseph Trumbull dated July 15, 1776:

We have now determ'd to take post on a Hill opposite this place [Ticonderoga], a post finely fortify'd by Nature but cover'd by a thick wood, the men are draughted daily to do this.

The imminent arrival of British troops and the thin top soil and rocky ground of the Mount were not conducive to constructing earthen and stone fortifications typical of Fort Ticonderoga and European forts. Also, such structures took

time and manpower that the American forces did not have. Time was crucial; the British could sweep up Lake Champlain from Montreal at any moment. Engineer Jeduthan Baldwin assembled over 200 artisans and quickly set to work. Felling timbers in the immediate area, Baldwin used his skills to lay out wooden pickets in an eight-sided, star-shaped pattern. Known as the star fort, the log pickets surrounded hastily constructed wooden barracks which could house 1,000 men. Baldwin also located a small hospital building safely within the enclosure.

Thaddeus Kosciuszko's testimony at the St. Clair court martial states that the fort was "picketed all around, some good and some bad."

He also commented on the difficulty of raising a parapet due to *very stony or rocky ground, and would require a great deal of labor to put on the works. A ditch could not be sunk to any proper depth without blowing the rocks.*

Working at breakneck speed, without sufficient tools or manpower, and battling the harsh elements of rock, rain and snow, an undernourished, poorly clothed, overworked band of men raised a fort that exemplified the American spirit. Upon hearing the Declaration of Independence read, along with Colonel Arthur St. Clair's (promoted from General to Colonel) resounding "God save the free and independent States of America," the soldiers pinned their aspirations to this rocky promontory, naming it Mount Independence.

Perhaps the army's hope for Mount Independence is best summed up by this entry in the Wayne Orderly Book for August 12, 1776, by Walter Stewart, aide to General Horatio Gates, who

stated:

when the weather clears up the General [Gates] hopes the troops will turn out in a spirited manner to finish the works. The honour of the army and the preservation of the liberty's of America, depend upon their animated exertions this campaign, that happily finish'd, freedom will be restor'd to America & every inhabitant under his own vine & fig tree may enjoy the inestimable blessings thereof.

A Hospital for the Sick

Desperate conditions at the Mount during the winter of 1776 caused the number of soldiers on sick call to swell to an alarming proportion with only half the men fit for duty according to an orderly's journal. Hardships at Mount Independence during that winter rivaled Valley Forge. Soldiers marched with rags on their feet; others froze to death in their tents at night from lack of clothing and blankets.

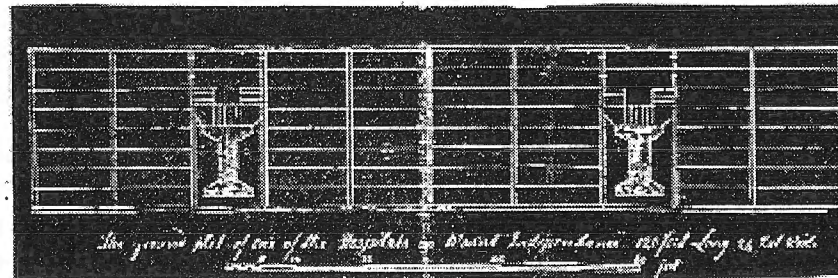
Some boiled and ate leather when no rations were to be had!

Finally, attention was drawn to the deplorable conditions of the sick and wounded at Mount Independence and Fort Ticonderoga. On November 27, 1776, a Congressional Investigative Committee recommended that a general hospital for the Army stationed at Fort Ticonderoga should be located at

Mount Independence (Starbuck 1991). Plans were drawn up in March 1777, by Chief Engineer Jeduthan Baldwin. Loggers and sawyers began work immediately, so that by March 31, 1777, Baldwin recorded in his journal that he had finished getting the timber for four hospitals. On May 27, 1777, the north side of the large 250- by 24-foot hospital had been raised. By early June, Baldwin was dining at the hospital with the surgeons. After the unimaginable suffering endured by the sick and wounded at the regimental hospitals during the winter of 1776, Baldwin seemed pleased on June 14, 1777, to declare the almost completed new hospital "warm and pleasant."

Three large surgical and recovery hospitals were built under orders from Congress at Albany, Lake George, and Mount Independence. Historical sources indicate that the hospital at Mount Independence was a wooden structure, two stories high, capable of holding 600 men. A large wing was being constructed over a massive cellar hole at the time of evacuation.

The hospital at Mount Independence is historically and archaeologically significant for many reasons: it is one of the largest Revolutionary War hospitals, its precise location is known, and it is the only Revolutionary War hospital to be professionally excavated. The 1990 excavation by the Vermont Division for Historic Preservation and the University of



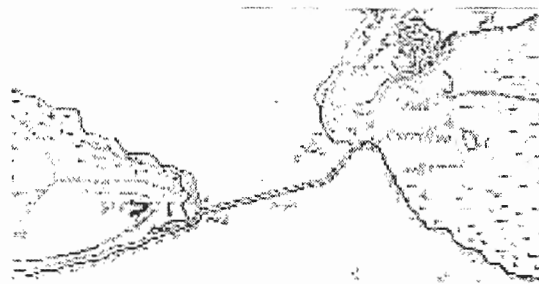
Hospital layout from Baldwin's journal

Vermont found a large quantity of rosehead nails from the shingled roof and three large concentrations of stones, believed to be the remains of fireplaces.

The Great Bridge

In October 1776, a small floating footbridge, five feet in width, was constructed between Mount Independence and Fort Ticonderoga. This bridge was very useful for communication purposes between the two sites and for workmen traveling back and forth to help with construction, land clearing, and other tasks.

In the winter, after the lake was frozen solid, traffic between the forts followed footpaths across the ice. Special toothed, iron grippers that strap onto boots or shoes have been found at Mount Independence. These ice creepers prevented the wearer from slipping as he crossed the frozen lake. (See **Museum**

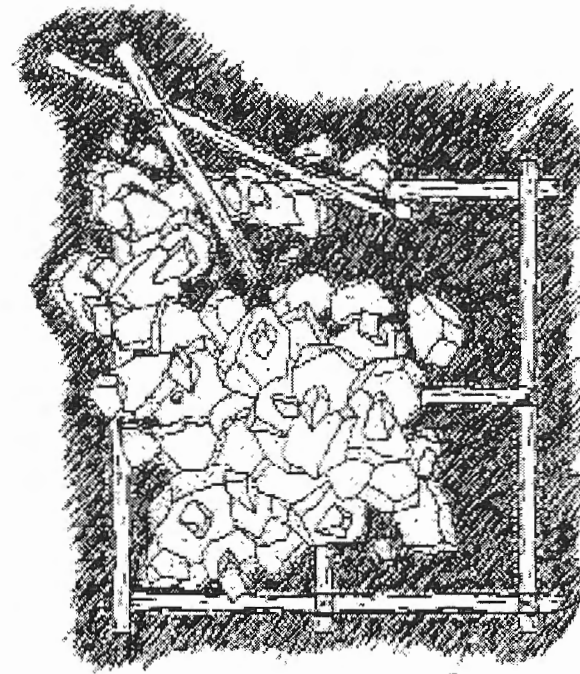


Kit for Ice Creepers .)

However, a larger bridge was needed to facilitate quick movement of troops and equipment between the forts. In March 1777, with ice several feet deep, work began on the "great bridge" as it was called. Located just north of the footbridge, the great bridge was built on caissons filled with rocks placed at intervals of 50 feet. Posts were then placed on top of

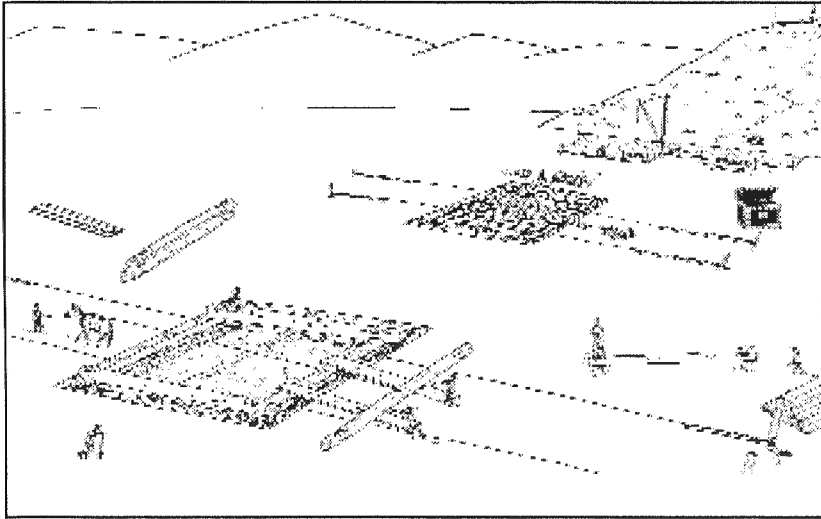
the rock pilings. The entire bridge was over four hundred yards long, supported by 22 piers. Between the piers were separate floats, each about 50 feet long and 12 feet wide, fastened with iron chains and rivets. In front of the bridge was a boom made of large timbers fastened together with large iron bolts. Beyond the boom lay a double strand of heavy iron chain.

Baron von Riedesel records his first view of the bridge in his diary.



Artist's interpretation of building a caisson

Between the forts were four armed vessels, in front of



Men building bridge between Mount Independence and Fort Ticonderoga

which was a bridge connecting the two forts. In front of the bridge was a very strong iron chain.

The iron chain placed in front of the bridge was designed to prevent Burgoyne's ships from ramming the bridge and advancing by water to the mouth of Lake George.

Richard Ketchum, former editor of American Heritage Books, remarked on one theory about the construction of the great bridge in his dedication address at the Mount Independence Visitor Center in July 1996:

Notice the size of those logs and think how many enormous trees had to be chopped down with axes, cut to length, hauled across the frozen lake in winter, and laid up log-cabin fashion in a shape resembling half a pyramid and then filled with rocks--heaven only knows how many

tons of rocks. These were the caissons for Baldwin's 12-foot-wide Great Bridge and when they were complete he cut holes in the ice around them and they sank to the bottom. Now I have no idea how many timbers went into this construction project, but think of it--there were



Thaddeus Kosciuszko

22 of those caissons, so hundreds of the great logs had to be dragged out on the ice by hand, since they lacked draft animals and were running out of time. (See the log on display at the Mount Independence Visitor Center.)

Underwater archaeological exploration will surely turn up more details concerning the con-

In June 1777, the American army constructed artillery batteries on the Mount to guard the only land access to Mount Independence. The work was directed by the French-trained Polish engineer Thaddeus Kosciuszko who had come to assist Baldwin.

struction of the great bridge. As of this date, four huge timbers, around 23 feet each in length, have washed ashore in the area of Mount Independence. The timbers were notched as though used for construction purposes. Are they timbers from the caissons of the great bridge?

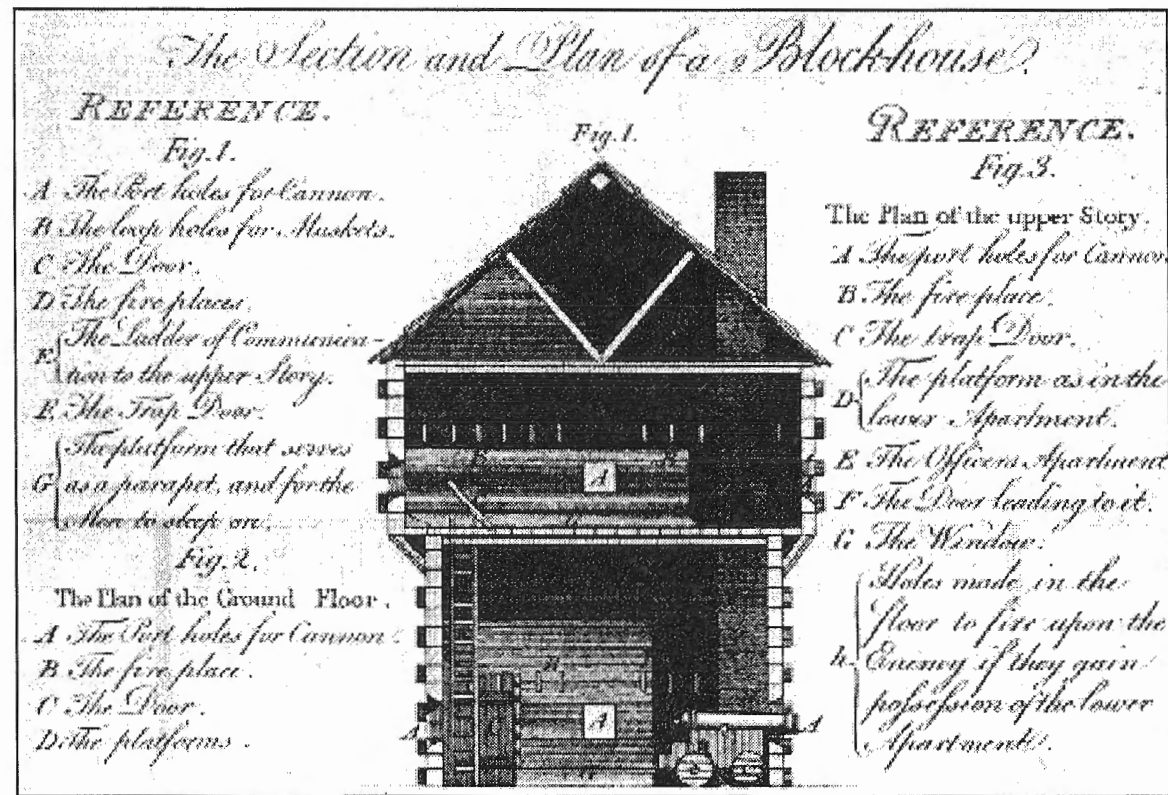
Other Engineering Feats

In addition to the star fort, hospital, bridge, and boom, a variety of other engineering feats were erected on Mount Independence. Remains of several earthenwork batteries are located at strategic points along the shore. Perhaps the most impressive is the horseshoe battery located near the tip of the peninsula. This battery enclosed a gun platform and served as a secondary defense for the shore battery that guarded the narrows separating Mount Independence from Fort

Ticonderoga. It also commanded a view of Lake Champlain to the north from which Burgoyne's army would mount an attack. This battery is believed to be the work of Polish volunteer Thaddeus Kosciuszko, who was

also chief engineer at Saratoga and West Point. Congress rewarded him for his contributions to freedom by giving him citizenship and the rank of brigadier general.

Due west of the horseshoe battery, the lake meets the rocky shoreline. One spot is of particular interest, since the water at this juncture is unusually deep--deep enough, in fact,



to float a ship right up to shore. It is believed that this rock outcropping is the spot where masts were fitted for Arnold's fleet. Since masts were not only massive in length but also in weight,

stepping the masts required then, as now, either a crane or other means of hoisting them into place. At this location, masts could have been lowered over the rocky outcropping directly down to a boat moored below.

To maneuver the rocky shoreline and steep cliffs surrounding Mount Independence, a crane was needed to lift cannon, equipment, and supplies from the shore. Supply boats entered the protective cove called Catfish Bay and docked near the shore. Loads were carried to a ramp and hoisted by crane from the meadow 200 feet below. The foundation for this gigantic crane, measuring roughly 30 feet square, can still be seen. Jeduthan Baldwin's journal entry for April 7, 1777, reads "looked out place to hoist provisions from lake with ropes and block," and on April 24, 1777, "raised frame for crane."

Archaeological research at Mount Independence includes the partial excavation of fifteen "rubble features." These features, believed to be the remains of huts built by soldiers, appear as low mounds of fieldstone rubble covered by junipers and scrub brush. Excavation revealed habitation areas, 18 or 19 feet square. Some huts were made of logs while others seem to be fashioned of sawn boards, judging from the quantity of nails remaining. Little evidence is found of brick or stone chimneys. Stick-and-daub constructed chimneys might have been used, or a simple hole in the roof. Soldiers' diaries record the construction of huts or "wooden tents" as some were called. Henry Sewall, a young soldier from York, Maine, recorded building a hut almost without the use of tools. He also mentions building a chimney and cutting shingles for the roof.

Besides soldiers' huts, foundation stones of several blockhouses can be seen in various locations. Some of these structures are thought to have been built by German soldiers after the American retreat from Mount Independence.

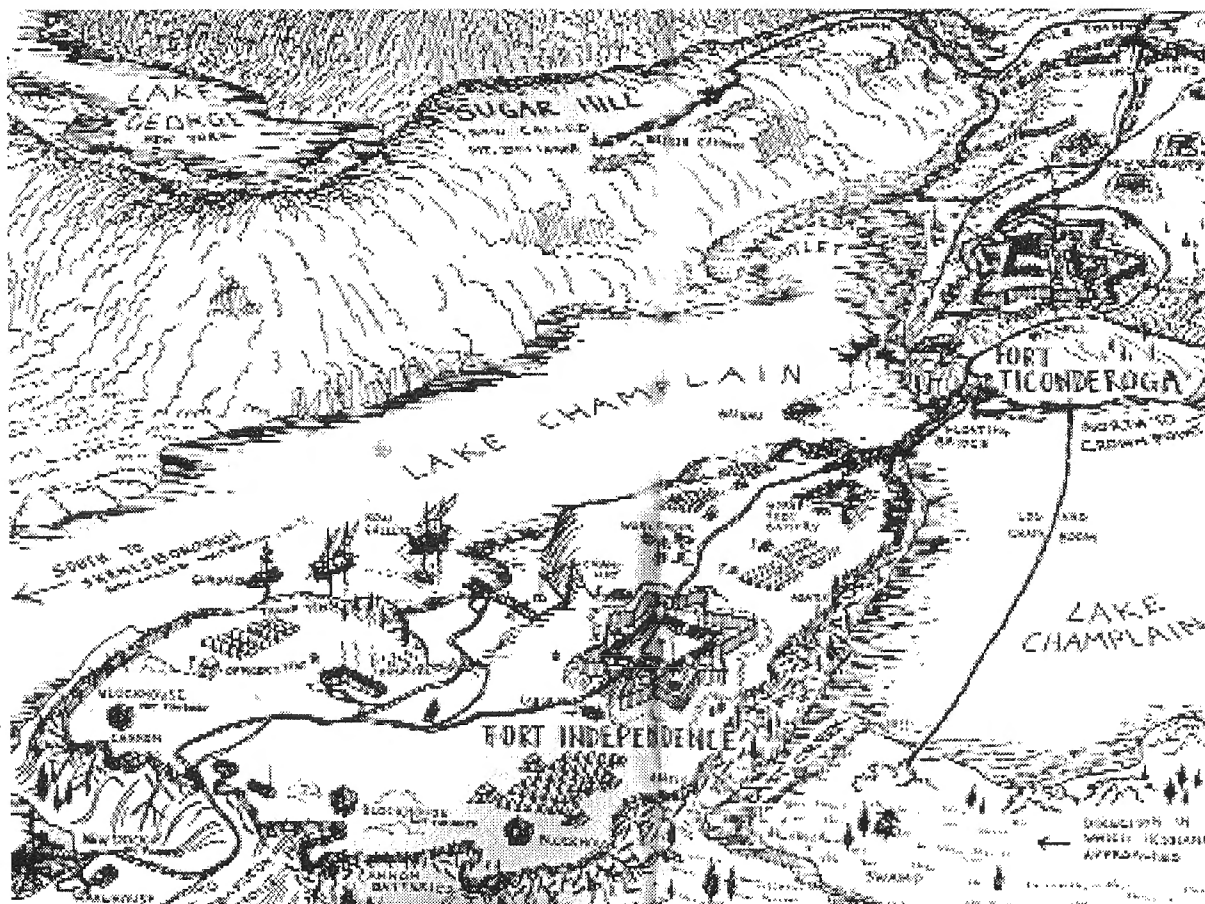
The Military Road Network of Mount Independence

Look at the historic maps that depict the military road network on Mount Independence during the Revolutionary War period. What role do roads play in history? Often, the importance of roads is neglected in describing historical events. However, can one imagine what might have occurred if there were no land routes leading to and from Mount Independence? They served as significant corridors for moving military troops and transferring supplies and artillery. In addition, many structures and other features on Mount Independence were constructed to align with the road network. Although the most famous recollection concerning a road associated with Mount Independence involves the use of the Mount Independence Hubbardton 1776 Military Road by the retreating Americans and pursuing British, this discussion of the military road network on Mount Independence also includes other roads on the Mount, their original purpose, the associated engineers and methods of construction, as well as the most renown events associated with their use.

Crown Point Military Road

The Crown Point Road was the first military road to connect the region. Originally 87 miles in length, this road linked the far northern reaches of the American frontier with more established settlements on the Connecticut River. In effect, it opened up central Vermont for settlement. Crown Point, on the west side of Lake Champlain, was the western terminus of the road. It "was the most important trading post this side of Quebec for English and French traders who used the Indian routes which crossed the Green Mountains" (Weeks 1959:2). The road linked the fortress at Crown Point (and the adjacent Chimney Point on the east side of Lake Champlain) with Fort Number 4 (now Charlestown, New Hampshire), built in 1744 on the Connecticut River. Construction of this British military road, by order of General Jeffrey Amherst and under the supervision of Major Hawks, Colonel Stark, and Colonel Goff, occurred, 1759-1760, near the end of the French and Indian Wars. Soldiers at Mount Independence

accessed the Crown Point Military Road which lead to the southeast by initially traveling north.




Roads on the Mount

As activities were under way to fortify Mount Independence and establish it as the major northern military post, roads and paths were developed to traverse the Mount

and the surrounding area and facilitate troop maneuvers. This engineering project became another one of Colonel Jeduthan Baldwin's jobs as chief engineer of the Northern Army.

Revolutionary War period maps of 1776 and 1777 reveal that the Mount was bisected by a road which extended from the north point of the Mount and the south portal of the floating bridge, through the star fort, and south along the east shore of Lake Champlain (or Wood Creek). This central road connected at the south end of the Mount to another road which extended east-west approximately parallel to the south end of the plateau. The 1776 Trumbull map (in Museum Kit) shows the route extended to the southeast corner of the Mount connecting to roads leading to the "Landing from Skenesboro" and the "Road from Skenesboro," also known as the Mount Independence Hubbardton 1776 Military Road.

Another road depicted on the Wintersmith map (**In Museum Kit**)  indicates a connection to and from the Mount over East Creek. This may be the short road built by the German troops a few days before the American retreat and used by Colonel Breymann's troops as they marched south along the east bank of Lake Champlain.

Traces of the original military roads of Mount Independence can still be seen. In fact, many of the self-guided trails at the site align with the former military roads. For example, existing topographical and physiological features indicate that the Orange Trail leading from the information kiosk to the site of the star fort roughly follows or parallels the path of the central military roadway. The Blue Trail extending along

the west flank of Mount Independence also follows a Revolutionary War supply road constructed by the American soldiers. This road, depicted on the Trumbull and Wintersmith maps led from the floating bridge to structures on Mount Independence, including the hospital. Along a rocky incline, original stonework for the supply road is still visible, along with stonework associated with access to the springs.

Mount Independence-Hubbardton 1776 Military Road

Although Chief Engineer Baldwin had orders to fortify the Mount and construct roads that traversed the Mount, military command was also interested in establishing a shorter new road to Rutland Falls and Fort Number 4. This route, which connected Mount Independence with eastern New England, was intended to improve upon the Crown Point Road by shortening the distance (by 5 miles) and facilitating the arrival of troops and supplies from the south.

Although little of the Mount Independence-Hubbardton Military Road lies within the boundaries of the Mount Independence National Historic Site, it deserves discussion as it was critical to the American's ability to evade the British and the subsequent outcome of the Revolutionary War.

General Horatio Gates' papers at the New York State Historical Association indicate that on September 7, 1776, Gates gave the following orders and instructions to Lieutenant Colonel John Barrett of the Militia of Cumberland County in the State of New York:

You are immediately to proceed to cut the road from [Fort] Number 4, to the Foot of Mount Independence, taking care to construct a Good Bridge Over Otter Creek, at, or near, the Falls at Rutland. In doing this publick Service, you are to Exert your Utmost Vigilence, with the Detachment of Col. Vandicke's Regiment of militia; and All others under your Command, to obey all Orders, & directions; given you by your Superior officers in forwarding a Work so Essential to the Interest of the United States, & so Necessary for the safety & protection of the Interior Inhabitants of all the Middle States of this Union (Wheeler and Wheeler 1968:194).

The road, first marked by Benjamin Hecock and David Remington, extending through Hubbardton and Center Rutland, spanned approximately 40 miles. On November 6, 1776, Barrett informed General Gates at Ticonderoga that "The Party at Work on the Rode have accomplished the Cuting a Rode through from the Mount to Otter Creek, and will in a Day or two Effect the Bridging" (Wheeler and Wheeler 1968:195).

Little did these officers know that eight months later the road would play an essential role in the evacuation of Fort Ticonderoga and Mount Independence. On July 6, 1777, the Americans started their retreat from Fort Ticonderoga at 2 a.m. and from Mount Independence at 4 a.m. For the record, what was not drawn over this military road during the retreat was 128

pieces of artillery, their shipping and bateaux, 1,748 barrels of flour, 70 tons of salt provisions, and a large drove of cattle. These fell into Burgoyne's hands. But the Americans did haul some cannon over the road at least as far as Hubbardton.

Although not as well known, this was also the road the Americans marched over again in September 1777 when attempting to cut the site off from the rear of Burgoyne's army and free the 278 American captives who were at Fort Ticonderoga.

The British Road on Mount Defiance

Although not one of the roads on Mount Independence, brief reference to one additional road deserves mention. This road led up Mount Defiance, overlooking Fort Ticonderoga and commanding the entire American encampment and works. The Americans had made a serious mistake in not fortifying this location. Under cover of darkness, Lieutenant Twiss, the British Commanding Engineer, supervised the clearing of a narrow road up the steep flank of Mount Defiance. The British subsequently dragged artillery up by ropes. Once Mount Defiance was fortified, the Americans were left in an untenable position.

Clearly the historic roads associated with Mount Independence were not like the smooth, asphalt highways we travel today.

Original road planning was not perfect, and changes must have been made from time to time, and perhaps from wet

season to dry season. Roads were merely cleared paths through primeval forests--steep hills, rocks, marshes, and fallen trees (Clement in Wheeler and Wheeler 1968:223).

Road construction sometimes did entail cutting into a hillside (often resulting in a "dugway road"), building abutments, grading, filling, or laying of wood planks or corduroy. Well-traveled and prepared roads often had surface and subsurface structures, sometimes composed of gravel, sand, or crushed rock, which contrasted from the surrounding matrix. Yet no historic maps or documents detail the elements or precise route of the historic roads associated with the Mount. In addition, archaeological investigations of these historic roads and associated features have never been undertaken. However, traces of old roadbeds and other physical evidence of the original routes have been identified. Obscured by plant and tree growth, cultivation and other farming activities, and easily confused with historic or more modern farm or logging roads, evidence relating to the old roads include old corduroy, abutments and other remains of bridges, trenches, embankments, filling, and grading. In addition, Revolutionary period artifacts, including a shoe buckle, cannonball, and bayonet, have been recovered near different sections of the historic roads.

Historians continue to compile documentary and physical evidence of the precise historic routes and their character. For example, in spite of General Fraser's reference to the Mount Independence Hubbardton 1776 Military Road as the "great road recently built [the year before] by the Rebels," historians such as Wheeler and Wheeler have concluded this

military road was "but a pretense of a road" and "a mere wagon track, new rough, rutted, and spotted with stumps of trees" (Wheeler and Wheeler 1968:115). Anyone who traces its course, winding, inadequately graded, and narrow enough to just clear the tree trunks, can realize it was not much of a road. It was probably unsuitable for quickly and quietly transporting the sick, as well as cannons and other artillery. In fact, artillery and heavy supply wagons may have required both ox teams and packhorses. Imagining the road as a mere wagon trail makes it easier to understand how military officers planned surprise assaults and secret evacuations of Fort Ticonderoga and Mount Independence over this road.

Resources

Baldwin, Thomas, Ed. The Revolutionary Journal of Col. Jeduthan Baldwin, 1775-1778, Bangor, Maine: DeBurians 1906

Howe, Dennis. "The Archaeology of a 1776 Cantonment of New Hampshire Regiments," The New Hampshire Archeologist, 32:1, Concord, NH, New Hampshire Archeological Society, 1991.

"Site of Mount Independence, 1776-77." Montpelier, VT, Vermont Division for Historic Preservation, nd., brochure

Wheeler, Joseph L. and Mabel A. Wheeler, The Mount Independence-Hubbardton 1776 Military Road. Benson, VT, J.L. Wheeler, 1968.

Wilgus, William J., The Role of Transportation in the Development of Vermont. Vermont Historical Society, Montpelier, VT, 1945.

Sappers, Artificers Needed: Inquire Within!

Objective:

Interpret technical language from another era and convert to modern technical language that is concise, simple to read and easily understood.

Target Ages:

Grades 4-8


Class Orientation:

Whole Class. Students will be paired to work on the final product.

Time Needed:

Two 45 minutes class periods

Materials:

- Heath Memorandum, included with this activity, stating the terms for hire of an artificer (military term for craftsman).
- A modern contract such as a builder's construction contract or a teachers' contract.
- **Optional:** Copy of Baldwin's Journal (In Museum Kit.) 

Introduction:

The newly formed Northern Army was in desperate need of skilled workmen to build, maintain, and repair the bustling complex of fortifications at Fort Ticonderoga and Mount



Independence. There was a navy to equip with ropes, chains, cannonballs and sails, not to mention ships to build. Cart wheels must have frequently broke while negotiating the rocky paths on the Mount. The orders for roofing shingles alone was astronomical and production of forged nails and hinges constantly lagged behind demand. Chief Engineer Baldwin's plan book must have looked very ambitious: 1 crane, 4 hospitals, 2 bridges, barracks for 1000 men, shore batteries, horseshoe battery, and for good measure, 1

picketed fort. Baldwin's journal speaks of 286 artificers, or skilled crafts people, under his command.

Heath Memorandum

Major General William Heath, 23:20, December 16, 1776

Memorandum of Agreement made and entered into this sixteenth day of Decmr 1776, Between Colonel Jedun Baldwin Chief Engineer in the Northern Department of the first part And Mr. Jedih Thayer of the State of the Massachusetts Bay Gentn and Mr. Nathaniel Emerson and the persons whose Names are hereunto Subscribed, and Seals Affixed of the Second part all good workman at the Carpenter's Business, to the Number of Sixty Men, the said Parties of the Second part each for himself promise and Agrees that they will immediately repair to such places as the said Colonel Baldwin shall direct, and there Employ themselves in constructing such works or Buildings as the Said Engineer shall Order.

That each of the parties of the Second part Shall during the time be in the Publick employ conformable to these Resolutions each day continue at there said work and employment not Less than Ten hours,

That if any of the Said parties of the Second part shall leave the said work, or go from the Post where they shall be employed, without the leave of the said Colo Baldwin, or the Commanding Officer of the post, where he shall be so employed being first Obtained, He or they so going off shall forfeit all the Wages that shall be Due them to them on Account of their Service performed in Consequence of this agreement.

In Consideration where of the Said Jedun Baldwin Engineer promises and agrees that the Said Jedih Thayer shall have and Receive Twelve Shillings pr day, and Nathaniel Emerson Ten Shillings pr day and every other of the Said parties of the Second part the Sum of Eight Shillings pr Day, New York Currency for every Day that they shall be in actual employment. That over and Above that Sum the said parties of the Second part shall severally receive one and half Ration of Provisions, and one gill of rum pr day, That the Said wages Shall commence from the time of the said parties of the Second part shall Respectively leave their Usual places of Abode, Allowing at the rate of one Dollar for every Twenty Miles Travel. And the Said parties of the first and Second part, do hereby agree with each other that if any of the said parties of the Second part is taken Sick during the time which they shall be Employed as Above, the person so taken Sick Shall not be entitled to wages for the time he Absents from working by reason of Sickness. Unless the said Colo Baldwin or the Commanding Officer of the Post where they shall be so Stationed Shall on Application to him Made, refuse to Discharge

Commanding Officer of the Post where they shall be so Stationed Shall on Application to him Made, refuse to Discharge them, and then they shall be Entitled to wages from the time of such refusal.

The testimony here of I hereinto Set my hand and Seal at Albany this Sixteenth Day of Decr. 1776

The Genl approves of the Raising of a Company of Artificers on the Terms above Mentioned by order of the General

John Lansing Junr Secrey.

Head Quarters Albany December 16th 1776

A True Copy from the Original Attest John Becon Junr Clerk

While at the Mount:

Look for Baldwin's Journal in the Visitor Center exhibit.

Whispered Echoes From the Mount:

*"smiths came up, a
Fine Day at ye
Bridge"*

Jeduthan Baldwin, Rev. War
Journal 1776-1777: 94

Some of these were probably trained to be sappers, or fortifications experts. Fortunately, Baldwin also received assistance from the Polish engineer Thaddeus Kosciuszko. After evacuating Mt. Independence, both Baldwin and Kosciuszko went on to use their talents at West Point, where in 1780, the engineering regiments became more formally organized under the name Corp of Engineers, Sappers and Miners and were distinguished by their blue coats with buff facings and red linings.

Activity:

- Read the Heath Memorandum of Agreement together as a whole class activity. Notice the historic period capitalizations and abbreviations.
- Who are the parties of the first part and parties of the second part?
- Make two lists, stating the terms of agreement for each party.
- Ask students to work in pairs to make a new Memorandum of Agreement stating the same facts and information but using modern language and sentence structure to clarify the points of the agreement. If time allows, read the contracts aloud.
- Students can be divided into two groups, representing the first party and the second party, and asked to negotiate a new agreement.
- Read a modern contract such as a teacher's contract. How are the Heath Memorandum terms similar and/or different from employment contracts today, especially pay scale and sick leave? Students can make a modern version of the Heath Memorandum with terms more agreeable to today's workers: paid vacation, paid sick leave, higher salary, insurance benefits, etc.
- Read Jeduthan Baldwin's July 28 journal entry (**Journal in Museum Kit**) and define the types of work performed by each group of artificers and the significance of their craft at Mount Independence.

Notes:

- Research one of the occupations given in Baldwin's July 28 journal entry. Show and explain examples (modern or old) of the craft. Interview a craftsman. Write five journal entries as though you were at the Mount in 1777. Comment on the work you are doing, tools you use and the problems you encounter.
- Discuss the mathematical, scientific and technical knowledge necessary to perform your chosen craft. Be specific.

Objective:

To design a fort using problem solving and mathematical skills

Target Ages:

Grades 4-12

Class Orientation:

Individual or small groups

Time Needed:

Pre-teaching on scale and proportion if students do not know how to make a scale drawing. At least 30 minutes class time to get the project planned and started. This project might continue for several days as a long-term homework assignment.

Materials:

- Protractors
- Rulers
- Graph paper

Resource Materials:

Furcron, Thomas; "Mount Independence." The Bulletin of the Fort Ticonderoga Museum IX:4:1954: 230-248.

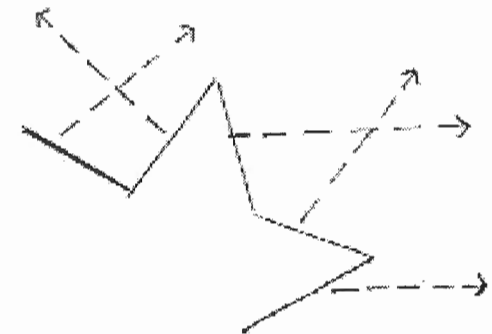
Peterson, Harold. Forts in America. New York: Charles Scribner's sons, 1964.

Does This Star Have a Point?

Learning about Fort Design

Introduction:

Jeduthan Baldwin, who designed fortifications at Mount Independence, knew the star pattern was a very defensible design because it gave unhampered visibility and made cross-fire possible from many angles. Star-shaped forts have no hidden corners or crannies in the walls that could potentially hide advancing enemies (see illustrations).



Activity:

Students will design a fort using their own innovative patterns. A scale drawing or three-dimensional model of the fort design should be accompanied by a written description. Ask students to think about how their design would be practical? advantageous? List the positive elements of the design in order to "sell" it to the post commander. The post commander (teacher) will rate the forts according to the following criteria:

- 20 points for form--simple, easily-constructed shapes that do not have complex angles or elaborate design elements.
- 20 points for function--every design element should have a stated function for defending the fort or housing the soldiers.
- 20 points for mathematical scale--an appropriate scale should be used consistently that does not make the model or drawing too small to observe detail or too large to be practical.

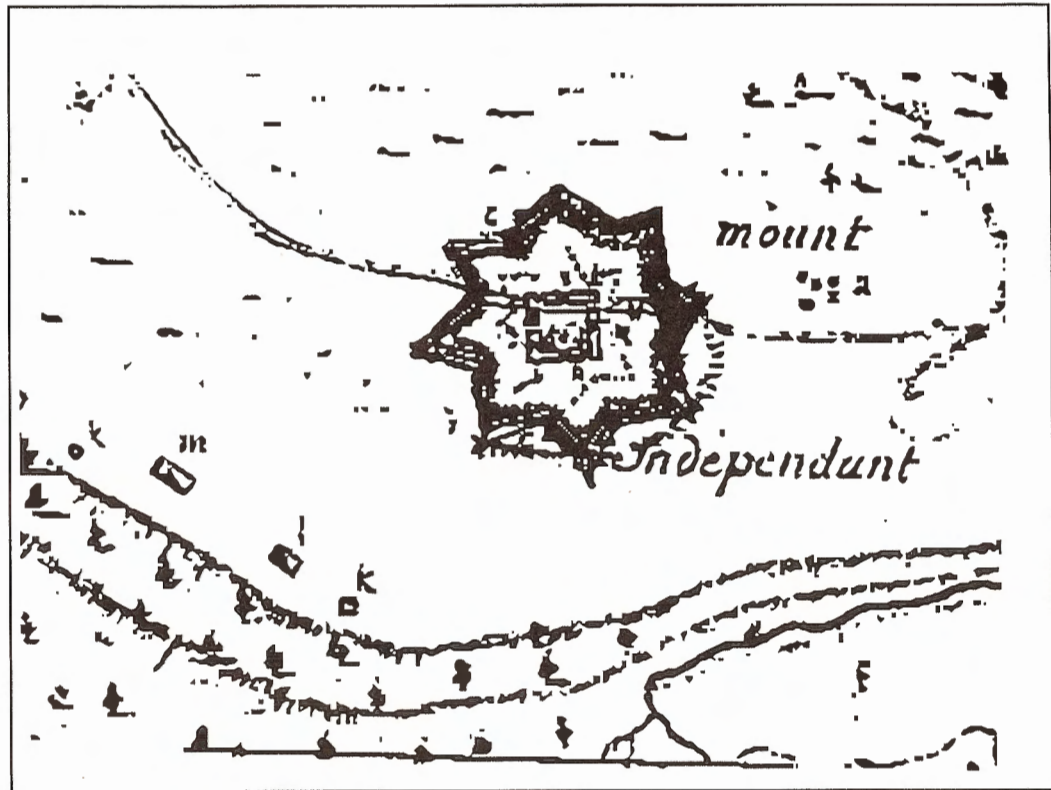
While at the Mount:

Visit the site of the star fort. Which features do you think are natural? Which are man-made?

Whispered Echoes from the Mount:

"went over to Independence point began to set up the pickets all was well and without fear."

Col. Jeduthan Baldwin,
Rev. War Journal 1776-77:80



- 10 points for construction materials--A good design utilizes native building materials that are strong and durable and that don't take an excessive amount of preparation.
- Highest possible score is 70 points

Note: Actual American fort designs are shown on a sketch sheet accompanying the next activity. The sheet can be used to help students plan their fort designs or it can be used at the end of this activity to compare real fort designs with designs the students have created.

Become A Fortifications Engineer

Objective:

To lay out barrack designs and draw a star-shaped fort using problem solving and mathematical skills

Target Ages:

Grades 5-12 (varies with each problem)

Class Orientation:

Individual or pairs

Time Needed:

45 minutes class time, more time may be necessary to draw a fort and compute area

Materials:

- Protractors
- Rulers.
- Graph paper.
- Sketches of fort designs (attached)
- The illustration of the fort from the John Calfe powder-horn. (see next page)

Introduction:

By the eighteenth century fort making had evolved into an elaborate engineering science. In Europe, detailed descriptions of the exacting architectural, mathematical, and engineering skills necessary to design and construct a fort were compiled in elaborately illustrated books, the most popular being Treatise Containing the Elementary Part of Fortification, Regular and Irregular, by John Muller, Professor of Artillery and Fortification published in 1746. Students will be interested to see that geometry definitions are stated in language very much like that given in textbooks today. Notice the elaborate designs and multiple angles shown in the illustrations of fort construction. These fortifications took many years to complete.

Understanding that he might have only weeks to construct a central fort at Mount Independence, Chief Engineer Jeduthan Baldwin designed a simple eight-sided star shaped wooden-picketed structure enclosing wooden barracks. Dismissing elaborate earth and stone work like that at Fort Ticonderoga as too time consuming to fabricate, the star fort was constructed of native timber which has since rotted away, leaving little visible evidence of its existence. What we know of it is based on journal descriptions and sketches.

Using what information is known about the star fort from maps and illustrations included in this chapter and determining other necessary dimensions by "guestimation," solve the problems given below. We can assume that Chief Engineer Baldwin must have worked out the answers to problems similar to these while designing the star fort.

While at the Mount:

Visit the site of the Star Fort. Notice the level parade ground which was once inside the pickets.

Whispered Echoes from the Mount:

"on the summit of the Mount they have a star fort made of pikets, well supplied with artillery, and a large square of barracks within it..."

Anburey, 1789

Problems:

1. (Grade 5 and up) Thaddeus Kosciuszko's testimonial record at the St. Clair trial states that the barracks within the fort would house 1000 soldiers. Chief Engineer Baldwin's notes tell us that the barracks were 200 feet long. The width is not stated, but we will assume for this problem that each barracks is 15 feet wide. Assuming that each soldier will be given 24 square feet of floor space, how many soldiers can be housed in each barracks? How many barracks will be needed to house 1000 soldiers?
2. (Grade 5 and up) Using the number of soldiers per barracks computed in Problem 1, use graph paper to draw a barrack showing what you think is the best arrangement for cots. Assume that each cot is 6 feet long and 2 feet wide. This is definitely an assumption. Journals report that many soldiers slept on bare ground with no blankets! Remember to leave aisles between cots as needed.
3. (Grade 10 and up, or any geometry student) Let us assume that Chief Engineer Baldwin was told that a central parade ground measuring 400 feet on each of its four sides was needed for drilling the soldiers. It would be surrounded by barracks for 1000 soldiers (use size and number of barracks from Problem 1 above). The entire fort would be protected by a tall, picketed fence laid out in an eight-sided star pattern. The angles and sides of each star point would be identical. Let each star point side equal 125 feet. What is the angle at each star point? Using the above information, draw the eight pointed star fort showing eight barracks in the middle surrounding a square parade ground measuring 400 feet on each side.

Answers to
Problems:

Problem 1.

$200 \text{ ft} \times 15 \text{ ft} = 3000 \text{ sq ft per barracks}$

$3000 \text{ sq ft} / 24 \text{ sq ft per soldier} = 125 \text{ sol-}$

$\text{diers per barracks}$

$1000 \text{ soldiers} / 125 \text{ soldiers per barracks}$

$= 8 \text{ barracks}$

Problem 2. Answers will vary.

Problem 3. Each star point angle is 45°

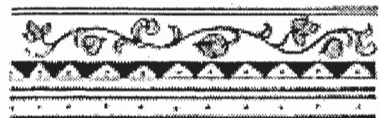
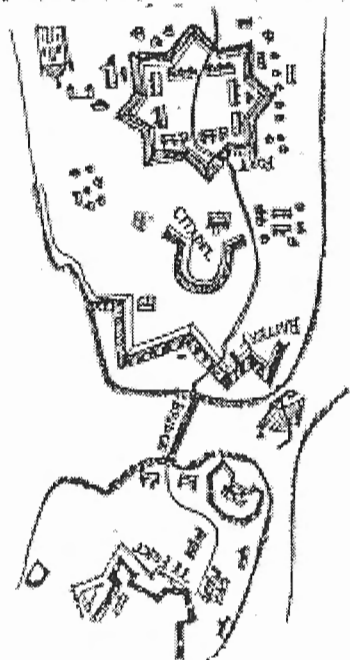
degrees

Mount Independence

Historic Site

Orwell, Vermont

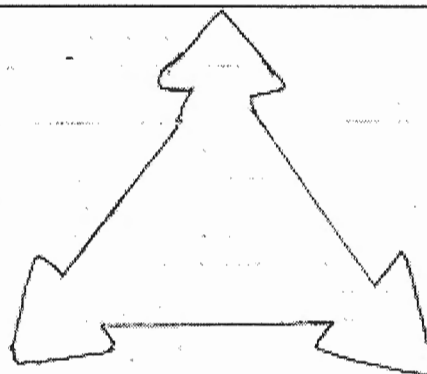
JOHN CALFE POWDERHORN MAP 1777



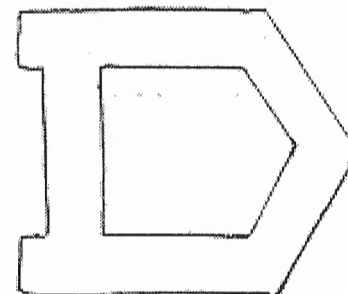
© 1994 V.D.S.P.

John Calfe
Powderhorn

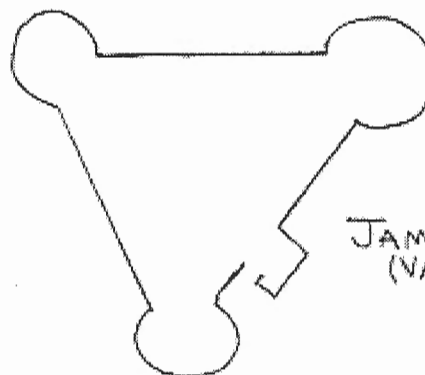
Historic Fort Patterns



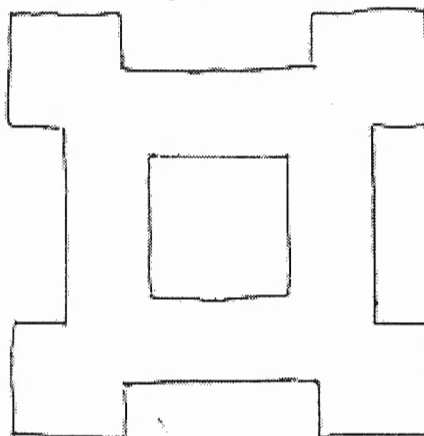
FORT CAROLINE
(FL)



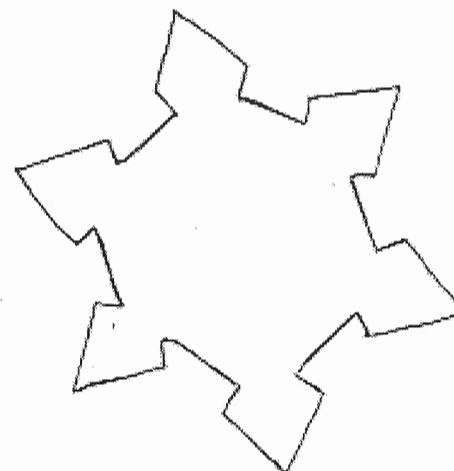
FORT Pulaski
(GA)



JAMESTOWN
(VA)



SAN MARCOS
(FL)



FORT McHENRY

Imagine A Fort

Objective:

- To use creative thinking skills that enhance fluency, imagination and flexibility

Target Ages:

Grades K-8

Class Orientation:

Whole Class

Time Needed:

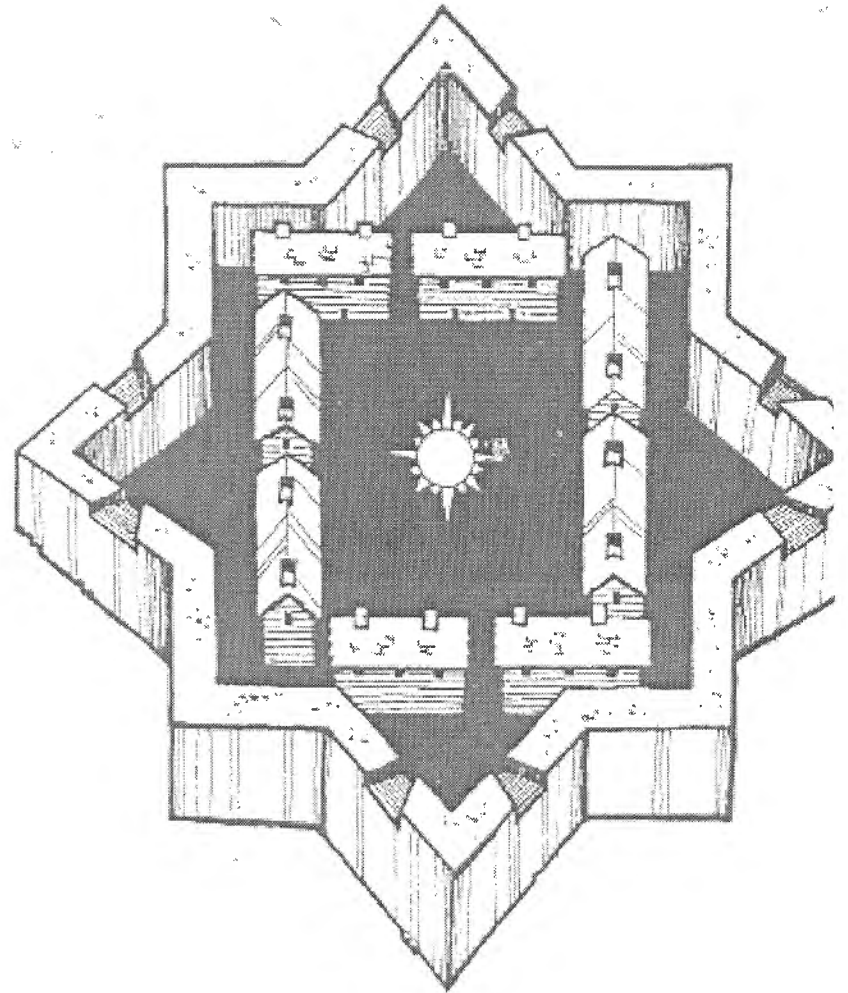
The thinking activity will take 10-30 minutes, depending on the grade level of students. Replicating the fort's star-shaped pattern can take from 10 minutes, to 45 minutes, depending on age of the students and the complexity of the building materials.

Materials:

Materials will vary with suggestions of students, try to limit materials to what is readily available in the classroom.

Activity:

- Display the map showing an illustration of the star fort (See Diagram of John Calfe Powderhorn on preceding page).
- Ask students to think of as many things in the classroom as possible that can be used to make a replica of the star fort pattern. Possible answers might be: pencils, paper clips, student desks, empty milk boxes, etc.
- List the suggestions on the board. Remember to use the rules of creative brainstorm-



While At the Mount:

Notice how the designers of the Visitor's Center have given the notion of a picketed fortification with a few well-placed vertical boards. What other design elements could be incorporated to give visitors the feeling of being in a fort?

Whispered Echoes From the Mount:

*upon the summit,
which is tableland,
was a star fort, made
of pickets, and well-
supplied with artil-
lery and a large
square of barracks
within it.*

Burgoyne, 1780

ing by discouraging subjective comments (even positive ones) such as: "that won't work", "that's no good, great", "I like that idea", etc. while ideas are being generated. Encourage students to keep thinking, even though they feel they have exhausted all possibilities. Studies show that our best ideas occur in the last twenty percent of all our ideas. The more ideas we generate, the more good ideas we produce! Ask questions to stimulate creative thinking, such as--can the suggestions listed on the board be grouped into categories? What will be the groupings? Are there suggestions on the board that will not work? Why will they not work? What are the three most creative suggestions? Which suggestion will take the most effort to create, the least? Which suggestion would you like to use today to replicate the star fort pattern?

- Duplicate the star fort pattern using one or more of the suggestions given by students.

NOTE: Kindergarten and first grade students may need to break the star pattern down into V-shaped segments (star points) by counting the number of V's (is it a five, six, eight point star?). Next, students will make the desired number of V shapes with flexible angles (no rigid construction) and then combine the V's into a star shaped design. NOTE: If the joints of the V's are not flexible, the angles may be wrong for forming an eight pointed star shape.

The Great Bridge

Objective:

To build a scale model of the great bridge

Target Ages:

Grades 4-12

Class Orientation:

Small teams or pairs

Time Needed:

Varies, at least three 45 minutes, classroom sessions, more detailed projects can be finished as home-work assignments.

Materials:

- Graph paper
- Rulers
- Balsa wood dowels or sticks (purchase at a hobby store) or chopsticks, craft sticks, Lincoln logs, etc.
- "Bridge Footings Slip" article

While at the Mount:

Notice the log on display in the Visitor Center. These pine logs are so well preserved because they were at the bottom of the lake for more than two centuries.

Activity:

Using the balsa wood "timbers," or other materials, make a replica of the Great Bridge. Try to make the bridge as accurately as possible using information given in the text of this chapter and in the article "Bridge Footings Slip." REMEMBER: the distance across the lake between the two forts is 700+ feet and the greatest depth of the lake is approximately 25 feet.

Additional Activities:

- Devise an alternative bridge design for the Great Bridge. Draw up plans or make a model.
- Read the article "Bridge Footing Slip". Using the verbal descriptions of the three logs given in the article, make a scale drawing of each log showing dimensions and details of notching. Using a map of Lake Champlain, place a dot showing the place each log was found along the lake shoreline.
- Consider another bridge such as the Champlain Bridge between Crown Point, New York and Chimney Point, Vermont. Make a sketch of the bridge. Determine what materials and method of construction were used. Compare this bridge to the great bridge at Mount Independence. What differences can you see? What elements do all bridges have in common?



Whispered Echoes from the Mount:

An awed German officer later termed [the Great Bridge] one of the seven wonders of the modern world and it was Baldwin's crowning achievement.

(Ketchum,nd:2-3)

Resources:

Ketchum, Richard. "The Ghosts of Mount Independence", Keynote Address, Dedication of Visitor's Center, Mount Independence, July 27, 1996.

"Bridge Footings Slip," Mount Independence Coalition Courier Newsletter

A History of the Town of Orwell, Vermont, compiled and published by the Orwell Historical Society, 1988.

Baldwin, Jeduthan. "The Revolutionary War Journal" excerpts, 1776-77.

Bridge Footings Slip

Author Unknown

July 28, 1991 at the northern end of Mount Independence, a log was found floating near the shore. It was examined by members of the Department of Historic Preservation, officials from the Fort Ticonderoga Association, various re-enactors and citizens who were present for the special weekend event called the "Soldier's Celebration." The features of the log indicated that it had been fashioned by hand and constructed in such a way as to interlock with other pieces of similar design. In other words, it resembled a very large Lincoln log. Speculation among those who viewed it ran high as to the origin and purpose of this log. The consensus was that it could well be a log from the sunken piers that had supported the twelve foot wide bridge that had connected Mount Independence with Fort Ti in 1777. Thaddeus Kosciuszko had directed the construction of twenty-two caissons which had been built on the ice of Lake Champlain during the winter of 1776-77. In the spring, each of them sunk to the bottom of the lake to form piers upon which the bridge rested.

The log was approximately twenty-three feet in length, pointed at one end and notched in the middle on one side. Both ends were deeply notched, leaving only a very thin layer of wood between the notches in the log. Obviously, this timber had been used in some sort of construction designed to interlock with other pieces. The log was secured to the shore until a boat could be brought to tow it to a safer location. Eventually, it was brought to Teachout's Point where the Ticonderoga Ferry operates from and secured there in the water. It remained there until the late fall of 1991, when it was removed to Chimney Point by the DHP. At this time it still is at the Chimney Point site, but there are plans to move it to Plymouth, Vermont and store it under cover there until such time as it is determined how to preserve it and exhibit it.

Meanwhile, Bruce Hedin, a Board member of the Mount Independence Coalition, realized that he had found another log of similar configuration the previous October in Catfish Bay. He brought this to the attention of the President of MIC, Bernie Noble. Both of them went to Catfish Bay in September of 1991 to examine the second log more closely.

Measurements were done on the log, detailed drawings were made and photographs were taken in order to document the artifact. The Catfish Bay log was quite different from the one which floated ashore in July. Although of approximately the same length (23' 2"), it had been notched in a very different fashion. Both ends of the log had been worked. The northern end had been pointed like a sharpened pencil. It showed some signs of having been burnt. All four sides had been hewed flat. On the western face of the north end, there is a notch approximately 2" deep by 10 1/2" wide containing two squarish peg holes. Each hole is about 2". The first peg hole is 6 1/2" deep and contained a peg which could be removed. The second hole went clear through the log and still contained the original peg in it. Near the middle of the log there were two notches cut on opposite sides of the log. One was slightly offset from the other by about 4". The west face of the middle notch revealed another peg hole 8 1/4" deep. This one did not go all the way through the log. This notch was fairly shallow, being only about 1" deep. The notch on the east face of the log opposite this one was deeper (4") and was wider (15"). The southern end of the log was badly rotted. Yet it showed similar workings as the northern end. It appeared to be pointed, was worked on at least two sides, and had two peg holes, one of which went clear through the log and the other which did not. On both ends of the log, it is the inside peg hole which goes all the way through the log. This log remains secured in place at Catfish Bay. The DHP and MIC are discussing plans for its removal and transport to Plymouth along with the July log.

Since the discovery of these two logs, a third one has surfaced on the shores of Lake Champlain on the New York side near Fort Ti. This particular log has not been studied and documented by MIC as had the other two logs. Officials of the Fort Ticonderoga Association [will only] say that it very much resembles the Catfish Bay log in its construction.

Without more study and more sampling, nothing can be determined for certain about how these two logs were used to build the cribs for the floating bridge. They do raise some interesting questions about the construction of those footings for the twelve foot wide bridge that connected Fort Ti with Mount Independence. This summer, Art Cohn from the Lake Champlain Maritime Museum is supposed to make a number of dives on those cribs. Perhaps he will be able to gather additional data on their construction, and, with the three timbers which have surfaced and been studied recently, we can begin to piece together just how the bridge caissons were constructed.

Objective:

To use problem solving and creative thinking skills to design an efficient floor plan for the large hospital at Mount Independence.

Target Ages:

Grades 4-12.

Class Orientation:

Whole class and small groups

Time Needed:

Two 45 minute class periods, one class period for brainstorming as a class (with a doctor, nurse, or other hospital employee) and one class period for working in groups to develop hospital room plans.

Materials:

- Hospital diagram on this page
- Hospital employee as resource person

While at the Mount:

Walk the trail to the hospital site. Notice the foundation stones still visible in long rows. To the south of the hospital lies a large excavated area. Is this the cellar hole for the hospital addition that was being built at the time of St. Clair's evacuation?

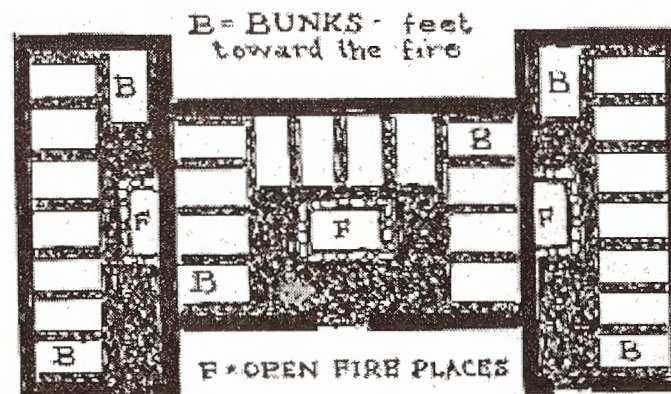
The Hospital

Introduction:

The 1989 excavation at a hospital site on Mount Independence did not uncover enough artifacts to determine specific use areas within the hospital, such as surgical, apothecary, dormitory, kitchen, etc.

Activities:

- Using the hospital diagram, draw up interior room plans. Get information from a hospital employee about rooms or activity centers that they believe need to be next to one another.
- Invite a doctor or nurse to talk about how medical practices have changed since colonial times and/or how medical practices have changed during their lifetime or career.



Typical Plan of
Continental Army
Hospital

Whispered Echoes from the Mount:

*visited t h e
Hospital at Mount
Independence,
the new Hospital
about one third cov-
ered....250 long &
24 wide...ward and
pleasant...*

Weeden 1776

Suggested Resources:

Starbuck, David. "The Revolutionary
War Hospital at Mount
Independence., ms. nd.

Starbuck, David et. al., "Mount
Independence 1989 Archeological
Report." 1991, Vermont Division for
Historic Preservation, Montpelier, VT.

- View videoclips from M.A.S.H. or another movie showing medical humor.
Discuss the need for humor in the midst of tragedy.

Objective:

To evaluate a given situation and plan a response, using collaborative reasoning

Target Ages:

Grades 4-8

Class Orientation:

Teams of 4 persons

Time Needed:

45 minutes

Materials:

- Topographic map of Mount Independence. (In Museum Kit) 
- Vermont road map. (In Museum Kit) 
- invasion card sheet (Attached)

While at the Mount:

While walking the trails, think of ways you would fortify existing natural barriers such as deep ravines and marshy areas.

Now That I'm In Command

Introduction:

Military engineers paid special attention to the topography and natural features of a proposed fortification site. Mount Independence was scouted from the water and carefully inspected on foot by groups of military officers and, of course, Chief Engineer Jeduthan before fortification plans were drawn up. Manmade structures and earthenworks were constructed to maximize the advantages provided by elevated hilltops, swampy lowlands, rocky cliffs and bodies of water. Students will use problem solving skills to determine the most advantageous ways to visualize the topography of Mount Independence to forestall a variety of invasions.

Activity:

- Each group should cut out the invasion cards, shuffle them and draw one. The group will then plan defensive fortification to stop the invasion or natural disaster using the topographic map of Mount Independence and the Vermont road map. Strategic areas to fortify are: hilltops, areas with good views of the travel routes, bridges, road intersections. Some possible questions to ask in the group are:
 - Will team members have different roles?
 - Will we need a leader?
 - What are the likely routes of travel?
 - From what direction will the enemy or disaster approach?
 - What defense tactics will be useful?
 - Should existing structures be removed (such as bridges)?

Notes:

- Should land be cleared or contoured?
- How should existing buildings be used?
- Determine the location and design of fortifications to combat different invasions or disasters. Use your imagination. For example, in the 1970s a clever eastern European group misled advancing enemy troops for days by shuffling road and street signs and sending their attackers in the wrong direction!

Invasion Card Sheet

Rabid Raccoons Advancing from The South	Gypsy Moths Munch Eastward	Toxic Oil Spill in East Creek
Flying Locusts Cloud Western Sky	Toxic Toads Invade From East Creek	Airborne Virus Carried on Strong Easterly Winds
Alien Spaceship Hovers over Orwell	Angry Tourist Blocks Road to Mount Independence Visitor Center	Family In RV Carrying Bubonic Plague

Objective:

To learn about measuring instruments used by colonial engineers

Target Ages:

K-12 (varies with activity)

Class Orientation:

Individual or teams

Time Needed:

One class period to make instruments
& one to use instruments

Materials:

- Cardboard or foamcore
- Brads
- Wooden dowel
- Protractor
- Staple or glue
- Thread
- Sewing needle or awl
- Weight

Where's My Theodiler?

Surveying Instruments: Mapping the Mount

Introduction:

Jeduthan Baldwin was not a happy man when malcontents stole parts of his compass and broke the rest. He also lamented his missing "theodiler." These tools were vital to his job as Chief Engineer at Mount Independence. Without them, he could not mark roads, as he recorded doing on July 10, 1776 before his equipment was stolen.

Somehow, he and his team of "carpenters" and "artificers" as he refers to them, persevered and Mount Independence saw the construction of field hospitals, the star fort, block houses, storage facilities, roads, the crane, and more. Obviously, Baldwin was able to procure replacements for stolen, lost or damaged tools.

Surveyor skills were as important to the 18th century American as they are to us today. The slightest mistake could mark land incorrectly leading to law suits, feuds, or even wars. Often, because the reputation of a surveyor had to be impeccable and free of reproach, judges and town justice of the peace, politicians, or military officers were surveyors. The public deemed these men to be impartial and honorable. It is also quite likely that they were educated in mathematics and writing and could afford the cost of the surveying equipment.

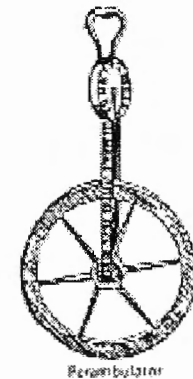
In order to map accurately, standard measuring devices were used. Smiths forged iron links (7.92" long) and connected 100 of them together to form a surveyor's chain. Common chains were 66' long, or four rods. Land was measured in rods in the 18th century. For mapping the wilderness, in densely-forested areas, surveyors might use 33' long chains (two rods) that were easier to extend in crowded spaces. A surveyor also needed a staff upon which to perch his compass, or a wooden tripod which was free-standing. His equipment was small enough that it could

Notes:

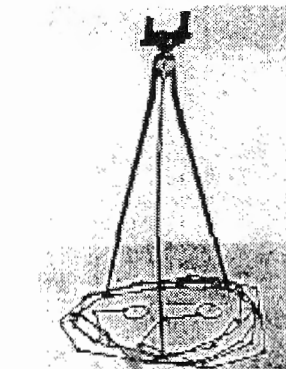
be carried easily in a haversack or pack basket. A perambulator was used to walk the imaginary line "drawn" by the team, and check the chain's measurements. Corners were marked much as they are today with stakes or pipes. Often, however, natural features were used as points of reference. Trees, rocks, and streams might be recorded as boundaries. The problem here is obvious; trees fall, rocks may shift, streams alter their course.

A surveying team was made up of chief surveyor and a few attendants, a deputy who wrote findings, rear chain carrier and head chain carrier, and a rodman responsible for bearing the marker. In addition to these tasks, team members cleared obstructions when necessary and pulled the chain as taut as possible to ensure greater accuracy. Jeduthan Baldwin, in his journal, refers frequently to the men who worked with him as his team--he included builders and artisans like smiths on this team.

Considering the things that could cause imperfect readings, 18th-century surveying teams were rather accurate. However, chains could only be pulled so tight, and there was inevitable "swagging" that added to the measure as the chain bowed in the center toward the ground. Large obstructions, such as trees or boulders, that could not be moved caused lines to be bent. Compasses suffered jostling in haversacks over rough trails. While 18th-century compasses were built to be sturdy, they were still precision instruments that could be dented, broken, lose their magnetism, leak, etc. Hidden iron ore or naturally-occurring lodestone deposits could throw off measurements. Weather could also affect readings as could time of year. Surveying done in the early spring, when trees



Perambulator



Samuel Lane's Surveying Instruments,
Tripod and Chain.



Grades K-2

Grades 3-8

Grades 6-12

are bare of leaves and heavy snow, is truer than work completed when the trees are covered with leaves. Not surprisingly, the sudden appearance of bees, bears, black flies and other startled creatures contributed to the problems and dangers of map making.

For all the pitfalls, 18th century surveying was remarkably well-done. Many of the plans created 200 years ago still stand as accurate testaments to the surveying teams who created them.

Activities:

- Have students measure things in the classroom or school grounds using non-standard and standard units. Have students guess how large they think something is and compare their guess with their results.
- Can students identify the boundaries of their school's property? Is there a fence, sidewalk, parking lot, cow pasture, etc., that delineates the area? Have students create perambulators of their own and walk the property line. To create a perambulator, students will need rigid circles, with a circumference of two feet. Push a brass paper holder through the center and attach the rigid circle to a balsa stake. On the circle, draw a radius out from the center to the edge. This line should be lined up with the stake to begin measuring. Have one student walk slowly and roll the perambulator over the floor or ground. A team of others should count how many times the line rotates past the stake. Using this system, have students measure hallways, or other features.
- Vocabulary exercise: have students find out the meanings of the following, and apply them to measuring objects in their class, school, house, yard, etc.

Furlong	Meter	Kilometer	Ell	Pole
Quintal	Cubit	Tun	Rood	Fathom



7

“A Most Sorrowful Condition”

**Health, Ailments, and Cures
of the 18th-Century Army on
Mount Independence**

“A Most Sorrowful Condition”

Health, Ailments & Cures of the 18th-Century Army on Mount Independence

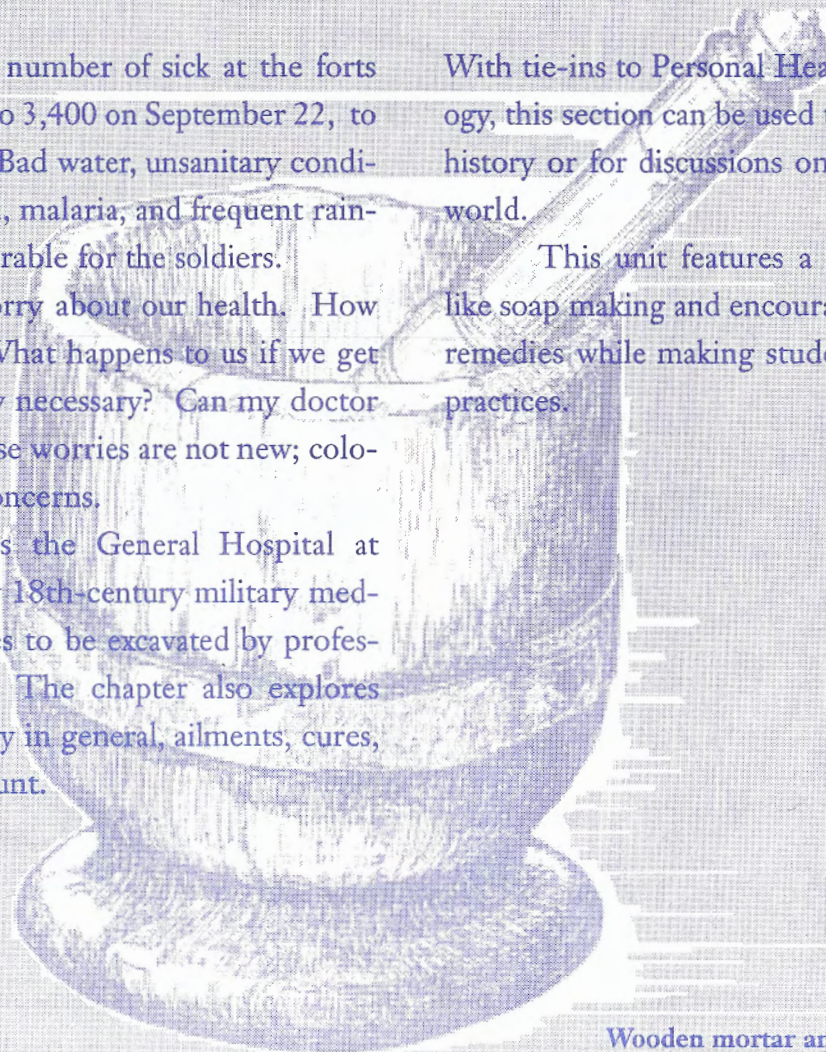
In the fall of 1776, the number of sick at the forts rose from 1,878 on August 24, to 3,400 on September 22, to more than 4,000 a week later. Bad water, unsanitary conditions, insufficient food, typhoid, malaria, and frequent rainfall combined to make life miserable for the soldiers.

In today's world, we worry about our health. How can we afford medical care? What happens to us if we get sick? Are immunizations really necessary? Can my doctor really help me get better? These worries are not new; colonial Americans had the same concerns.

This section introduces the General Hospital at Mount Independence, the only 18th-century military medical facility in the United States to be excavated by professional archaeologists to date. The chapter also explores health issues of the 18th century in general, ailments, cures, and techniques used at the Mount.

With tie-ins to Personal Health curriculum, as well as biology, this section can be used to enhance studies of American history or for discussions on modern medicine around the world.

This unit features a number of hands-on activities like soap making and encourages discovery of natural health remedies while making students aware of their own health practices.



Wooden mortar and pestle. From [The Revolutionary Soldier](#) by Keith Wilbur

In our world of managed health care, wonder drugs, and radical lifesaving medical procedures, it is sometimes impossible to imagine life without what we take for granted: antibiotics, chemotherapy, laser surgery, immunizations made available to everyone. The average life span of an American is about 76 years. In 1777, however, 50 was considered old, not middle-aged. People led hard lives, full of danger and disease. Infant mortality was extremely high; women died so often during childbirth that it was not unusual for a man to have three wives die. In 1777, medical care, had, of course, come a long way from its ancient beginnings, but it is almost terrifying to look back upon common, accepted medical practice and how anyone could survive!

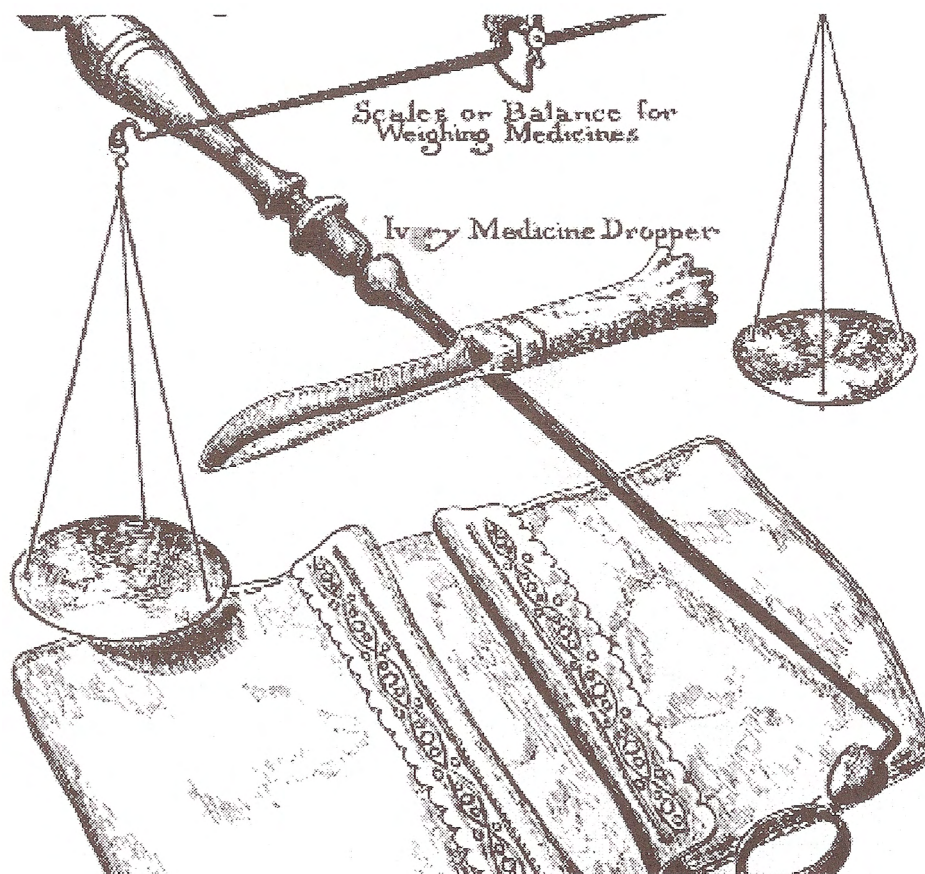
Consider the basics: personal hygiene was not at all what it is today. Orders were given to soldiers to bathe their entire bodies twice a week; three times was better, whether they

wanted to or not! But these orders were resisted. Eighteenth-century people believed it was unhealthy to immerse oneself in water, so bathing was limited to strategically placed splashes. (Next time you're in an antique

shop, ask to see a bowl and pitcher. These were commonly used into the 20th century as "bath tubs," not for food and drink!) Bathing was thought to remove protective oils from the skin which would let sickness invade the body, so it was not encouraged. Washing hair was "downright suicide." Without the luxury of hair driers, anyone who washed his hair had to dry it close to a fire lest he

catch a chill, head

cold, and die! Singed hair or eyebrows were not uncommon. Bathing was likely an uncomfortable event any way you look at it. Soap was made of lye, animal fat, beeswax, and



From: The Revolutionary Soldier by Wilbur

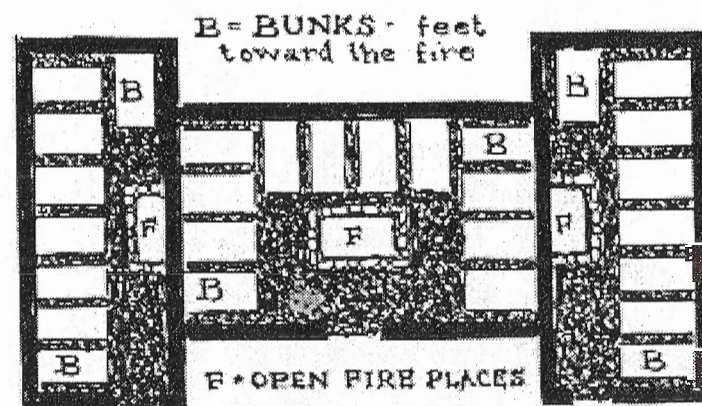
potash. This could not have been particularly gentle to the skin. Using a bowl and pitcher meant strategically splashing water in an effort to clean up. But if you had a tub large enough in which to immerse yourself, you really weren't all that lucky. Having to lug water from distant wells or water sources, heat it if you expected a warm bath, and then removing the dirtied water added up to one miserable experience! Another hygienic difference between 20th- and 18th-century people is that while we probably have more than ten sets of socks and underwear, colonial Americans had two, maybe. Undergarments were worn all the time. In the day, a layer of clothes served as underwear; by night, the same clothing was used for pajamas. You probably had a change of clothes, but it may have been for church services or special occasions. Unless you were very wealthy, lots of clothes were not a priority. Keep in mind that had you lived in 1777, you would have smelled pretty awful. The good news is so did everyone else. And you could always use snuff or carry a nosegay to ward away the stench of sewage, or your neighbor!

Medical Practices of the 18th Century

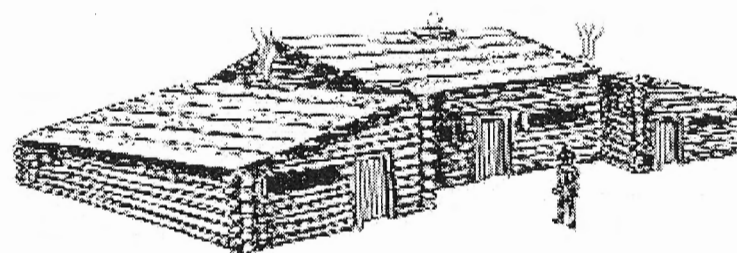
Poor hygiene, such as not washing one's hands, spreads germs very quickly. In the 18th century, even doctors did not understand the value of washing their hands. During treatments after a battle, a doctor in a hurry would leave the bed of one patient and move directly to the bed of another, without stopping to disinfect his hands. Soldiers sleeping in close quarters shared ailments and parasites at an alarming rate. Poor diet,

exposure to new illnesses, spoiled food, tainted water, weather, and so forth, all contributed to the generally horrible condition of the soldier at the Mount.

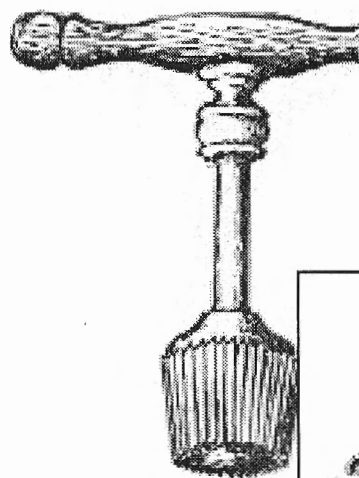
Sadly, many of the soldier's problems with his health care were the result of poor medical training or inappropriate practices due to a lack of scientific knowledge. In fact, of the approximately 3,500 practicing physicians in the 13 colonies in 1775, fewer than 300 had medical degrees. Nearly all of the trained physicians had studied in Europe where they learned a



Typical layout of a Continental Army hospital. Notice beds (B) placed around and near fireplaces (F).

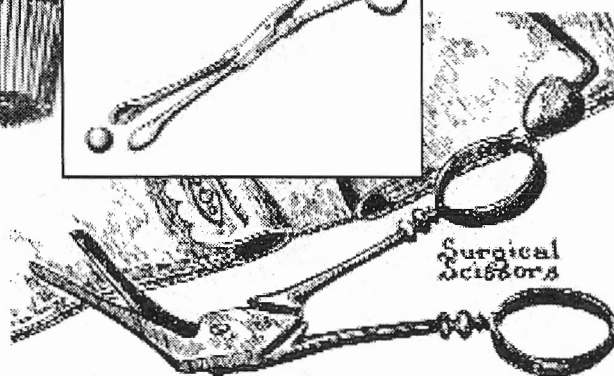
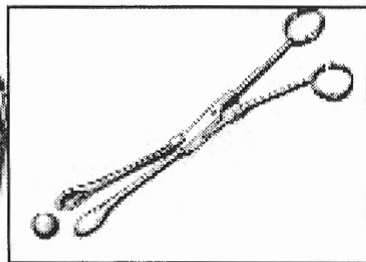


great deal about theory, but had never seen live patients or dissected cadavers. The majority of American doctors were, therefore, trained in an apprenticeship under a more



Tools of the 18th-century surgeon included medical scissors, which were used to relieve blood pressure, and an extractor, which removed musketballs from places that fingers could not reach.

From: The Revolutionary Soldier by C. Keith Wilbur.



experienced physician, who probably had no formal training either.

It seems that the only skill required of a budding doctor was the ability to stand the sight of carnage. However, in a time when women routinely died in childbirth, it was unseemly for a male physician to attend a woman in labor. Children were brought into the world by a woman's mother, sister, close friend, or a midwife. Because of the practical experience of these women, the

mother-to-be, probably stood as good a chance of surviving childbirth as she did had the birth been attended by a doctor.

As the Revolution began to pick up steam, American physicians joined their local regiments en masse. They widely embraced the cause of freedom and most served willingly and faithfully. About this time, medical training was becoming more sophisticated, as cadavers of suicides, executed prisoners, and indigents were used to teach anatomy and more formal training centers were opening. In 1775, the Continental Army Medical Corps was established to incorporate medical care as a regular part of a soldier's life.

Organized medicine was a difficult concept for colonists to embrace. Only in New York City and Philadelphia did hospitals exist, and they were only for the poor or homeless who could not afford to have a doctor treat them at home. Medical facilities of the 18th century were not houses of healing, but places where people went so as not to die out-of-doors. However, with government regulation of Army medical care, came field hospitals. Initially, they were small, usually tents, where men could be separated by ailment. Field doctors knew this separation helped save lives, but often they didn't know why.

The Army Tries Organized Medicine

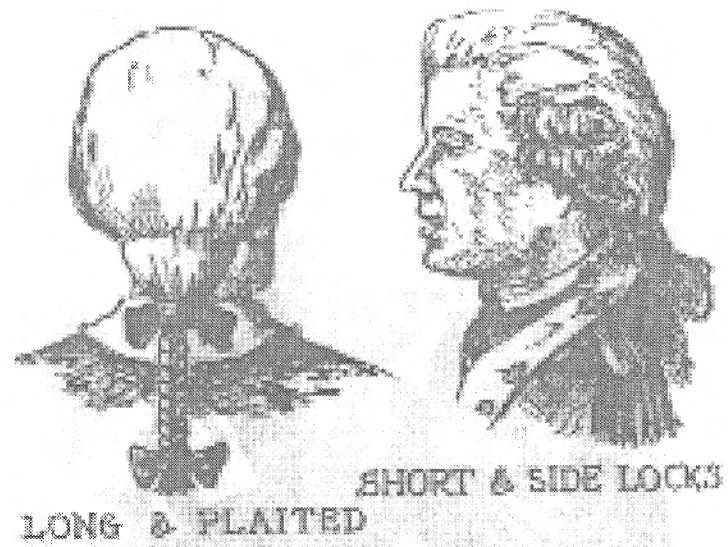
It is also important to note that for the early part of the war, regimental surgeons were just that, regimental. They joined to march with their friends and neighbors, and answered their regimental leader, not the Continental Congress. But during the

occupation of Mount Independence, there were two different Director-Generals of the Continental Hospital (the word “hospital” here does not refer to a building; it is the health care system itself)--John Morgan, from October 1775 to January 1777, and William Shippen, from April 1777 to January 1781.

Each man had his own administrative style, and his share of scandal. Morgan, an autonomous leader, required field surgeons to provide triage care only, patching the wounded and sending patients to a permanent military hospital. Doctors at the front felt they were doing all the work and John Morgan’s precious hospitals were getting all the credit. Additional resentment came when Morgan began to tightly control the previously easy access to medicine and provisions field doctors had come to enjoy. Director-General Morgan saw their requests as frivolous and wasteful, and he enforced strict regulations to stop what he called in a letter to George Washington, the free drawing “from medicines, stores, etc., in the most profane and extravagant manner for private purposes” by the regimental surgeons. In retaliation, field doctors began sending patients with infectious diseases to the Army hospitals, letting their urban counterparts know how hard it was in the field.

Morgan kept too tight a rein on his doctors. He insisted that they could dispense medicines only in moderation, and that any requisitions had to be made directly through their regimental quartermasters. This slowed the flow of supplies in red tape and limited what doctors could acquire. Morgan was also responsible for large permanent general hospitals being erected. He felt they could be more efficiently manned and adminis-

tered. Field doctors disagreed, complaining that permanent structures had no ventilation, that men needed to be separated by ailment, and that tents could be moved from tainted sites, washed easily, burned if necessary. Finally, so many letters of complaint had been written to the Congress that it investigated Morgan and fired him in 1777, though it later admitted he had never been found guilty of any wrongdoings.



Acceptable hair styles for 18th-century Soldiers
From: The Revolutionary Soldier by C. Keith Wilbur.

William Shippen promised to be different from his predecessor and rival, Morgan. This ambitious man apparently was more concerned with what people thought of him than what he actually did. He falsified hospital records during Morgan’s administration so he would appear more efficient than Morgan! His claims of numerous recoveries were too good to be true,

since Shippen had little regard for cleanliness and he saw no problems with overcrowding. His administration was fraught with scandal as well, and he eventually resigned.

Despite the hindrance of politics, somehow, regimental doctors persevered. When shortages of professionally produced medicines occurred, physicians trained in apprenticeships, turned to the woods for their remedies. They knew how to collect and preserve roots, buds, seeds, minerals, leaves, and the like to create natural medicines. At every camp, there was a stone tablet for crushing herbs, and a boiling pot of water with which to make medicinal teas. Doctors tried hard to convince their charges to eat well, fruits and vegetables when possible, and tried to make them follow basic hygiene regimes. Official orders were written for the regular soldier: he must wash his hands once a day, shave and bathe twice a week, keep his hair short and tied back, and keep his clothes in neat appearance. (It is interesting to note that officers, American and British alike, were required to powder their hair while on duty. This must have been most unpleasant when talc was in short supply and white flour was substituted. What a feast for flour bugs!) Since so many soldiers were prone to the “Itch” or impetigo, they were told not to keep on wet clothes or to sleep on the bare ground. (What they did without a change of clothes, or where they slept if they had no bedroll, can only be guessed.) Hoping to keep his regiment at the Mount healthy and comfortable, American Major David Rhea gave orders that his men were to keep their tents clean and free of “filth & dirt,” and soldiers could not leave the encampment until tents were clean and

inspected by an officer.

Beyond efforts to keep individuals relatively clean, were massive attempts to keep camps clean as well. Garbage pits were dug away from ground water, although there was likely to have been some leeching of biological contaminants anyway. Bedding was boiled when it became infested with vermin; if it was beyond saving, it was burned. Latrines were dug on the cliff edges so as to drain away from living quarters. Any non-commissioned soldier who was caught committing “any nastiness in or about the Camp, other than the Vaults or necessary Houses prepar’d for the Purpose, shall receive 20 Lashes on his bare Back for every such Offence” (Munsell). We do not know what punishment officers received for the same offense. Men were not permitted to draw water from too near to shore in an attempt to avoid contamination from human waste and garbage that hung close to shore.

Despite these efforts, many died. Six out of seven deaths of soldiers were due to disease rather than injury, but other common causes of death were the obvious wounds and accidents. However, a soldier was much more likely to die from infection or his treatment than he was to die in battle. “The Revolutionary soldier had an enemy he had not counted upon—symptomatic treatment by his physician” (Wilbur).

The Humors and Other Imbalances

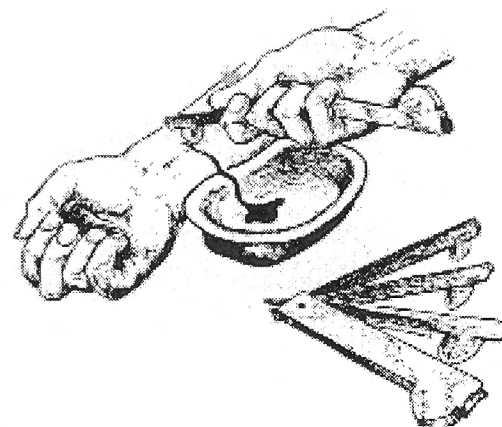
In the 1770s people still adhered to the old belief in the balance of the four humors. These humors, or more rightly,

bodily fluids, were blood, phlegm, black bile, and yellow bile. It was believed that sickness occurred when the amount of one of these humors was raised in the body by emotions, fatigue, or exposure. Naturally, the treatment for too much of a humor was to reduce the amount. If symptoms indicated too much blood, bleeding took place. Using a lancet, doctors opened a vein longitudinally and allowed blood to flow from the wound. The blood was caught in a bleeding bowl. The process would be repeated until the patient showed improvement or died. To reduce phlegm, sweating was induced either through medicine or heat. Bile was eliminated through purging; this meant a sick person ingested a remedy (ipecac for one) that induced vomiting until the bile was clear. Other treatments involved enemas to evacuate the bowels.

If these common treatments did not show desired results, and the patient was still alive, stimulation was often the next step. Stimulation of nerves and muscles was believed to have curative powers. Patients could expect to experience blistering (burning with a hot poker-like implement) meant to move the source of the ailment from where it was to the blister. Sadly, blisters often became infected and festered. Patients who survived this might expect cupping, the heating of glass cups that are then attached to the flesh of the patient to draw out the sickness. All of these treatments took place while the patient was fed a "low diet" (water fortified with barley or milk) and alcohol. Always, there was alcohol.

As standard medical practice, alcohol was administered liberally to patients, sometimes as much as three bottles of wine

a day. There is indeed some value in this that cannot be ignored. Alcohol has germ killing properties. French physician Dr. Jean Francois Coste strove to keep his men healthy by requiring rum to be added to their water supplies. He knew the alcohol would kill germs in the stagnant well water and reduce incidences of dysentery. Alcohol induces, in some, sweating or vomiting. It acts as a pain killer. It warms the extremities and allows for



Bloodletting.

From: The Revolutionary Soldier by C. Keith Wilbur.

enhanced blood flow. And, to be honest, it was a comfort for men who were scared, sick, and lonely.

It is easy to see why these soldiers might have cause to be fearful. In addition to the practices mentioned above, doctors had other techniques for healing. Any limb that received a compound fracture was automatically amputated. Doctors were sure that once the bone had protruded from the skin, the limb was not worth saving. Without anesthesia, men were held down by doctors' boys and given a musket ball to chew on so they could not bite off their own tongues or scream easily. Impressions of teeth can be seen on some of the lead musket balls in the Mount's artifact collection. Frostbitten fingers and

toes went the way of the compound fracture. And because any amputated tissue remains have long since decayed, no one can be sure about tips of noses or ears, but the common appearance of faces mutilated by amputation of frostbitten tissue was documented in photographs almost 100 years later during the Civil War (Manassas Battlefield Museum).

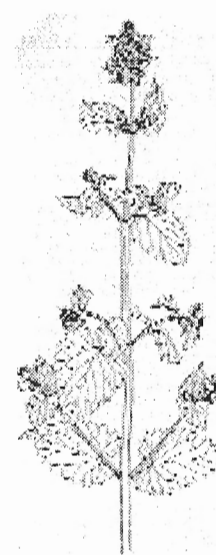
Helpful Natural Techniques

Colonel Anthony Wayne, commander of troops at Fort Ticonderoga and Mount Independence, wrote in May 1777 that his men were regaining health and that the hospital gardens were flourishing. As many medicinal plants did not occur in the wilds of Vermont, the garden was akin to our modern medicine cabinet.

An immunization for smallpox was routinely given to soldiers and camp followers. Using a porcupine quill, a doctor lanced the inflamed pox of a sufferer of the illness. After removing some of the ooze from the pox, he transferred it, via the point of the quill, into the arm of a healthy soldier. Later, many of those inoculated did suffer mild cases of smallpox, but this method of immunization was most effective. German General Riedesel so believed in it that he insisted his wife and three young daughters, who accompanied him on his campaign, be immunized against the dread disease at the same time he was.

While we may find them repulsive, leeches, which are still common in the swampy lands of western Vermont, were viewed as medical helpers. Physicians kept them on hand to suck out excess blood from an injury and thus reduce swelling,

or drain infections. Ironically, however, maggots were scrubbed from gangrenous wounds by medical personnel who believed they were helping their patients by removing the pests. We now know that maggots only eat putrid flesh and leave healthy tissue alone. Had doctors allowed the tiny worm-like creatures to eat away at the dead flesh of wounded soldiers, it is possible fewer men would have died of infection or “blood poisoning.”



Catnip tea induces sleep in fever, soothes colic and hysterics. From All About Weeds.

The Mount

When Mount Independence was occupied, a few smaller hospitals were used but as described, the hospitals at the Mount were not places where men went to get well. In a letter to Horatio Gates dated December 1776, Colonel Anthony Wayne wrote that the hospital:

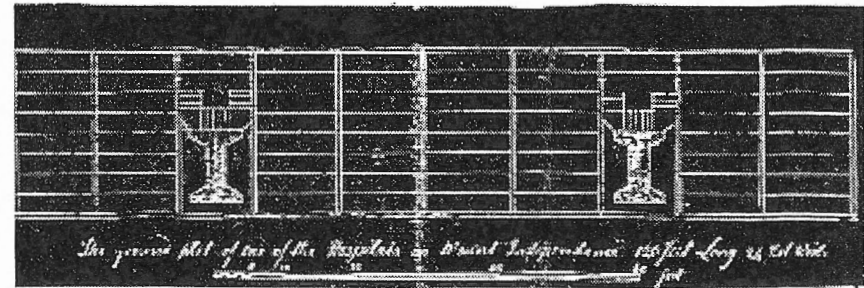
or rather house of carnage was shocking, with no medicine or regimen on the ground suitable for the sick; no beds or straw to lay on; no covering to keep them warm, other than their own wretched clothing.

That winter of 1776-1777, with weather worse than at Valley Forge, many men froze to death as they had poor supplies, lacked warm clothing, and slept in tents. But in early spring 1777, Congress authorized the construction of a larger, permanent general hospital on the Mount. It was one of three large facilities in the north, the other two being at Albany and Fort George, and vitally needed if the enemy were to advance south. Doctor Potts, the director of the Northeastern Army Medical Corps, forwarded John Morgan's orders for a large, two-story structure to be built on Mount Independence.

The hospital was built by workers overseen by Chief Engineer Jeduthan Baldwin. It took three months to raise. Based on Baldwin's descriptions in his journal, the building served as more than a haven for the fallen. Numerous accounts of dining at the hospital are recorded. It is also clear that the dining was attended by officers, and an occasional wife, but not the common soldier.

When the British lay siege to Mount Independence in July 1777, all but four of the hospital's patients were loaded onto bateaux on Lake Champlain, along with as many supplies as could be gathered, and sent south. The four left behind were deemed too ill to move. (This researcher has found no mention of their fate, although Burgoyne's letters do indeed verify that

the four were abandoned on the Mount.) The general hospital building, intended to hold up to 600, was in the hands of the



**Mount Independence Hospital Layout
from Baldwin's Papers**

British. Very quickly, the hospital was of utmost use to the British who pursued the fleeing American troops to Hubbardton where a battle ensued. Thirty-four wounded, including some Americans, were brought by German soldiers to the Mount where they received medical attention.

Modern archaeological investigation of the site of the former hospital reveals that at the time of the British invasion, a wing was being built. It was never finished. The outline of the building remains clearly marked, but the actual structure was burned to the ground by the retreating British when they fled in November 1777. Artifacts gathered from the site indicate that doctors stored wine here, dispensed medicine for treatment elsewhere, and that cows were butchered close by. Interestingly, aside from an insane asylum in Williamsburg, Virginia, the general hospital on Mount Independence is the only 18th-century

American medical facility to have been professionally excavated, and it is the only military medical facility studied. Yet for all the research, the Mount Independence hospital remains a mystery.

What we don't know about the site dwarfs what we do know. Where is the garbage pit? Where were amputated limbs disposed of? Where were the dead buried? Were graves individual or group? Were there female nurses at the Mount? Did the officers wives work at the hospital? How many patients slept here, if any at all? So many questions still to be answered

Resources

Herwig, Hiram and Wes, Ed., Jonathan Carpenter's Journal: Being the Diary of a Revolutionary War Soldier and Pioneer Settler of Vermont, 1774-1788. A Greenhills Book, Randolph Center, VT, 1994.

Holdbrook, Eric, "The Mount Independence Hospital," student research paper for David Starbuck's fall 1989 archaeology lab course.

Lockie, Dr. Andrew and Dr. Nicola Geddes, Homeopathy: The Principles and Practice of Treatment. DK Publishing, New York, NY, 1995.

Wilbur, C Keith, Revolutionary Medicine, 1700-1800. Pequot Press, Old Saybrook, CT, 1991.

Jonathan Carpenter's Journal: Being the Diary of a Revolutionary War Soldier and Pioneer Settler of Vermont, 1774-1788, A Greenhills Book, Randolph Center, VT, 1994.

<http://grid.let.rug.nl/~welling/usa/waldo.htm> - on-line journal excerpts by Albigen Waldo, surgeon at Valley Forge, 1777.

Objective:

Allow students to explore use of symbols as means of communication, practice a new writing system

Target Ages:

Grades 4-8

Class Orientation:

Whole class

Time Needed:

15-20 minutes

Materials:

- Handout
- Paper
- Pencil

Apothecaries

Introduction:

In the 18th century, there were, as today, distinct professions involved in medical care: the surgeon, the physician or doctor, and the apothecary. The surgeon was responsible for all traumatic invasive procedures which he usually performed in military or make-shift camp hospitals. The typical family doctor made house calls; it was considered improper and unseemly for a patient to go to a hospital when health care was part of home life. In the 1700s there were not many hospitals, and the ones that did exist were mostly for the insane or urban indigent.

Civilian doctors were assisted by nurses or members of a patient's family, while military surgeons were assisted by mates. A mate was a man, a soldier, someone in modern times we refer to as an operating room nurse or physician's assistant. While the training for medical professionals has improved dramatically since 1777, the roles of the surgeon and the doctor remain virtually unchanged, except for the omission of house calls. The 18th-century apothecary played a role similar to the one filled by today's pharmacist, but with an interesting twist. He often performed surgeries, prescribed medicines, and saw patients, unlike today's pharmacists!

An apothecary was a person (for this exercise, and for the sake of generalization, we'll say "a man" since most tradespeople were, in fact, men) who was in the business of making and selling remedies. Apothecaries were commonly found throughout Europe and the New World and were very often the only medical "professional" ill patients would go see. Many apothecaries had shops, just like any other store, where potential patients could drop in for remedies. There was no official training for apothecaries, no tests, no license. It wasn't until the American Revolution that regulation of apothecaries with regard to their activities involving military per-

Whispered Echoes from the Mount:

Found my Regiment in a most sorrowful condition, the remaining officers both Sick with the fever and Ague. Oh how the men changed, the Regiment did not look the same thing in flesh badly dressed spirits sank &c"

While at the Mount:

- Follow the trails past the location of the herb garden
- * Why do you think it is located here?
- * In the museum, find glass vials. What do you think doctors dispensed in them.

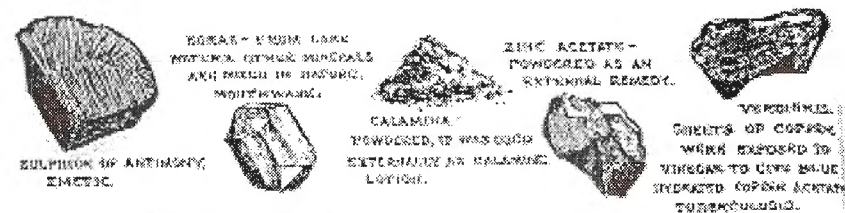
Most reputable apothecaries maintained shops where customers went with complaints. Apothecaries offered advice to customers who weren't certain what cure they needed, or supplied herbs and other ingredients to those who did. One could purchase aromatics, opiates, salves, oils, purges, pills, syrups, plasters, and torches made of natural matter, such as plants or minerals, that promised to cure all manner of ailment. In addition, apothecaries kept stores of confections and conserves for spiritual well-being and, we must assume, a contented palate.

Yet, for all his concern, the apothecary was in business to make money. He dispensed his remedies in glass vials and charged customers for these containers! Often, mysterious potions, containing unnamed ingredients were sold, over-the-counter, to the innocent consumer looking for love, wealth, popularity. Some so-called remedies were deadly as they contained lethal amounts of arsenic, night shade, and more. Without strict regulation, medicines even went bad and the cures themselves became one more danger to health.

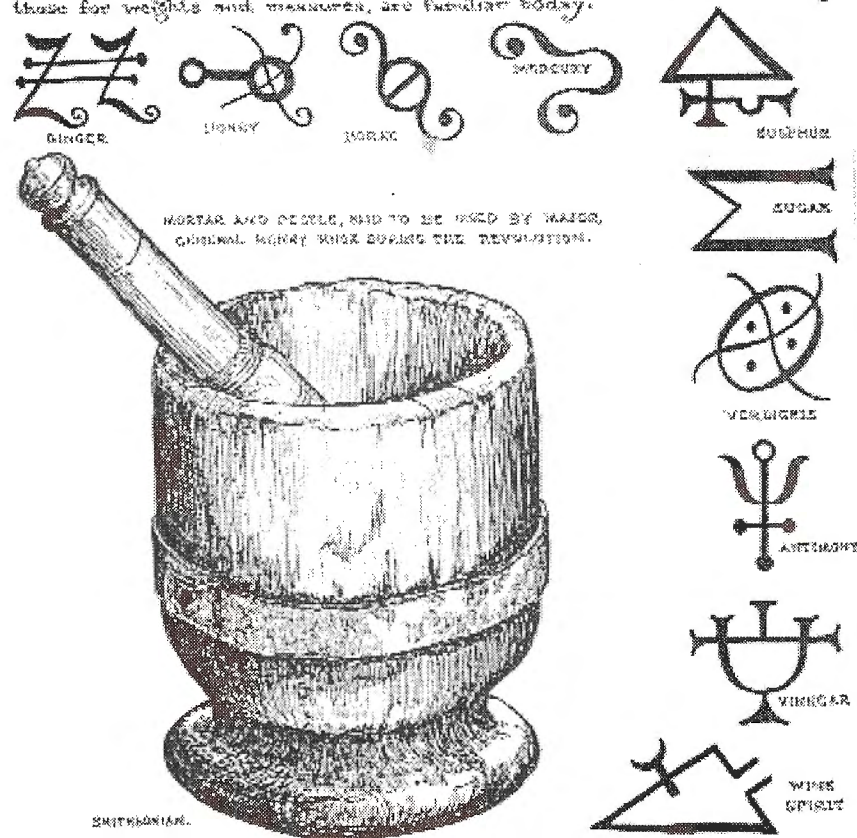
When we consider the limitations of Revolutionary War medicine, it is important to remember that, despite a high mortality rate, a great many patients did survive and went on to lead long, healthy lives. Medical practitioners were doing, for the most part, the best they could.

Activity:

- Just as they are today, prescriptions were written by lay-doctors or regular physicians who might not keep a particular remedy in stock. Look at the symbols on the attached page commonly used in the 18th century.
- Write a prescription using the symbols and pass it on to another student who should decode it.
- Imagine you are a doctor and your patient is suffering from an abscessed tooth. Write a prescription for one ounce of pulverized borax to gargle with a mixture of wine. What other prescriptions can you come up with? What ailments could they cure? Visit a local health food store or GNC or find a book on natural remedies for ideas.



SIGNS OF THE TIMES - The ancient symbols of alchemy found their way into the American Revolutionary period. A few, including those for weights and measures, are familiar today.



From: The Revolutionary Soldier 1775-1783, C. Keith Wilbur

Objective:

To learn how flora was used to remedy ailments

Target Ages:

Grades 4-8

Class Orientation:

Individual

Time Needed:

A few class periods to do research

Materials:

- Encyclopedia
- Herbal remedies books
- Jenkins, Jerry, "Flora of Mount Independence" brochure (In Museum Kit)



Natural Pharmacopoeia

Introduction:

The brochure "Flora of Mount Independence," documents the existence of the following plants on the Mount. From each, common remedies can be and were made to treat a variety of complaints:

Wild licorice, strawberry, pea and grape - obvious food sources

Nightshade - belladonna for fever, toothache, earache, tonsillitis

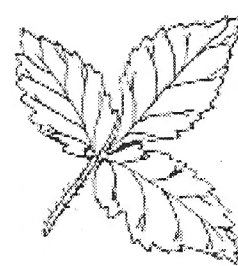
Catnip - tea made from it induces sleep in fever patients, sedative for hysteria, soothes colic

Dandelion - leaves are used in salad, dandelion wine, roots used to make liver cure

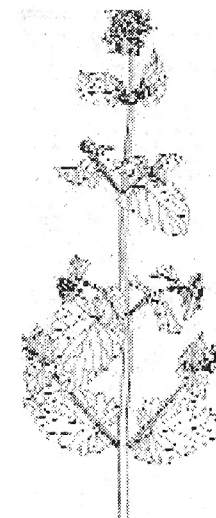
Yellow dock and curly dock - mild astringent, roots dried to make dentifrice

Daisy fleabane - its dried pulverized leaves are said to keep flies away

Wild lettuce - lettuce opium, lactucarium, is extracted from its leaves, used as laxative or diuretic



Wild Strawberry



Catnip

Motherwort - its leaves and flowers make a tonic given to pregnant women whose nerves are frayed

Moneywort - leaves are used to stop flow of blood from a wound

Heal-all - used in treating hemorrhages, diarrhea and dysentery, and as a gargle for sore throats

Rue - pills made from leaves' oil is given to sufferers of rheumatism

Boneset - pills made from the whole flowering plant treat fevers, malaria, aches and pains

Bugleweed - fresh plant is ingested to induce spitting up of blood in TB or heart patients, a mild narcotic, it reduces swelling in circulatory system

Pokeweed - the root is used in purgatives, treats skin conditions and tumors, especially in the breast

Bloodroot - the root is squeezed for its juice which upon ingesting causes stomach purge

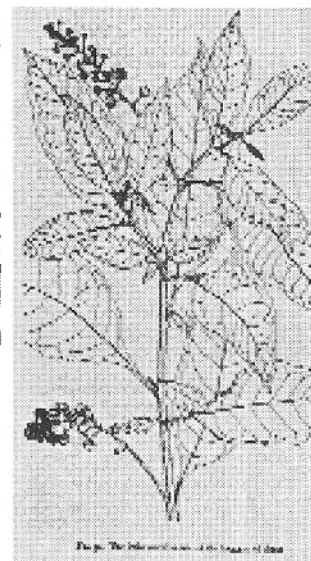
Purple nightshade - a host of ailments are treated by the young shoots and leaves: pneumonia, jaundice, eczema, asthma, phlegm, cramps, absent menstruation

Activity:

- What are the scientific names of the above listed plants?
- Take a field trip to a natural food store and see which of the plants are sold today. Try to discover which of the plants' properties are actually curative or beneficial. Which plant is part of a legend that says injured snakes seek it out to lie upon to be cured? Which plants can be deadly? Do students know medicinal or nutritional uses for other plants? Good resources for this activity are books on homeopathic medicine, a popular topic these days.



Wild Bergamot



Pokeweed

Medical Word Search

Objective:

To learn vocabulary associated with 18th-century medicine

Target Ages:

Grades 3-8

Class Orientation:

Individual

Time needed:

20-30 minutes

Materials:

- Handout
- Dictionary

Activity:

Using the grid on the next page, find the words below, all of which relate to 18th-century medicine, in the puzzle and circle them.

ARMY
ADAPT
BALL
BAYONET
BLOOD
BONE
BUNK
CANNON
DISEASE
EAR
EYE
FALL
GORY
HOSPITAL
IMMUNIZATION
INFECTED
KNIFE
LANCET
LEG
MEAT

MEN
MINT
MORTAR
NOSE
SALT
SHELTER
SMALLPOX
TEA
WOUND

D	I	S	E	A	S	E	R	B	L	O	O	D
O	M	O	R	T	A	R	A	E	C	T	J	O
E	M	E	N	O	S	E	E	T	E	A	E	G
F	U	I	O	R	S	C	A	S	Y	E	P	L
I	N	K	N	Y	H	A	P	R	E	M	A	E
N	I	R	N	T	E	E	L	A	Z	W	R	L
K	Z	O	A	G	L	B	R	T	Y	O	U	A
L	A	N	C	E	T	U	A	B	I	U	L	T
S	T	R	E	D	E	T	C	E	F	N	I	I
H	I	E	N	L	R	G	T	P	A	D	A	P
O	O	D	O	L	X	O	P	L	L	A	M	S
K	N	U	B	A	G	R	W	A	L	E	G	O
L	S	A	Y	B	A	Y	O	N	E	T	S	H

Medical Word Search

Target Ages:

Grades 6-12

Class Orientation:

Pairs or Small Groups

Time needed:

Class period

Materials:

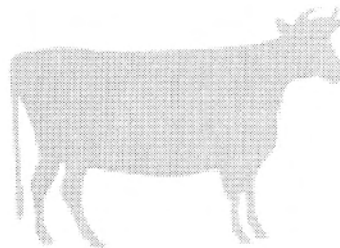
Handout

Real Cure or Not

Activity:

Read each “remedy” below and decide whether or not 18th-century patients really tried these ideas as cures. When you determine which ones were believed in, try to determine if they could possibly work. Answers appear on next page.

1. To keep the victim of a mad dog bite from getting rabies, the three days after the attack, give the victim a piece of paper with “affrat,” “frasret,” and “Frasset” written on each sheet. The dog bite will not lead to rabies if this is done faithfully.
2. Crush apple peelings to make a paste. Apply the paste daily for seven days to an unwanted wart. Cover the paste with a cloth bandage. This will dissolve the wart away. (Green apples work best.)
3. Scald fresh cow manure and wrap it, while it’s warm, in a cheese cloth. Apply the bundle to a bruise or bump to reduce the swelling.



Answers to "Real Cure or Not":

1) Not - But according to the book, "Selected Receipts of a Van Rensselaer Family, 1785 - 1835", this was believed to be a preventative for rabies. We know better now!

2) Not - While apple skin does contain a mild fruit acid, it is unlikely that apple paste on your hand will do anything but attract bugs. The Colonial Americans thought so too.

3) Real - Believe it or not, not only did 18th-century Americans follow this recipe for curing swelling, many modern cultures still do! Think about it; a warm, moist object placed on swelling increases blood flow by expanding blood vessels close to the surface of the skin. Warm, damp cloth does the same, and it doesn't smell nearly as bad!

4) Real - Again, we refer to the "Van Rensselaer Family" book to discover that this does work. Catnip is still used as a medicinal to induce sleep, relieve scarlet fever, small pox, colic, and hysteria. Why not use it for snake bites, too?

5) Real - While I have still thrown up on boats even after trying this, my husband, an accomplished sailor, swears it works. The wife of General Riedesel resorted to this trick when she sailed from Europe to join her husband in America.

6) Not - Can you sleep with a bunch of croaking frogs right under your head? No, and the 18th century person didn't think he could either.

7) Real - The Rodale Encyclopedia of Natural Home Remedies lists this as a real temporary relief of arthritis and cramps. There is a chemical in vinegar that reduces the acids in muscles that can cause cramping or arthritis pain. Why apple cider vinegar? It was probably fermented, and a little alcohol relieves aches. As for the honey...well, how else could a patient drink vinegar?

8) Not - Oh, brother... 18th-century women were a lot more knowledgeable about their reproductive organs than that. It is known that many urban women practiced natural birth control; they had no need for the large families often found in rural communities. Additionally, there is evidence of condoms (made of oilcloth) and abortions well before the 14th century.

9) Real - Many 18th-century people knew about the healing properties of fruits and vegetables. Many journals written on the Mount mention the lack of such provisions, both for food and for medicine. This cure was used in the 18th century, and is listed in the Natural Pharmacopoeia today.

10) Real - Tannic acid, found in tea, is an excellent anesthetic. Don't believe it? Try this treatment the next time you get a bad sunburn. Herbs of all kinds were made into medicinal teas. Black tea, pekoe, oolong, Seylon, and many others all contain tannic acid and colonials knew it.

4. Grind catnip into a very fine powder. Sprinkle over a snake bite to cure it.

5. To cure seasickness, lay in your bunk with your head upon a hard covered book.



6. Gather toads at night and place one large one (or two smaller ones) in a cloth bag. Put the bag under the bed of an insomniac. Instant, restful sleep is guaranteed.

7. To relieve severe leg cramps due to injury or excessive chill, drink a mixture of two tablespoons of apple cider vinegar and one tablespoon of honey stirred into a little bit of warm water.

8. To conceive a child, a woman should braid her hair to the side. To prevent pregnancy, braid it to the back.

9. To ease asthma, blend the juices of carrots and parsley. Drink the mixture twice a day.

10. Soak flannel or lint in strong tea. Place the soaked cloth on a burn to reduce the pain, itch and swelling.



Cleanliness is Next to Godliness

Objective:

To follow a recipe to produce soap as 18th-century people did.

Target Ages:

Grades 5-12

Class Orientation:

Small groups or pairs

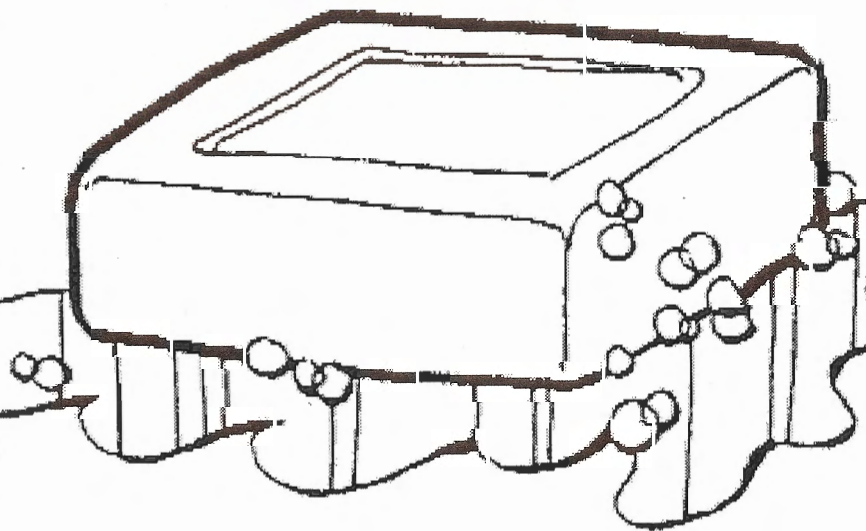
Time Needed:

A class period to prepare lye bath and another day sometime later to make cakes of soap

Introduction:

Hard as it is to consider, but this idea of cleanliness was not always met with great favor in the 18th century. Many people believed bathing was dangerous and unnecessary. If one were to bathe, it would strip off the body's protective oils which kept illness at bay. Any bathing that took place was not to occur during the warm hours of the day; the cold water could prove too much of a shock to the system. Hair washing was undertaken even less frequently. A wet head could cause serious illness, even death.

If bathing took place, it was done either in a stream or a basin. Bathers with access to streams, took advantage of them. It was thought that bathing in running water was healthier than in standing water. Most people resorted to using a bowl and pitcher in their bedroom to give themselves sponge baths. Cologne, perfume, potpourri, nosegays, snuff, other scent producing items were very popular among those who could afford them. These devices covered up one's own odor while, hopefully, masking the body odor of those around. Soap was probably the biggest "turn off" when it came to bathing.



Materials:

- 1 cup of lard or fat (room temperature - bacon grease can be used; strain it first while it's still hot). Note: Fat can be acquired from butchers and area meat lockers.
- 1 cup of water (room temperature)
- 2 tablespoons of lye (found at most natural food stores or supermarkets) (READ WARNINGS)
- Wooden spoons
- 2 Large mixing bowls
- A pot
- Rags

(CAUTION: Do not allow young children to handle the lye. It is caustic and can cause burns.)

The same soap was used to wash clothes, bodies, hair, and anything else that needed cleansing. But unless one were wealthy and lucky enough to acquire French soap, which was highly perfumed and often made with flowers, the typical soap was unappealing, to say the least.

Activity:

Recipe for 18th-Century Soap

- Place the lye in a mixing bowl and pour water over lye and stir until it is dissolved. Do not inhale the fumes. The water will get very hot as the lye interacts with it. Put the mixture away and let it sit overnight.
- The next day, place soft fat into one bowl and mash with a spoon until very soft. Heat it in a pot over a low heat until it is liquid.
- Slowly pour the lye and water mixture into the fat and stir until the ingredients are mixed together well. Stir it slowly until the mixture is like thick gravy. Pour it into a bowl.
- Cover the bowl with a rag and let it sit over night until it is set.
- The next day, wearing rubber gloves, roll the soap into a ball and put away to harden for about two weeks.
- When the soap is dry, let students touch, smell, and experiment with it. Would they want to bathe with this stuff? How about rubbing it on your hair? Would it clean clothes well?

Objective:

To get students thinking about what we need to stay alive, to prioritize, and compare the worth of different objects.

Target Ages:

Grades 4 - 8 (can be adapted to Grades 2-12 by changing vocabulary or altering possible choices including discussion about where-wounded men would be moved, etc.)

Class Orientation:

Individual or small groups, then a group to share ideas

Time Needed:

Before participating in activity, students will need research time to find out what items were used for. Limit choice-making time. Have class work quickly to reach consensus.

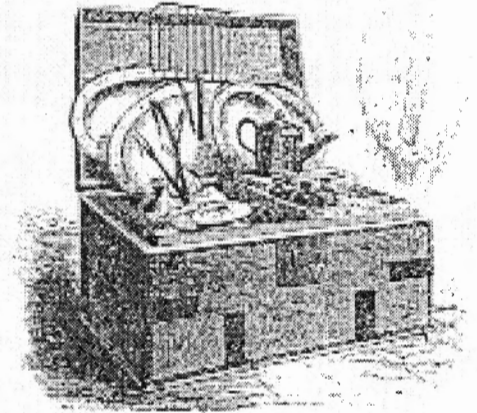
Materials:

* Handouts or list of supplies created by teacher and class. If reproductions are available (some are in the artifact kit from the Mount), let students touch and see the items.

Priorities: A Hasty Retreat

Introduction:

The call came. The British were marching on the Star Fort and there was no way for the reduced number of American soldiers to hold it. The Fort was to be abandoned. What did soldiers grab as they retreated across the floating bridge? Students can find the answer to that question by researching primary resources - the journals and letters of soldiers. But knowing that life has changed dramatically in 200 years, priorities, too, have changed. What would today's young people take as they heard the call to retreat? Why?



Activities:

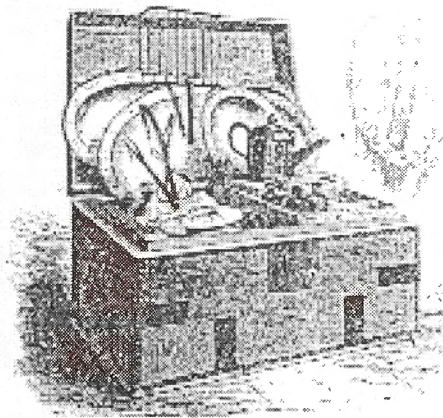
- Photocopy the list on the following page and distribute to the class, or write list on board, or display on overhead. Remind them of the situation, the impending invasion. Also remind them of the time of year, and how far they had to travel. This information may help the students make their choices.
- Allow students enough time to read through list and take a trip to the library where students can research articles. If possible, get students on the computer either with Encarta or on the Internet.
- When students have discovered the function of the items on the list, allow them time to make their choices based on their perceived value of the things.

- Discuss students' choices as a class. While some choices may make more sense than others, it is important to stress that there are no wrong choices if students can defend them

Priorities: Hasty Retreat and Basic Necessities

Below is a list of items found in the General Hospital where you have been working as an orderly. The doctor has ordered you to quickly gather up some supplies and some of your personal possessions, but there are only a few minutes before you must flee. You have space in your camp chest for ten things. After that the lid will not close and all your possessions will be lost. What do you take? Why?

clay pipe and tobacco
bayonet
your journal
extra pair of shoes
packets of flowers of sulfur
four pairs of mittens
ten vials of Belladonna
tea pot, leaves, and strainer
two packages of hard tack
regimental flag
three-dozen hard boiled eggs
long string of dried gourds
dutch oven
fishing pole
100 pound bag of flour
half-dozen flints and a steel




packet of letters from home
three bottles of witch hazel
crate of willow bark and leaves
ink bottle, blotter, rolls of parchment and quills
six canteens
knives and cutting boards
satchel of musket balls
sword and scabbard
salted fish (a basketful)
rolls of bandages and poultice ingredients
twelve s-hooks
three trenchers and ten spoons
three dead chickens, tied together
large bag of apples
hospital record books
three jugs of wine

Suggested Resources:

Wilbur, C. Keith, Revolutionary Medicine 1700 - 1800, Pequot Press, Old Saybrook, CT.

Lockie, Dr. Andrew and Dr. Nicola Geddes, Complete Guide to Homeopathy: the Principles and Practice of Treatment

Jeduthan Baldwin and Timothy Tuttle's Journals (In Museum Kit) 

The Diary of Albigeance Waldo, surgeon at Valley Forge 1777

Related Activities:

- How much notice did American soldiers have that they were going to retreat? What did they do to prepare the site for the invasion of the Redcoats? What things could they take with them? What did they have to leave behind? Why? What did the British bring to the Mount that had not been there before?
- See Word Search Puzzle
- Think about what ten things you might have picked had the retreat occurred in December. Would you have picked different items? Why or why not?
- Investigate the herbs and plants listed in this exercise. What help do they offer to humans? What was each used for? What other herbs can you find out about? Imagine you are a doctor in the General Hospital surrounded by wounded and sick men. What herbs and plants might you be using to cure the ill? (Go to your library to find books about holistic medicine and traditional cures and cross reference this activity with research done in the Natural Pharmacopoeia exercise.)



8

Main Street, Mount Independence

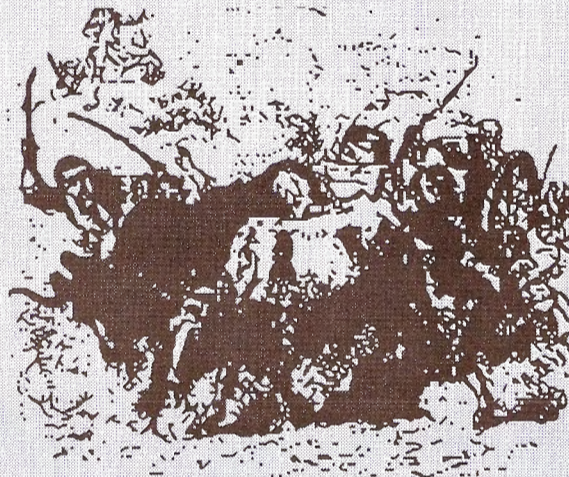
**The Building of a City
Atop Mount Independence**

Main Street, Mount Independence

The Building of a City Atop Mount Independence

At the peak period of occupation, 1776, some 12,500 men were stationed at Fort Ticonderoga and Mount Independence. Laid out in an orderly manner, the post was to operate under military rules necessary for well-being. In such a “howling wilderness,” there thrived a little city busy with life and construction, full of diversity and hardship.

Civilians, including women and children, also lived at Mount Independence. They did chores, tended animals, nursed the sick, and brought a touch of home to the military outposts. Sutlers sold drink, clothing, and domestic supplies to the soldiers, while wheelwrights, carpenters, coopers, and other craftsmen built and maintained the army’s equipment. Probably, mirroring the population of the colonies, a third of the Mount’s inhabitants were in favor of independence and fought actively for it. Another third were still loyal to England and king. And the last third had no opinion on the subject; they just wanted life to continue comfortably.



While the founders of our nation were struggling to define the role and responsibilities of the new government, Generals Horatio Gates and, later, Arthur St. Clair struggled with overseeing a diverse population of overworked, underfed, poorly clad soldiers and all that went with them. How would such a large population of civilians and military personnel be governed? Was there need for separate civil and military laws? Who would enforce the rules? Why would a woman follow her man to war? What was life like at the Mount and its little city?

Through activities that focus on identity, diversity, and basic necessities, students will learn what life was like for 18th-century military personnel, as well as traveling merchants, wives and children, and other folks who may have followed the army. The following chapter and activities explore the concepts of peaceful cohabitation, personal freedom and community well-being.

The Second Largest City in the Colonies--A Melting Pot

Mount Independence, formerly known as East Point and Rattlesnake Hill, saw inhabitants long before the American Revolution. But in the mid-1770s, the site buzzed with activity. Imagine life at Mount Independence in the summer of 1776. No one knew when General Carleton and the British troops stationed at Montreal would descend from the north and attempt to reclaim Fort Ticonderoga in the southward sweep to divide the colonies. The Northern Army continued to build in strength, now numbering near 12,500 American troops at the combined forts of Ticonderoga and Mount Independence, not counting women, children, sutlers (tradesmen and merchants who attached themselves to a military regiment), non-enlisted volunteers, and local settlers delivering food and supplies.

According to the Atlas of the American Revolution by Don Higginbotham, it is believed that the Mount Independence/Fort Ticonderoga complex was the second largest city in New England in the fall of 1776; Philadelphia, being the largest city in the country and the second largest city in the British Empire, boasted 34,000 people. New York trailed with

22,000 people, and Boston had a mere 12,000 people. The number of American troops which amassed in this region within one year, 1775-1776, outnumbered the entire population of Boston.

Scottish farmers had come to Vermont in large numbers in the 1770s, purchasing a great deal of land near Barnet, Ryegate, and Charletown. Irish immigrants had been coming to

the colonies all along, with women outnumbering men; they were brought back as brides of Americans who had gone to Ireland for an education. Skilled Dutch mill workers came to Vermont in search of better paying jobs than they could get in the heavily populated Albany area. They thrived in western and southern Vermont as they were, in general, more highly

skilled than the British officials who oversaw weights and measures. War-weary French-Canadians migrated south to escape the French and Indian Wars of the 1750s and made lives for themselves in Vermont, giving the state and many of its villages French names. German mercenaries started families, some even while still on the British payroll. Abenaki maintained homesteads alongside Europeans. Native Americans driven from New



York or Quebec settled in between. Many of the American radicals had been born in England, making them immigrants themselves.

How did a settlement like Mount Independence function despite such diversity? It wasn't always easy. It is important to remember that soldiers were fighting to protect their land and their families. They maintained fierce loyalty to their regiments and immediate superiors. At the time of the Revolution, there was no one American Army; men fought very personal battles. Yet, even if there wasn't one army, there was a strong sense of nationality. Polish-born Thaddeus Kosciuszko, brigadier general in the army of the rebellion, encountered prejudice from subordinate American officers who resented foreign officers. They viewed the American cause as theirs, and not the business of outsiders. It was not simply the high rank of Kosciuszko that annoyed his men; it was the fact that he was a foreigner.

In addition to language barriers and misunderstood customs of foreigners, there existed many differences among Americans. New Hampshire settlers in the Grants disagreed with Yorkers (residents of New York) who also claimed land that would eventually become the Green Mountain State. New Englanders seemed resistant to the urban, educated, well-heeled Pennsylvanians whose journals indicate that they saw themselves as superior to their "miserable" fellow soldiers who, in the words of Captain Persifor Frazer of Pennsylvania, exhibited

miserable appearance and what is worse the miserable behaviour of the Yankees is sufficient to make one sick of the service. They are by no means

fit to endure hardships; among them there is the strangest mixture of Negroes, Indians, and Whites with old men and children which together with a nasty lousy appearance makes a shocking spectacle.

These words remind us that there were black soldiers and



artisans at the Mount. In 1777, Vermont officially abolished slavery within its borders. Lemuel Haynes, born in Connecticut, served in the American forces at Fort Ticonderoga and in the 1780s moved to Vermont where he became the first black minister of the Rutland West Parish Church. In addition, there were

black slaves in New England, though they made up only about one percent of the population of New England.

Add to this mixture of inhabitants camp followers, children, merchants, trappers, traders, ministers, and settlers, all of whom had separate interests and concerns, and it is amazing that the Americans won the War of Independence at all!

“A Shocking Spectacle”

What a strange looking “city” Mount Independence must have been, sprung up almost overnight in the sparsely populated northern Grants. There was little time to construct proper streets; almost everyone lived in tents or makeshift structures of boards and canvas. In addition to regimental and brigade encampments, storehouses, barracks, guardhouses, hospitals, bake houses, stables, and other structures were part of the city on the Mount.

Commanding officers, acutely aware that contagious disease could sweep through an encampment, kill thousands and jeopardize the northern campaign, tried to enforce rules of sanitation. Smoky brush fires, believed to purify the air were

burned weekly around the encampments. Artificers and artillerymen were ordered to build latrines on the rocky cliffs above the beach. This later created terrible conditions when human waste

collected around the shores of Mount Independence and limited the use of water from the lake for bathing or cooking. Latrines were also an odor problem for those whose quarters were downwind from these northerly located “privies.” Human waste and garbage eventually polluted the water which surrounded the entire Mount; clean water was almost impossible to find. Even so, use of the cliff side latrines was strictly

enforced. Any soldier caught not using the latrines was severely punished.

Personal cleanliness was encouraged. Regimental soldiers were required to keep their hair short (by 18th-century standards) and tied back. Shaving weekly was ordered. Commanding officers tried to enforce rules of cleanliness in soldiers’ tents. Some soldiers were assigned the duty of hauling water and cutting firewood for the washerwomen. Washerwomen, although not officially in the military, were given

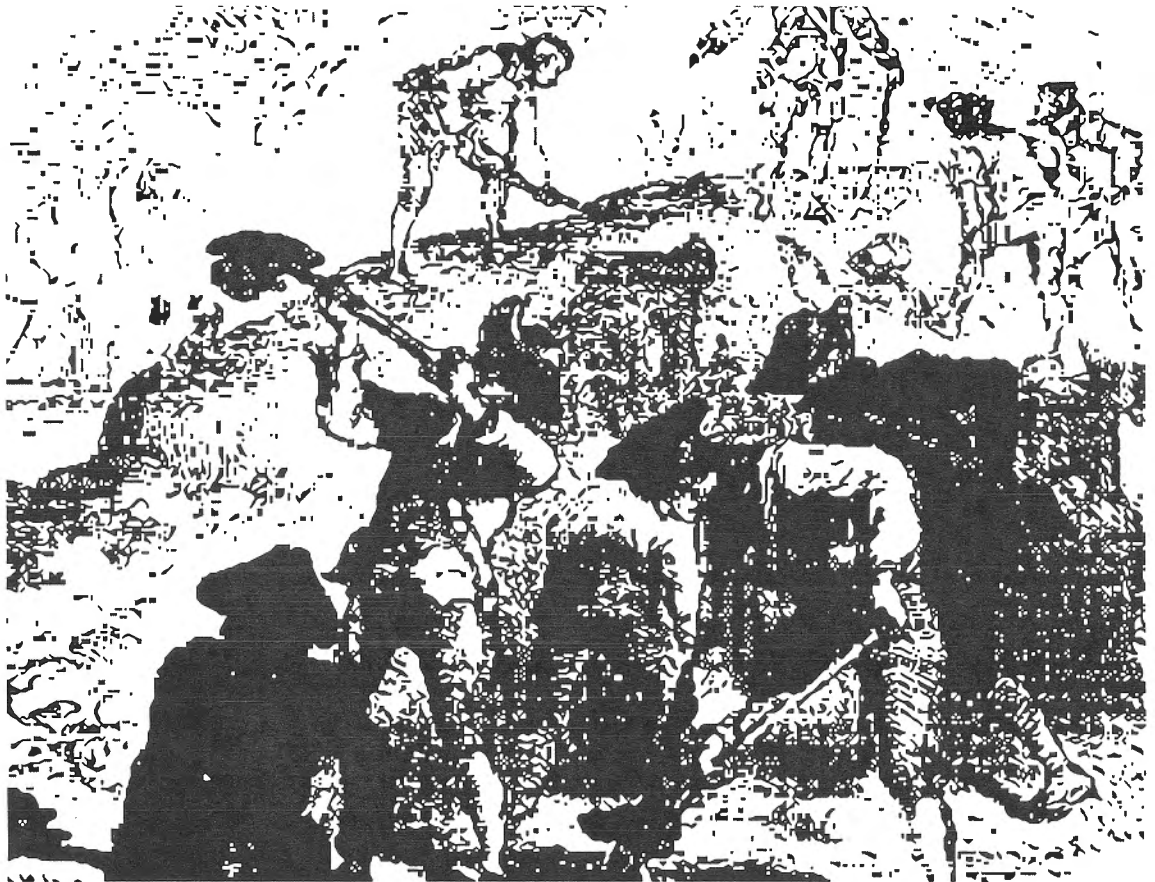


rations in exchange for washing uniforms and tidying camp. In fact, all women camp followers were required to report to the surgeon's office periodically for inspection for communicable diseases.

Any woman belonging to the Regt, who shall refuse to wash for the Men, shall be immediately drummed out of the Regt., as they are not found in Victuals to distress and render the Men unfit for Duty, but to keep them clean and decent (Wayne's Orderly Book, 12/10/76)

Regimental camps were laid out systematically according to the officers' rank and file, wagons, sutlers, and women and children having their own areas. Nevertheless, problems did arise. Certain New England regiments did not get along with regiments from farther south. This problem was addressed by placing the southern regiments from Pennsylvania and New Jersey at Ticonderoga and the New Englanders on the Mount with Lake Champlain between them. Some regiments welcomed women while others did not. It is believed that camp layout was primarily influenced by Humphrey Bland's Treatise of Military Discipline, which provided details for laying out a British encampment. "Streets were maintained between companies, parades lay in front of the regiments, and officers were posi-

tioned in the rear" (Wickman 1993). The additional burden of separating the common man of New England and the upper



class officers of Pennsylvania further influenced the layout of the Mount and Fort Ticonderoga, being used to the lake to separating them.

Food for all the people on the Mount had to be brought in. Sutlers encouraged soldiers to spend their meager wages on wine and rum, while officers discouraged them from consuming

more than their daily ration. Food, especially meat, was often in short supply. Spare time was spent fishing and roaming the woods looking for game and edible plants. Americans planted herb and medicinal gardens in 1776, but it is not known what other foods were produced on the Mount.

A Bustle of Activity

On the Mount, soldiers were everywhere: chopping trees to build the star fort; shoveling dirt and moving stones for earthwork fortifications; clearing roadways; constructing a giant crane; masting and equipping ships. The footbridge between Fort Ticonderoga and the Mount was in constant motion beneath the feet of artificers, couriers, sutlers; and commissioned officers.

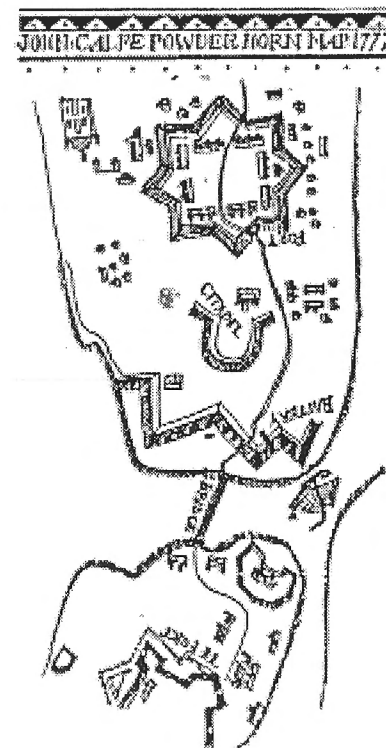
It took tremendous energy to lay out this city and to continually adjust plans to accommodate the loss of workers to spreading illness and unhealthy conditions which emerged from the Mount's rapid construction. Surgeon Samuel Wigglesworth of Colonel Wingate's New Hampshire Regiment, stated on September 27, 1776 that:

Nearly half this regiment is entirely incapable of any service, some dying almost every day It would make the heart of stone melt to hear the moans and see the distress of the sick and dying.

A City Ready to Defend Itself

The vast skills necessary for this rapid construction came from both enlisted soldiers and from the ranks of civilians. Rural New Englanders, especially in the territory now known as Vermont, were forced to learn self-sufficiency in geographically isolating conditions. They were forced to produce for their own consumption rather than making products which could be exported for sale. Consequently, settlers remained self-sufficient but economically limited by lack of commerce. Artificers, or soldiers specifically assigned to serve as specialized craftsmen, and volunteers summoned for their skills, such as carpentry, wheel making, and barrel making, were limited by the amount of tools available to them, but they rose above the hardship and made Mount Independence as livable as it could be.

A visual accounting of the layout of Mount Independence comes from a powderhorn belonging to John Calfe. Many sol-



Map on powderhorn of John Calfe

diers spent idle evening hours either drawing or writing accounts of what they were experiencing. Without these records, we would be unable to envision what life was like on the Mount.

The first soldiers to arrive at the Mount had to clear lush growth which covered the plateau. Calfe's powderhorn shows the mile-and-a-half-long shore battery along the eastern and northern borders of the point. The half-moon battery, a horse-shoe-shaped battery, or citadel, was built to protect the rear exposure. While larger cannon defended the Mount from the shore battery, smaller cannon, throwing nine- or ten-pound shot, were fired from the citadel. Several months after the batteries were constructed, Chief Engineer Jeduthan Baldwin, with the help of Gates, St. Clair, and Colonel Trumbell, surveyed the Mount for another location to further strengthen the fortification. A day later the engineer devised plans for an eight-pointed star fort. It would be constructed of upright wooden pickets and cover nearly 4 1/2 acres. Three hundred troops were ordered to complete the fort and build a square barracks inside it (Wickman, 1993).

By the orders of Horatio Gates, two guardhouses were built on the Mount to maintain security, one behind the horse-shoe battery and the other on the south side of the Mount. Rainy weather halted construction, but was welcomed by the artificers as time to sharpen their limited and overworked supply of tools. Colonel Baldwin used the southern side of the Mount as a wharf to receive supplies which came by water. Supplies were then hoisted by crane up the rocky cliff to the warehouses above.

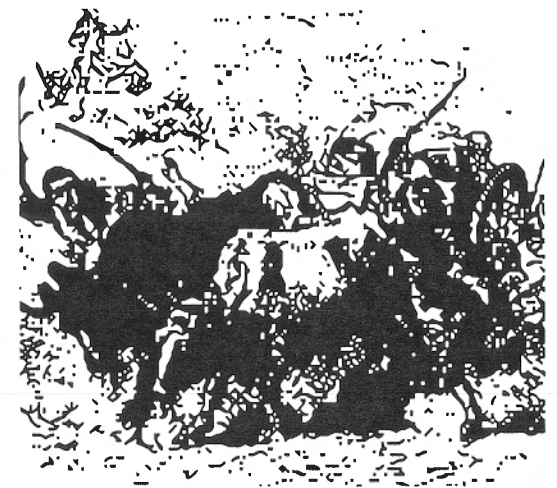
A post and beam frame building housed a munitions lab-

oratory which was built near the batteries. For the men, housing consisted of tents, huts, and framed houses among other structures. Meanwhile, artisans grouped themselves along with the women and children at posts which could serve the soldiers but remain out of the line of fire.

Day to Day Activities

The care and feeding of the army and providing for their welfare often became the task of camp followers, women and children. They helped to prepare food, tend livestock and animals used to transport the troops, plant and tend gardens, and prepare medicines from the harvested herbs. Women nursed the sick and wounded, laundered and mended clothing and uniforms, contributed to the cleanliness and orderliness of the camp, and boosted morale. Children helped wherever they were needed with daily activities on the Mount.

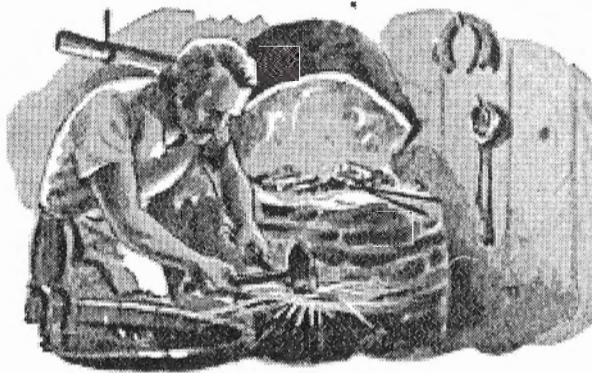
The terrain of Mount Independence made bringing food and supplies difficult, so meat was often shipped "on the hoof." This means that animals were driven to the Mount where they were butchered. Some garbage pits near the general hospital site have been excavated



and reveal a number of beef bones. As high prices, reluctance by some Loyalists or fearful neutral citizens to sell to the Continental Army, and geographic constraints limited the supply of food, local settlers or sutlers often provided fresh vegetables, eggs, and meats. From the sales of these “luxuries,” they were able to supplement their incomes. Among the military rank and file, individual hunting was prohibited, but official hunting parties killed wild game. Fishing was also banned at one point for security reasons. Food was severely rationed and “healthful” cooking practices were enforced.

From the Tedium of Everyday Life to the Future

It is a testament to the will of mankind and the unflagging American spirit that so many people were able to pull together and win the Revolution. Ethnocentrism was strong in 1775 in a nation that had not yet established itself as an independent country. Perhaps it is because America began as a tapestry woven from the fibers of many countries, people and opinions, that it has remained.



Objective:

To experience some ways in which people learn to respect differences and demonstrate pride

Target Ages:

All grades

Class Orientation:

Whole class

Time Needed:

30 minutes

While at the Mount:

Check the Mount Independence Historic Site Museum schedule for any special July 4th activities. Re-enact the 1776 reading of the Declaration of Independence to the troops.

Community Resources:

- 1) VFW
- 2) American Legion
- 3) Scouting Troops

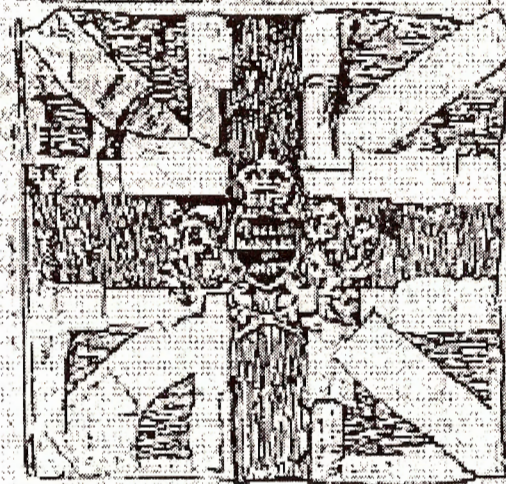
Introduction:

At Mount Independence, there were many differences of opinion that threatened to pull apart the delicate threads that bound diverse regiments together. Yorkers were not popular with folks from the Grants, future Vermonters. Some foreign officers in the American army were treated with disdain by their subordinates who insisted that outsiders had no say in the question of American freedom. Indian scouts, unmanageable and strange in their ways, were under intense scrutiny from officers. Their loyalties seemed far too fluid for most white Americans who believed, probably correctly, that the Indians were only looking out for their own interests.

Flags, Slogans & Identities

The QUEEN'S RANGERS

1777 Colours of the Rangers, now in the Public Library, Toronto.



Presented to the City of Toronto by Col. F.B. Robinson

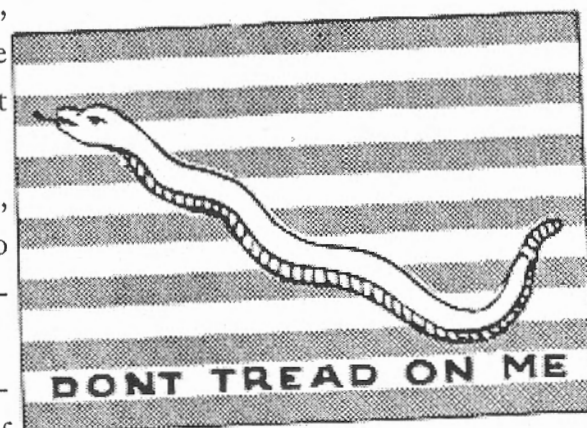
Educated, urban Pennsylvanians were disliked by many regular enlisted men or rebel volunteers. The Pennsylvanians also found fault with other Continental regiments, from their hygienic habits to the way they talked. Immigrant settlers were tolerated but not entirely welcome. Irish and Scots were often viewed with caution as many of their countrymen were fighting for the King. There were the French who would not officially side with the Americans until after Burgoyne's defeat at Saratoga.

The presence of women with advancing troops was appreciated by some, hated by others. Females were appreciated by the men whose wives or daughters tended to their creature comfort as nurses, cooks, washerwomen, and helpmates, but it is hard to imagine that jealousies and tempers did not flare from time to time. Men who left their women to engage the enemy worried that 'savages' might molest their unprotected ladies.

Even though they only accounted for about 1 percent of New England's population, blacks enlisted after 1775 at the rate of 6 percent. Still, many officers resented having to lead blacks who were belittled and often given the poorest provisions. Blacks wanted freedom from England as much as their white brothers in arms.

Yet, their differences were overcome and, in turn, their common enemy was vanquished. The famous colonial flag on this page speaks volumes about the sentiment of unity, and its premise has remained a common thread throughout American history. "Unite or die... A house divided against itself cannot stand . . . Support our boys at the front . . . America--love it or leave it . . ."

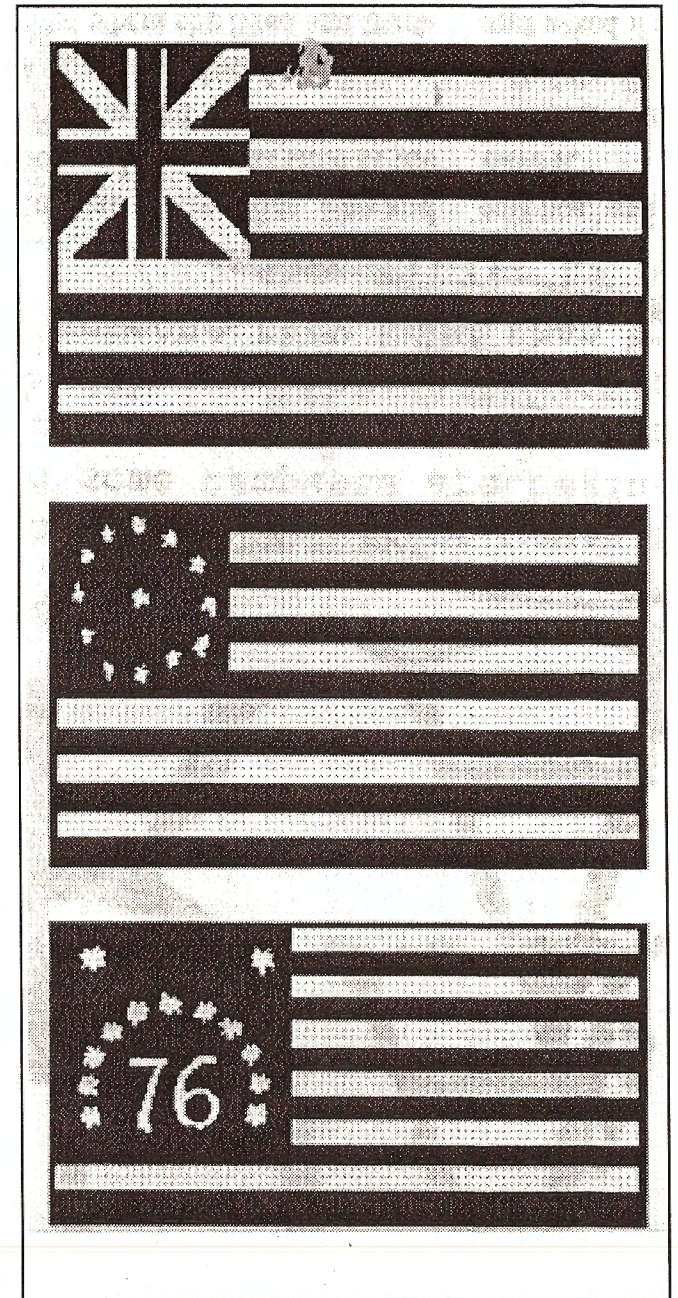
What is the power of a symbol? Why do we use recognizable symbols to strengthen causes? Do people indeed "rally around the flag" in times of trouble that threaten our country?



Activities:

- Looking at the flags on the following pages, what elements do they share? How do they differ? What sentiments are still clearly understood today? Which have lost symbolic meaning?
- For older students--read or listen to a reading of the Declaration of Independence. What values are of utmost importance to the writers and signers of the Declaration? How were these values represented in flags and slogans? What do the colors signify and why haven't they changed over the years?

- Slogans and flags representative of group identity are quite common. Your school likely has a mascot, team name, team banner, etc. . . , What is its origin and meaning? When was it adopted? Why? What would your class have as its slogan and symbol of its group identity?
- The American flag has changed over the years as evidenced by the illustrations. Stars and stripes were rearranged; stars were added for each new state. But, its general appearance has never changed all that significantly. A new millennium is upon us. Have students create a new flag for what the United States has become since Old Glory was created.
- In the 1990s there has been tremendous debate over the state flags of some southern states which feature the "stars and bars" of the Confederate flag. Other people argue that the Confederate flag should not be displayed on government sites, as it has been in North Carolina, because it is offensive. How can a flag be offensive? What is it that makes people so divided over this issue? What should a state flag represent? What does Vermont's flag represent?
- Investigate the correct use and proper display of the American flag. Assemble a color guard and hold a flag ceremony.
- Cyber visit the Besty Ross Web Site at <http://libertynet.org/iha/betsy/> or the Smithsonian Institution's Museum of American History site at <http://www.si.edu/organiza/museums/nmah.html/floor2.htm>. Then click on Flag Hall to see the flag that inspired the writing of our national anthem.



A Classroom Full of Artisans

Objectives:

- To learn who occupied the Mount and what it was like to live in the 18th century.
- To think about the importance of basic necessities of food, clothing and shelter.

Target Ages:

Grades 4-6

Class Orientation:

Individual or small groups

Time Needed:

4 class periods

Materials

- Classroom setting with chairs, tables, etc.

• Copeland, Peter F., Early American Crafts and Occupations, Dover, NY 1994. (In Museum Kit)



Introduction:



There are many people involved in the construction of a city, including planners, engineers, and skilled workers. Now imagine having a few months to build a city in 1777. Imagine starting in a forest that needs to be cleared. Remember that you must help build a city that will eventually provide for thousands of people at one time.

Activity:

- Have students assume roles of artificers or camp followers (women and sutlers). Suggested roles to be assumed and researched:

Wheelwright
Cooper
Blacksmith
Shipwright
Gunsmith
Trader

Carpenter
Washerwoman
Cutler
Housewright
Cobbler
Rope maker

Notes:

- Students should imagine themselves as traveling artisans who have to move necessary supplies with them everywhere they travel. Women and children also accompanied peddlers and artisans, and much of the necessary supplies were brought in by traders or supplied by Native Americans.
- Have students research a role and create a monologue about the daily activities of each character. Students should mention food, clothing and shelter used by the character they are researching. Students can either bring in supplies from home or make them. Room furnishings can be used as mock houses, batteaus, etc. Students should try to invent tools and think about supplies and foods which can be stored.
- After each monologue, have a student act as a reporter who interviews the participant. Videotape the monologues and interviews and create a news "special."

Camp Followers

Objective:

- To help students gain an understanding of the roles of women in the Revolutionary War and the conflicting opinions of the time concerning their roles.
- To engage students in the researching the changing role of women in the military and explore military service as a woman's career choice

Target Age:

Grades 5 - 8

Class Orientation:

Individual, small group, whole class depending on which activity is chosen.

Time Needed:

One class period to get organized, and additional individual research time.

Materials:

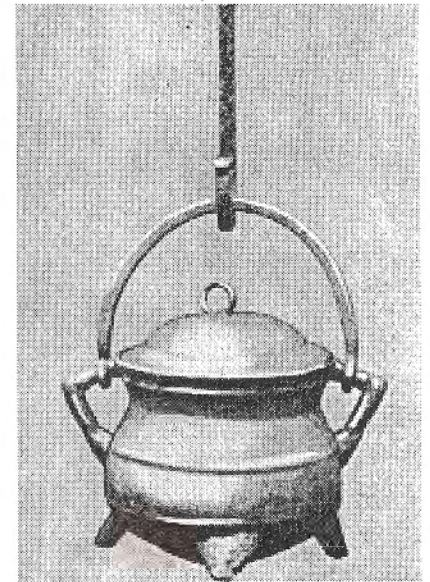
- Library resources.
- Computer with access to Internet.
- David Starbuck article "Identification of Gender at Northern Military Sites of the Late Eighteenth Century"

Introduction:

Most students are surprised to find that women accompanied men to war. Little mention is made of them in war diaries and journals, and most history books ignore their presence. Even the archaeological record is obscure, since most items associated with women (such as sewing needles) were also used by men under the circumstances of war and military encampment.

Women, such as Margaret Corbin and Mary Hays, nursed the sick and wounded, laundered and mended clothing and uniforms, contributed to the cleanliness and orderliness of the camp, bolstered morale, and sometimes even fought alongside the men they loved. Every city and colony, even the Grants, has at least one story centering on the heroic courage and patriotic spirit displayed by a wife, female neighbor, or daughter during the Revolutionary War. Unfortunately, these women are frequently portrayed as folklore characters, dressed in flowing yards of red, white and blue cloth, wearing noble expressions as they manned the cannon or held British soldiers at bay. Like the Statue of Liberty, they symbolically represent the cause but somehow fail to impart much about the real women behind the events.

Some women, such as Abigail Adams, saw the possibilities of greater political freedom for women within a new governmental system. She wrote quite candidly to her husband John, "we



Suggested Resources:

Blumenthan, Walter. Women Camp Followers of the American Revolution. Philadelphia, PA: George S. MacManus, 1952.

Cannon, Jill. Heroines of the American Revolution: A Bellerophon Coloring Book. Santa Barbara: Bellerophon Books, 1995. De Paw.

Linda Grant. Founding Mothers: Women in America in the Revolutionary Era. Boston, MA: Houghton Mifflin, 1975.

Gleiter, Jan and Kathleen Thompson. Molly Pitcher. Austin, TX: Raintree Steck-Vaughn, 1991.

Hahn, Michael. Ann Story: Vermont's Heroine of Independence. Shelburne, VT: The New England Press, Inc., 1996.

Starbuck, David. "The Identification of Gender at Northern Military Sites of the Late Eighteenth Century". Those of Little Note. Tucson & London, The University of Arizona Press, 1994.

The Uncommon Soldier of the Revolution: Women and Young People Who Fought for American Independence. Harrisburg, PA: Eastern Acorn Press, 1986.

"Women and Children", selected entries from various journals written at Mount Independence in 1776-77

possess a spirit that will not be conquered . . . I desire that you would remember the ladies." She later wrote, "we will not hold ourselves bound by any laws in which we have no voice or representation." Others, like Benjamin Franklin's daughter, Sarah Bache, used her social position to campaign tirelessly to raise money for the troops.

Penelope Barker of Edenton, N.C. wrote letters of protest to the British government stating her refusal to buy heavily taxed English goods. She drew attention to her protest by throwing "tealess" tea parties. Mercy Warren of Massachusetts used her pen to write biting poems, plays, and essays poking fun at English policies that she perceived as unfair. A slave woman named Phillis Wheatley wrote poetry protesting British "slavery" of colonists. Women throughout the colonies sewed uniforms, made the ingredients for gunpowder and sheltered soldiers in their homes.

Women nearest the battlefronts shared their fears in their diaries. Baroness von Riedesel, who accompanied her husband during Burgoyne's northern campaign, wrote of laying with her children for hours on a dirt cellar floor while cannonballs passed through the house above their heads. A few women, such as Ann Story of Salisbury, Vermont refused to move to safety and leave her homestead in the Grants. Anne courageously endured Indian attacks, aided the Green Mountain Boys and encouraged her sons to fight for independence.

Even though their stories were seldom or poorly recorded, and traces of their lives are indiscernible in the archaeological record, women at Mount Independence are mentioned in several journals: they did the washing, nursed the sick, enjoyed tea and outings, had their children baptized, and died of disease. Their silence in the historical and archaeological records should not lead us to forget their presence at Mount Independence or their contributions to camp life in the Northern Army.

Activities:

- Some generals thought that women followers were beneficial to the army and others found them a detriment. Write a position paper defending your opinion on camp followers.

Materials:

- Molly Pitcher



- Interview a woman currently in the military--in person, by phone or e-mail. Some possible questions are--how does the military view women, how does society view female military personnel, how has military service changed the woman's personal view of herself?
- Pretend the year is 1776. Appoint a military review board from the class that will study "the problems with women who are camp followers. " Working as a team the review board will:
- Make a list of problem areas. Some suggestions are: women who won't work, gossips, troublemakers, too many women followers, unruly children, "flirts", etc
- Review the facts and viewpoints surrounding the issue from the testimony of relevant individuals (army leaders, camp doctor who is helped by female nurses, soldier whose wife is with him, etc.). Have other students prepare to give testimonies according to their "roles."
- Determine if women will be allowed to continue to accompany the army.
- If women will continue accompanying the army, develop policies regulating their presence and activities. Questions to answer might be: will women be given provisions and how much, how many women can accompany the army (Pennsylvania set a ratio of not more than 1 woman per 8 men.), and what work is expected from the women, etc.

Target Age: Grades K-4

- Read Molly Pitcher and/or excerpts from the Starbuck article and:
 - Discuss, act out or draw the roles of women in the Revolutionary War
 - Debate whether women should have been at the military camps during the Revolutionary War.
 - Act out a scene from Molly Pitcher.
 - Make a bulletin board of the ways women helped during the Revolutionary War.

Notes:

- Learn a Revolutionary War era dance such as a contra dance.
- Learn to sing a song popular during the Revolutionary war (see "The World Turned Upside Down" activity included in this chapter.

Target Age: Grades 9-12

- Contrast the role of women in the military during the Revolutionary War with that of women during the Gulf War. Comment on cultural and societal attitudes and changes.
- Research the changing role of women in the U.S. military from the Revolutionary War to present. Discuss the impact of these changes on the family, our culture, and how women view themselves

References/ Resources:

Edholm, Ken. Lost Colony Games: First
English Games Brought to America.
Roanoke, VA. Revelry, 1984.

Clay Marbles

(In Museum Kit)



18th-Century Games

Games unite children from different continents or different centuries. Children at Mount Independence must have had time for games even though they probably spent many hours helping with chores, such as gathering wood, weeding gardens, washing clothes, cooking, and tending younger siblings and animals. We cannot tell from the written archives or from recovered artifacts which games were played at the Mount, but many on this list were popular with children and adults in the 1770s.

Board Games

Chess
Checkers (Draughts)
Cribbage (Noddy)
Backgammon
Dominoes
Cards

Group Games

Blind man's bluff
London Bridge
Leap Frog
Bobbing for apples
Charades
Musical Chairs
Pick-up sticks (Jackstraws)
Marbles
Climbing a greased pole
Cat's Cradle
Water Bucket Brigade Race
Fox and Geese
Rolling hoops with sticks
Ring toss (Quoits)

Notes:

Many, such as charades, chess, dominoes, etc. were played similar to those played by children today. Others had a definite 18th-century flavor such as:

Hide the Thimble: A sewing thimble is hidden somewhere in a room by a party host and the person who finds it gets to keep it.

Blind Man's Bluff: Enjoyed by young and old alike. Younger children played it as they still do today. Older players used the game as an excuse for stealing kisses and hugs.

Cards: Frequently decks had swords (spades), hearts, stones (diamonds), and wood clubs as suit markers. Many decks of cards were created with allegorical themes; characters from mythology, fables, and so on.

The Minister's Cat: One person begins this chanting game with the line, "The minister's cat is a fill in the blank with an attribute beginning with the letter A; the next person continues the chant with the letter B, and so on until someone can't come up with an answer. That person is out and the game continues. Adjectives cannot be repeated in a game. Eliminate players until one remains.

Marbles: A circle is drawn on the ground or made out of string. Each player puts in the same number of marbles and takes turns flicking another marble with his/her thumb. The object of the game is to knock out of the circle as many marbles as possible. The player with the most marbles at the end of the game wins and often gets to keep his winnings. 18th-century marbles were frequently made of clay and were not as durable as glass marbles.

Pick up Sticks: Often made of smooth bone or even ivory, sticks were marked with paint or notches to identify them. A bunch of sticks (yes, even twigs) are tossed out upon the ground or a table and each player takes a turn trying to remove one of his/her sticks at a time without moving any other stick.

Objective:

To experience games from another culture and time period

Target Ages:

Grades 4-12

Time Needed:

10-15 minutes per games

Class Orientation:

2 person game

Materials:

- Game board included with this activity
- Nine black (or red) game pieces (made of bone, stone, or other suitable material such as painted pebbles)
- Nine white game pieces (eg. painted pebbles)

Nine Men's Merels

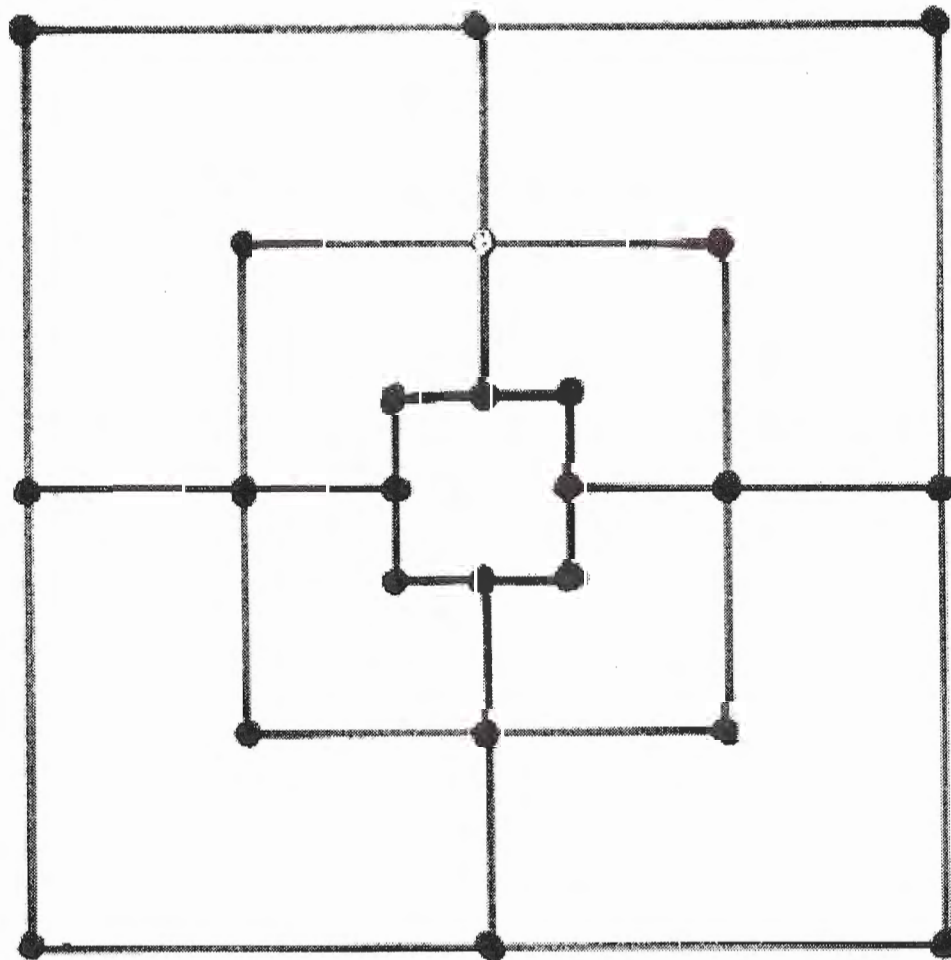
Introduction:

Merels boards have been found in ancient temples as far back as 1366 B.C. It was popular with Anglo Saxons and Vikings. The game, also known as Morris or Nine Penny, came to the colonies with the British. This game is also known as Morris or Nine Penny.

Activity:

The Nine Mens' Merels Board is made up of three concentric squares connected by intersecting lines in the center of each of the square's sides. This is a two player game. Players start with nine pieces of one color. Each player in turn places one of his pieces on one of the intersections on the board. If a player forms a line of three pieces, he removes one of the opponents' pieces from the board. If at all possible, the piece should not be removed from an existing "mill" or line of three. When all pieces have been played, the players move the pieces around one intersection at a time. On completion of a line of three, an opposing piece is taken as before, except pieces cannot be removed from a line of three. Forming a line of three is called making a "mill. " Moving a piece away and then moving it back again in a subsequent move is allowed. The winner of the game is the player who removes all but two of the opponent's pieces. A player automatically loses when he cannot make a move.

18th-Century Merel Board



"One Sally Lunn to Go Please"

Objective:

Experiencing 18th-century food and nutrition.

Target Age:

K-12th grades

Class Orientation:

Whole class or small cooking groups

Time Needed:

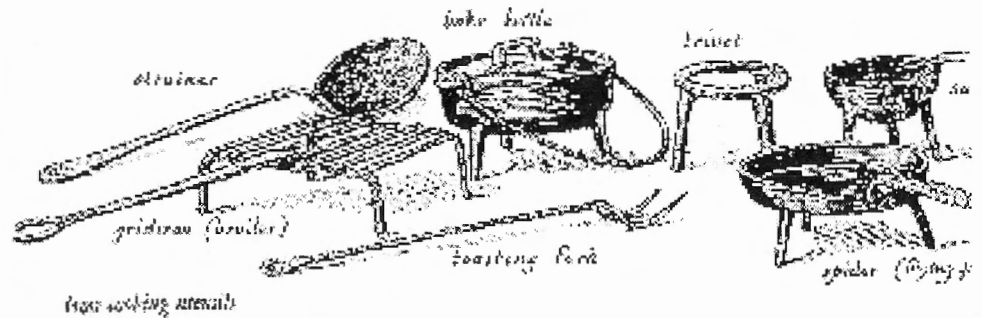
Varies, depending on recipe, approximately 30 minutes to one hour.

Materials:

Cooking ingredients, (varies with recipe, use of kitchen or stove for heating and baking)

Introduction:

While the colonies were rich in agricultural products and the land bore abundant harvests, procuring food for the Continental Army was not as easy as it might seem. First of all, transportation was a formidable problem, especially in the semi-wilderness area around Mount Independence.



Supplies were shipped up the Hudson River to Albany, the central supply headquarters for the Northern Army, and distributed from there. Journals and letters from General Gates, General Schuyler and Chief Engineer Baldwin express frustration about receiving supplies in a timely manner.

Meat was sometimes shipped 'on the hoof' meaning animals walked to where they were butchered and eaten. Correspondence to General Gates mentioned problems feeding all the cattle at Mount Independence (Anderson and Starbuck, 1992). However, more frequently, meat arrived in barrels of salt brine and had to be "freshened" (soaked in fresh water) before using. In the early summer of 1776, mention is made of inferior "musty" flour and brined pork that had lost its "pickle" when wagoners drilled holes in the barrels to drain out the brine to lighten the load (Anderson and Starbuck, 1992).

References/Resources

Anderson, Paul and David Starbuck, "Meats of the Mount: A Butcher's View on Feeding the Troops of Mt. Independence", ms. 1992.

"The Mount Through a Soldier's Eyes. Selected Quotes," ms. property of Mount Independence State Historic Site, Vermont Division for Historic Preservation, 1996.

Colonial Williamsburg Foundation, The Williamsburg Art of Cookery or Accomplish'd Gentlewoman's Companion, Colonial Williamsburg, VA, 1938.

Phillips, Lois, Green Mountaineer Cookbook, Paulo Books: Smoke Rise Enterprises, USA, 1969.

Rees, John, Compendium of Ration Allotments, 1754-1785, ms.,

Sanderson, Sally, Revolutionary War Era Cookery, 1976, photocopied.

It was not easy to supply provisions for thousands of men. Farmers resented the price ceiling placed on meat by Congress, others were reluctant to take colonial paper money, and some expressed their loyalty to the Crown by refusing to sell to the Continental Army (Anderson and Starbuck, 1992). Some items such as eggs, fresh vegetables, some meats, and the like could be obtained from the local settlers who supplemented their income by selling to the army. Sutlers who accompanied each regiment sold food items to augment army rations.

While individual hunting was forbidden, organized hunting parties added wild game to supplement the diet of predominantly salted meat. Meat had to be cooked by prescribed methods corresponding with beliefs of the day concerning "healthful" cooking practices. Men received their rations and cooked in small groups, usually eight to twelve men.

The Common Ration for the Continental Army, 1775-1776 was:

Per Man:

1 pound beef or 3/4 pound pork or 1 pound fish per day
1 pound bread or flour per day
3 pints peas or beans per week or vegetables equivalent
1 pint milk
1/2 pint rice or 1 pint Indian meal per week
1 pint spruce beer or cider

Per Company:

9 gallons of molasses per company of one hundred men per week
3 pounds of candles per company of one hundred men per week, for guard
20 pounds soft or 8 pounds hard soap for one hundred men per week
(Rees)

Excavation at hut sites and associated trash pits at Mount Independence revealed cut animal bones were cuts from less desirable, stewing portions of meat and also ankle and foot bones (Anderson & Starbuck, 1992). While we often discard such bones today, colonial cooks boiled hooves and foot bones to make gelatinous broth as a stock for soup. Long bones were split to extract marrow, also used in cooking. Cracked skull bones indicate that the brain, tongue and cheek meat was also being eaten regularly (Anderson & Starbuck, 1992). While 18th century

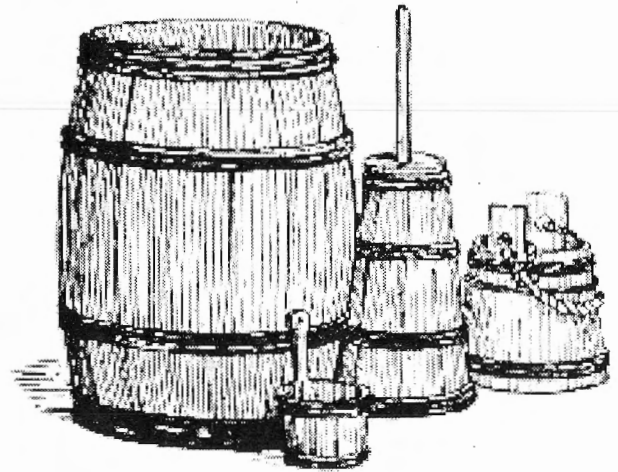
Note for cooking salted meats: Colonial wisdom says that "simmering brings the salt out, boiling drives it in" (The Williamsburg Art of Cookery, p.32).

cooks, in general, used more of the pig or cow than we do today (boiled tongue, kidney pie, headcheese), the types of bone fragments recovered indicate that every edible part of an animal was eaten (Anderson and Starbuck 1992). Terrible diets were reported in journal entries which talk of sickness caused by wormy and rancid food and regularly missed meals and hunger. One wonders what the days were like for the women and children at Mount Independence who received half rations or none at all.

Times were not always rough, especially for the officers, who mention picnicking with the ladies alongside Lake Champlain and dining with the surgeons at the hospital with its reportedly excellent wine cellar. The surrounding countryside provided wild ginger, wild onion, and other culinary herbs to add flavor and variety to the meals. Daily cooking at Mount Independence probably resembled general country fare in the best of times, but more frequently, provided little consolation or healthful nutrition for the soldiers

Activity:

Bring in a selection of cookbooks or have students bring in recipes that have been in the family for more than one generation. Look through cookbooks and choose a dish or a complete menu using ingredients that would have been available in 1776. Some suggestions are: Boston baked beans, succotash (corn and lima beans), stew (using beef, pork, venison or squirrel), pea soup, gingerbread, cornbread (or its poorer cousin hoecake made with just cornmeal, water and salt), Sally Lunn cake made with yeast, any salted or pickled meat.)



Notes:

Haymakers Switchell

This old fashioned drink is said to be very thirst quenching on a hot day. It would have been popular after a hard day felling logs or building earthen defense works in the July heat at Mount Independence.

1 gallon very cold water

1/2 cup cider vinegar

1/2 cup sugar

grated ginger, about the size of a fingernail

molasses to taste

Indian or Country Pudding

1/3 cup corn meal

1/3 cup flour

1/2 cup molasses

1/4 cup raisins (or chopped apples)

1 quart milk

dash nutmeg

dash powdered clove

1/2 teaspoon ground cinnamon

1/3 teaspoon salt

Stir together flour, cornmeal, salt and spices. Mix with one cup of the milk until mushy. Scald one cup of milk and add to the mushy mixture. Stir sugar, molasses and raisins into the remaining two cups of cold milk. Add to the mushy mixture. Pour into a buttered baking dish and bake at 325 degrees until thick.(This may take up to three hours). Cool slightly and serve alone or with whipped cream or ice cream as a special treat. This recipe may be doubled to feed a large class of students.

Target Ages:

Grades K - 8

Class Orientation:

Whole class

Time Needed:

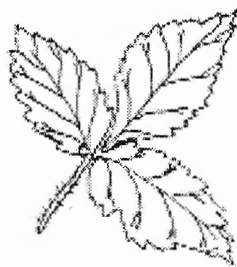
15 - 20 minutes

Materials:

- Tea leaves (see below)
- Pot for boiling water; source of heat, honey, maple syrup or other sweetener
- Tea sieve, coffee filter, or cotton gauze

Liberty Tea is Brewing

Introduction:



Wild Strawberry

Tea imported from England was an important food during the Revolutionary War, and many individuals displayed their patriotism by substituting other beverages for tea. Zealous women from Boston to Williamsburg boycotted this household staple by holding "Non-Tea Parties," complete with cakes and scones and other trappings of a traditional tea party, but conspicuously without tea. In the Grants and at Mount Independence, English tea was not usually available even for those who chose not to boycott the product. Resourceful tea

drinkers gathered the leaves of local indigenous plants and brewed steaming pots of flavorful, herbal teas. Some of the ingredients were undoubtedly learned from Native Americans who also favored hot tea for enjoyment and medicinal purposes.

Activity:

Ingredients:

- 1 handful fresh blackberry leaves for every 2 cups of tea
- 2 1/4 cups water
- honey (optional)

Add freshly picked leaves to boiling water. Cover pot and remove from heat. Steep for 10-15 minutes. Strain through sieve or coffee filter. Serve hot or cold.

Notes:

Variations:

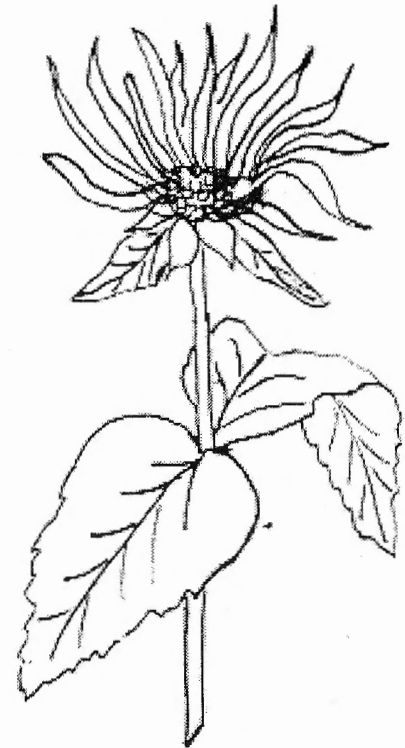
Wild raspberry leaves

Wild strawberry leaves

Beebalm leaves (also known as Indian tea, Oswego tea, or wild bergamot)

Spearmint and peppermint leaves

Note of caution: If you are not absolutely sure that the leaves you have picked are edible, throw them away and use loose or packaged tea leaves, such as raspberry, from a grocery or health food store. Open a bag of the tea onto a paper plate and pass it around the classroom so students can examine and smell the leaves before steeping.



Wild Bergamot

Objective:

To investigate herbs and their uses in cooking, medicine, and other aspects of life.

Target Ages:

Grades K-6

Class Orientation:

Whole class or individual projects

Time Needed:

3 months for growing, 2 class periods to study

Materials:

- Soil
- Herb seeds
- Water
- Sunlight

Resources:

Spencer, Edwin Rollin, *All About Weeds*.
Dover Publications Inc., New York.
Research Heritage Garden Books,
1940.

While at the Mount:

Hike the trails to the location of the garden. What do you notice about the terrain here? Why was this spot chosen for the garden? Check out the Artifact Cart for samples of herbs commonly used in the 1770s. Smell them. When appropriate, taste them.

The Kitchen Garden

Introduction:

Found on and around the Mount are some naturally occurring plants that are useful as remedies or in cooking. However, no self-respecting cook could run a kitchen without additional herbs that did not occur naturally on the Mount. A good portion of a cook's day during growing season was devoted to planting, weeding, picking, sorting, drying, and saving herbs for winter use. As a vital source of vitamins, minerals, food, remedies, and comfort items, the kitchen garden was an important part of 18th century life.

Activity:

- Find out the properties and uses of the following herbs, and create a window box for immature plants.

Herbs and plants commonly found in kitchen gardens:

garlic	thyme	parsley	marjoram	dill
basil	borage	savory	calendula	chervil
chives	shallots	mint	camomile	geraniums
rosemary	sage	tarragon	lamb's ear	lemon balmclover
horehound	burnet	lavender	costmary	

- When the weather permits, create a community herb garden. Each student should select an herb or medicinal plant to tend. Work with students on garden design and create work teams to take care of the garden on a rotating basis.
- Some of these plants were eaten, some used in cures, some to keep away moths. Each had a valuable purpose, or more than one. Which plants are still popular today? Why? Which have you used? Did you use it for the same reason colonial Americans did?

Objectives:

- Make your own mob cap
- Improve math skills

Target Ages:

Class Orientation

Time Required:

Class Period

Materials:

(taken from a Colonial Williamsburg activity)

- Poster paper 20" x 20"
- Pencils
- Scissors
- Rulers
- Ribbon
- Linen or cotton cloth 20" x 20"
- Lace - half-inch wide optional

Mob Cap Math

Introduction:

Clothing during the 18th century especially in New England was designed to serve many functions, primarily warmth, comfort and protection but also style. The mob cap was a plain cap with a gathered crown. New Englanders would have made their caps out of available materials like wool, cotton or linen. In parts of colonial America, being capless was considered a state of undress. Caps protected hair from dirt acquired through everyday activities - smoke from fires, grease from cooking, dust from travel, etc. Mob caps also covered infrequently washed hair. It was considered unhealthy to wash hair too often and easier to put on a clean cap. Mob caps were also worn under fancy bonnets and other types of hats.

Activity:

- Introduce this lesson with chapters from textbooks on colonial life in America.
- Present this with a lesson on radius, diameter and circumference.
- Have students look up words such as radius, diameter and circumference and read about 18th century clothing.

Mob Cap Instructions

- Take a 20" x 20" piece of muslin. Fold in half and in half again. This will give you the center of the fabric. Keeping the fabric folded, measure 9 inches (the radius) from the fold point, then mark the line. Repeat this procedure until you have marked a quarter circle on the folded fabric square.

Notes:

- Cut out the quarter circle. Ask, "What is the diameter for a circle whose radius is 9 inches?" Unfold the circle and check the diameter measure.
- Take the circle you just cut out. Follow the same procedure and mark 7 inches this time from the center of the circle. DO NOT CUT THIS LINE OUT. On each mark you will punch or snip a hole.
- Next, cut a piece of ribbon about 36" long. Starting in the front of the cap, weave the ribbon in and out of the holes in the cloth. Gather the material as you proceed. Place the mob cap on your head. Gather the material until it is properly fitted. Tie a bow in front. Now enjoy wearing your Mob cap.

Objective:

Experience popular music from another era and examine the social and political themes of 18th century music.

Target Age:

Grades 3-12

Class Orientation:


Individual, pairs, or small groups

Time Needed:

20 minutes listening to

Revolutionary War era music or discussing the music of the time, particularly military music such as Yankee Doodle.

Materials:

- Recorded music popularized in the mid-1700s. (In Museum Kit) 
- Lyric sheets accompanying this lesson.

The World Turned Upside Down

18th-Century Music

Introduction:

The song "The World Turned Upside Down," also known as "Derry Down," was a popular refrain of revolutionaries since the mid-1600s. Legend has it that this tune was chosen to be played by Cornwallis' troops upon surrendering at Yorktown. In the 1700s, as now, music was a common bond that knit people together, cheered the soul, and impassioned social consciousness. From curtained rooms to raucous taverns to lonely backwood hearths, music of the newly emerging nation took its roots from the popular pieces of England and France. The air surrounding Mount Independence must have been filled during the day with fife and drum calls and at night with the hearty tunes of merriment or the forlorn ballads of lost loves and battles. The words of many colonial songs were set to popular British tunes such as "Free America," set to the tune of "British Grenadiers" (on the cassette "Miliary Musick of the American Revolution" included in the museum kit). One of the most popular composers of the day was William Billings, an informally-trained Bostonian respected for his singing, teaching, conducting, and composing abilities. "Chester" exemplified his patriotic feelings, and following "Yankee Doodle" was the second most popular song of the Continental troops.

Activity:

- Read the lyrics of "Chester," "Yankee Doodle," and "Free America."
- Discuss the phrases that play on the sentiments, show patriotism, and appealed to youth of the day.

Resources:

Brigade of the American
Revolution. *Military Musick of the
American Revolution*. Albany, NY:
Cotton Hill Studios, 1989. Phillips,
Barry and Friends.

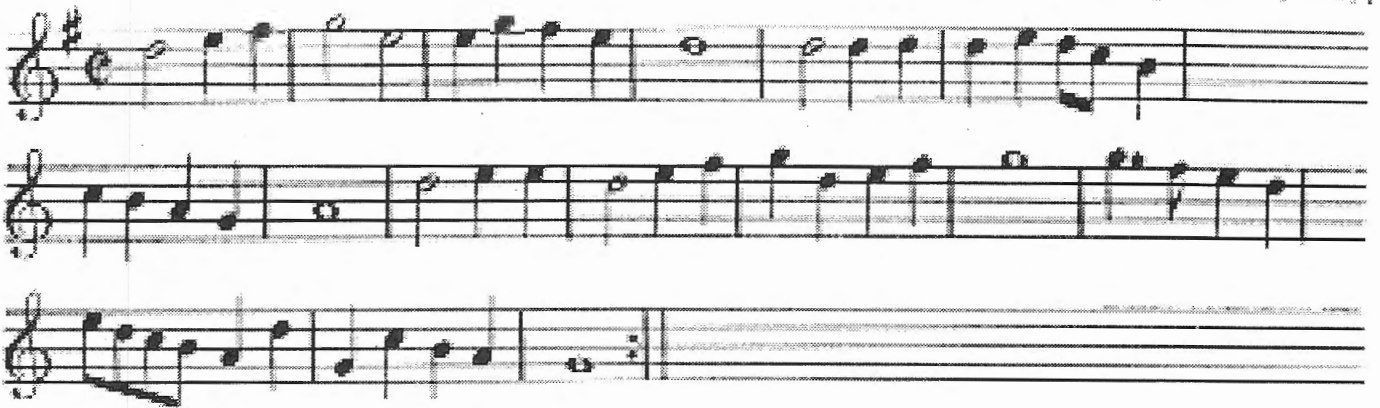
The World Turned Upside Down.
Cassette. Felton, CA: Gourd Music,
1992.

Hauley, Roy. 18th Century Songs.
Vol II. 1977. Manuscript.

- Have students choose a modern song with a catchy tune and add new lyrics that convey a common American sentiment or conviction or tell about a particular event.
- Write poems about modern American struggles, causes or events. Remember that lyrics are poems set to music. Some possibilities might be--environmental issues, terrorism, and bombing in our major cities, violence on the streets, saving a local historical structure slated for demolition, etc. Brainstorm other ideas as a class. Students can work in pairs, small groups or individually to choose a topic and write a song or chorus about it.

Chester

(Hulbert, 1807)



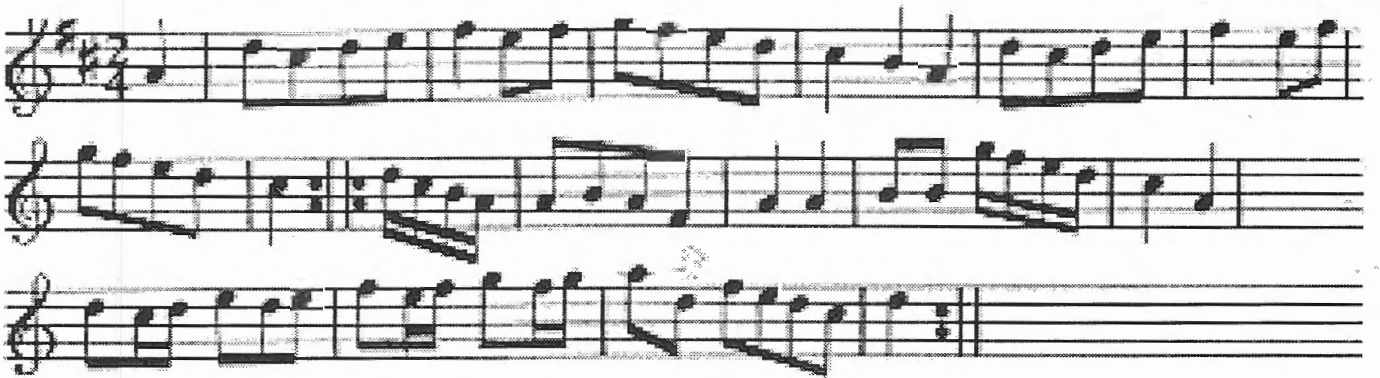
Haymaker

(Steel, 1820)



Free America or British Grenadiers

(Beck, ca. 1784)



The World Turned Upside Down



"Chester"

words and musick by William Billings

Let tyrants shake their iron rods
And slavery clank her galling chains
We fear them not; we trust in God-
New England's God forever reigns.

Howe and Burgoyne and Clinton, too
With Prescott and Cornwallis joined
Together plot our overthrow
In one infernal league combined.

When God inspired us for the fight
Their ranks were broke, their lines were forced
Their ships were shattered in our sight
Or swiftly driven from our coast.

The foe comes on with haughty stride
Our troops advance with martial noise
their veterans flee before our youth
And generals yield to beardless boys.

What grateful offering shall we bring?
What shall we render to the Lord?
Loud hallelujahs let us sing
And praise his name on every chord.

Amen

"Free America"

by General Warren

(To the tune of the British Grenadier)

That Seat of Science, Athens and Earth's great Mistress,
Rome,

Where now are all their Glories, we scarce can find their
Tomb:

Then guard your Rights Americans! nor stoop to lawless Sway,
Oppose, oppose, oppose, oppose, - my free America.

Proud Albion bow'd to Cesar, and num'rous Lords before,
To Picts; to Danes, to Normans, and many Masters more:
But we can boast Americans! we never fell a Prey;
Huzza, huzza, huzza, huzza, for free America.

We led fair Freedom hither, when to the Desert sail'd.
A Paradise of Pleasure, was opened in the Wild;
Your Harvest bold Americans! no Pow'r shall snatch away,
Assert yourselves, yourselves, yourselves, my free America.

Torn from a World of Tyrants, beneath this western Sky,
We form'd a new dominion, a Land of Liberty;
The World shall own their Masters here, then hasten on the Day,
Huzza, huzza, huzza, huzza, for free America.

God bless this maiden Climate, and thro' her vast Domain,
Let Hosts of Heroes cluster, who scorn to wear a Chain:
And blast the banal Sycophant, who dares our Rights betray,
Preserve, preserve, preserve, preserve my free America.

Lift up your Hands my Heroes! and Swear with proud
Disdain,
The Wretch who would enslave you, shall spread his Snares in
vain;
Should Europe empty all her Force, wou'd meet them in
Array,
And fight and shout, and shout and fight for North America.

Some future Day shall crown us, the Masters of the Main,
Our fleet shall speak in thunder, to England, France and
Spain,
And the nations over the Ocean spread, shall tremble and
obey,
The sons, the sons, the sons, the sons of brave America.

The Yankees Return from Camp or “Yankee Doodle”

Father and I went down to camp,
along with Captain Gooding,
there we see the men and boys,
As thick as hasty pudding

Chorus:

*Yankee doodle keep it up
Yankee doodle dandy,
Mind the music and the step
And with the girls be handy.*

And there we see a thousand men
As rich as Squire David;
And what they wasted every day
I wish it could be saved.

chorus

The lasses they eat every day,
Would keep an' house a winter;
They have as much that I'll be bound
The eat it when they're amind to

chorus

And there we see a swamping gun,
Large as a log of maple,
Upon a deuced little cart
A load for father's cattle.
chorus

And' every time they shoot it off,
It takes a horn of powder;
It makes a noise like father's gun
Only a nation louder

chorus

I went as nigh to one myself,
as Siah's underpinning;
And father went as nigh again,
I thought the deuce was in him.

chorus

Cousin Simon grew so bold,
I thought he would have cock'd it:
It scar'd me so, I shrink'd it off,
And hung by father's pocket.

chorus

And Captain Davis had a gun,
He kind of clap'd his hand on't,
And struck a crooked stabbing iron
Upon the little end on't.

chorus

And there I see a pumpkin shell
As big a mother's basin,
And every time they touch'd it off,
They scamper'd like the nation.

chorus

I see a little barrel too,
The heads were made of leather,
They knock'd upon't with little clubs
And call'd the folks together.

chorus

And there was Captain Washington
And gentlefolks about him,
They say he's grown so tarnal proud
He will not ride without 'em.

chorus

He got him on his meeting clothes
Upon a slapping stallion,
He set the world along in rows,
In hundred and in millions.

chorus

The flaming ribbons in their hats,
They look'd so daring fine, ah,
I wanted pockily to get,
To give to my Jemimal.

chorus

I see another snarl of men,
A digging graves, they told me,
So tarnal long, so tarnal deep,
They 'tended they should hold m.

chorus

It scar'd me so, I hook'd it off,
Nor stopt, as I remember,
Nor turn'd about till I got home,
Lock'd up in mother's chamber.

chorus

Objective:

To develop awareness of technical language and slang from another century.

Target Age:

Grades 4-8

Class Orientation:

Whole class

Time Needed:

30 - 45 minutes

Materials:

One copy of the Terms Sheet, cut into strips with one definition on each strip

Wordsmithing

Introduction:

Many Vermont students are rarely exposed to people speaking a different dialect of English, such as Jamaican English or Australian English. They may not be aware of the difficulty understanding that dialect because of differences in vocabulary and word meaning. Even though the early colonists spoke the same language we do today, many terms and words were different.

Activity:

Introduce students to 18th-century terms and common slang with a creative, fun-loving game. This game is played like the party game Dictionary. Give each student a strip of paper with one word and its definition printed on it. Have the student write the word on another sheet of paper and give three definitions for the word, labeled A, B, and C. Copy the actual definition of the word as one selection and make up the other two possible definitions. Collect the papers and read them aloud. Have students guess the real meanings of the words by choosing selection A, B or C for each word.

EXAMPLE:

jiggin iron:

A) an 18th century style of golf club

B) a hook for large pots

C) a flat iron for ironing boat sails

The correct answer is B

TERMS SHEET

lug the wrong sow by the ear - to capture the wrong person

quick work- the submerged planking of a ship

quick match - a wick by which cannons were fired

puff (n.) - an exaggerated statement

press money - money paid to army and navy recruits to induce them to serve and to bind them to the service agreement

nick nackery - a trick

camp news - rumors, likely to be false

horse-beef - rations of dubious origin

abatis - a military obstacle of live or dead trees with their butt ends facing the enemy

flummery - a sort of jelly thickened with cornstarch

segamite - a corn soup (adapted from an Algonquin word)

long arm - slang for a musket

loo - a card game, short for lanterloo

grave (v.) - to clean a ship's bottom and coat it with tar

grunt (n.) - a dessert made of dough filled with berries and steamed

ell - a measurement of 45 inches, originally the distance from the elbow to the fingertips.

foment (v.) - to bathe with warm medicated liquids

out party - a scouting party

ride rusty - to be stubborn

rum (adj.) - excellent

ropewalk - a shed in which twine was twisted into rope. The rope could be more than 1000 feet long.

rockahominy - an Algonquin word meaning parched corn, beaten into a powder like fine corn flour

redoubt - a small, completely enclosed fortification

whiffler - one who changes his opinion often

Objectives:

- To learn an 18th-century craft
- To learn about 18th-century lifestyle

Target Ages:

Grades 5 and up

Class Orientation:

Whole class

Time Needed:

3 class periods

Materials:

(can be found in Craft or Fabric Stores)

- 1/4" flat reed or chair caning reed for binding
- 5/8" flat reed for spokes and weavers
- 3/8" flat reed for weavers
- Clothes pins
- Bucket for dunking splints
- Sponges
- Scissors
- Pencil for marking reed (not pen)
- Ruler

A Market Basket

Introduction:

Many forms of vessels were used in the 18th century. Social class and availability of materials often determined what people would use for carrying items, serving food, or storage. Materials included wood, clay, reeds and natural fibers, pewter, silver or iron.

Activity:

Create a market basket which would have been used to carry food, keep sewing or knitting organized, etc.

- SOAK skeins of reed for 1/2 hour before unrolling.

• CUT AND MARK:

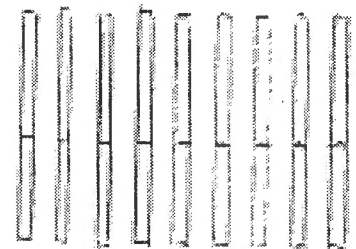
- 9 pieces 5/8" reed each 25" long, mark centers with pencil; 6 pieces 5/8" reed each 28 1/2" long, mark centers with pencil; 5 pieces 3/8" reed each 15" long, mark centers with pencil.

• LAY OUT BASKET BOTTOM:

- Lay out the (9) 25" spokes spaced 1/2" apart on a table. Match centers in an even row.

• WEAVE BOTTOM OF BASKET:

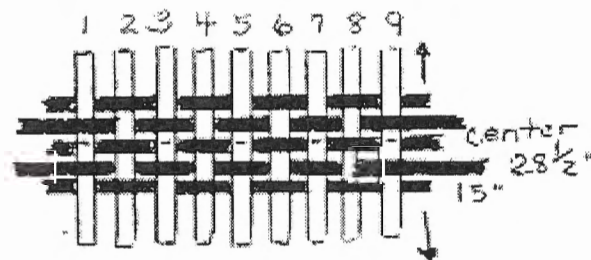
- Using a 15" splint, weave over and under the 9 spokes along the center line. Place the center line of the splint in the middle of the 5th spoke.
- Weave a 28 1/2" splint on each side of the 15" splint, over and under the opposite spokes. Make sure the center mark on both splints is on stake #5.



- Continue, alternating 15" and 28 1/2" splints until all 11 splints are used. The center mark of each splint should be located on spoke #5.
- Saturate basket bottom with a wet sponge. Bend the 15 splints 180 degrees to the inside of the basket and tuck the ends under a spoke. If the splints begin to crack, the basket is not wet enough. Soak and wait 5 minutes and try again. Cut splints so they do not stick out on the inside edge of the spoke.

• TURNING UP SIDES OF THE BASKET:

- While the basket bottom is very wet bend the spokes on all four sides straight up at a 90 degree angle. Use a ruler or other straight edge to get a sharp bend.
- Measure the circumference of the basket and add 3 inches to measurement. (This measurement should be approximately 33").
- Cut 3 weavers from 5/8" reed using the measurement figured above. Soak the reed for 2 minutes.



• WEAVING THE SIDES OF THE BASKET

- Starting on a spoke in the middle of one long side of the basket, weave one of the 3 splints over and under completely around the basket. Clothes pins can be used to hold the weaver in place. When finished, overlap the ends and hide them behind stakes.
- Repeat for the next 2 weavers, starting on alternating sides of the basket.
- Cut 3 weavers from 3/8" reed. Soak. Weave into basket, as above. Cut 3 weavers from 5/8" reed. Soak. Weave into basket, as above.
- Add additional 3/8" weavers to make basket the desired height.

• FINISHING OFF THE TOP OF BASKET

- Soak top of spokes in water for 5 minutes. Fold a spoke over the last row of weaver to hold the weaver down, cut off the end leaving just enough to tuck under the third weaver from the top. Continue, as above, with all spokes. All ends should be slipped under and concealed

- **BINDING THE TOP OF THE BASKET**

- Cut 2 pieces of 5/8" reed 1/2" bigger than circumference of the top of the basket. Lay the pieces around the basket top, one on the inside, one on the outside. Hold in place with clothespins. Using a long piece (4' or more) of 1/4" flat reed or chair caning reed begin to lace the top of the basket, going through the space between the stakes and over the top of the binder and down through the space in the next stake. Lacing should look like this: // // // // /. Lace around the entire basket top. By lacing around the basket top again going in the opposite direction, an X X X X X pattern can be created. Tie binding edges together and tuck under stakes.

Natural Dyeing

Objective:

- To introduce students to the concepts of self-reliance for basic necessities.
- To help students understand the many uses of natural resources, and to teach them a folk craft they can enjoy all lifelong.

Target Ages:

Younger kids will need assistance with the cooking part of dye preparation, but this activity can be enjoyed by all ages.

Time Needed:

Two class periods

Class Orientation:

Any Configuration

Materials:

Natural materials listed in the recipes

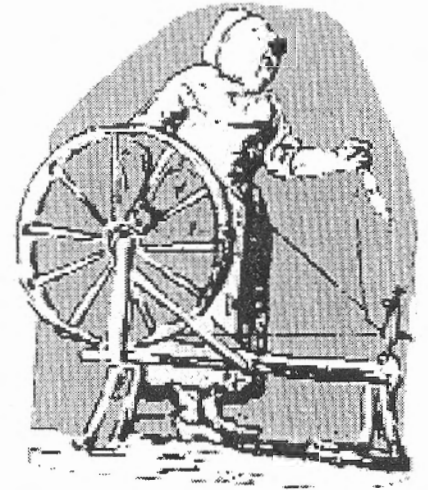
- Alum (available at natural food stores)
- Steel or glass cookware
- A stove or hot plate
- Steel or wooden spoons
- Cheese cloth or old sheets torn into two-foot squares

While at the Mount:

Look for samples of clothing worn by the men at Mount Independence. Why aren't there any fabric samples?

Introduction:

The desire to look good is not new, even for colonial Americans whose standards of cleanliness and attractiveness were very different from ours. The average Vermont teenager may have only had two outfits, but they were carefully made of fabric that would last a long time, wear relatively comfortably, and was as homespun as could be. What does that mean? If you had lived in 1777, your clothes would probably have been made of linen from flax grown on your farm, or a neighbor's. They might also have been made of wool from sheep you tended and helped shear. If you were a girl, you learned how to card wool, ret flax and comb the fibers. While a lot of women knew how to spin fibers into thread or yarn, it was a time consuming project often done by professional spinsters.



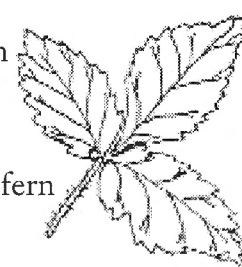
Once the thread or yarn was spun, typical winter chores for women were sewing, knitting, crocheting, tatting, and weaving. In the spring, the first ferns were gathered up and the leaves were made into a dye bath.

Remember that if you wanted your clothes to have a color other than light tan (the color of natural flax), dingy black or yellowish white (sheep), you would have to dye them, just as we do today. There was no dye available in a supermarket, so most people made their own out of natural materials.

Vermonters may have a short growing season, but an abundance of natural materials are found here that produce excellent dye baths. Ferns, sumac, dandelion, blue berry, black walnut bark, red cabbage . . . The list is extensive.

Activity:

- Gather fern leaves and stalks before they go to seed. Break or cut off the soiled root ends. Rinse leaves in cold water, then place into a large pot and add just enough water to cover the leaves when they are pressed down with a spoon.
- Bring the water to a boil. Reduce heat so the water simmers and let it sit until the ferns are nearly mush.
- Using the spoon, scoop out leaves and stems (don't worry if some pieces remain). Mash the cooked fern with a fork or mortar and pestle. Return it to the pot and add two tablespoons of alum and three tablespoons of white vinegar. Let the mixture reach a boil again and add a tablespoon of table salt. (Kosher salt can be used as well but you'll only need about half a tablespoon.)
- Place a cheesecloth drape in a large pot or bowl and slowly pour the mixture onto it while someone holds the corners. Lift the cheese cloth up from the pot and allow the mixture to drain. If you can, tie the cheese cloth to make a bag, and hang it over the dye while it drips. When dripping slows and the mixture is cooler, gently squeeze the cheese cloth to remove excess liquid.
- Return the strained liquid to the stove and simmer, stirring occasionally, until the mixture is reduced by about half. The dye will appear greenish.
- Remove from heat and let sit until it is cool. If there are still pieces of fern in the dye bath, stain it again through a sheet or tightly-woven muslin.
- When the dye is cool, it is ready to use. Dye bleached muslin or other 100 percent cotton fabric. The fern bath makes a yellow dye. If the color is not as rich as you'd like, you can add the liquid from boiled



Notes:

carrots and reduce it by half, or add a pinch of ground cinnamon. Let fabric air dry, then run through a very hot cycle in the dryer. Wash in cold water on gentle cycle. Do not hang in bright sunlight to dry. Dyes will change color depending on the kind of detergent you use. A mild soap like Ivory Snow is best for maintaining color. The above recipe can be used to make other dyes:

Red cabbage - purple dye

Blueberries - maroon dye

Beets -fuchsia

Black beans - blue

Sumac berries - rusty yellow or brown

Black Walnut bark - tan

Dandelions (the heads only) - pale yellow

Tea - golden brown

Coffee - brown

Don't just boil vegetables if you don't intend to eat them; colonial Americans didn't waste food and we shouldn't either!

- Experiment with other plants to see what kind of dyes you can create. Try different barks. Don't worry if some don't work. Our ancestors learned through trial and error too.

Quill Pens & Natural Ink

Writing Tools of the 18th Century

Objective:

To experience writing tools of the 18th-century and learn about journals.

Target Ages:

Grades 3-8

Classroom Orientation:

Whole class or individual

Time Needed:

Class period, 45 minutes.

Materials:

For Quill Pen:

- Feather.
- Scissors
- Paper clip

For Berry Ink:

- 1/2 c. Ripe berries
- 1/2 t. Salt,
- 1/2 t. Vinegar,
- 1/8 t. Alum
- Food strainer,
- Bowl
- Wooden spoon,
- Baby food jars with tight fitting lids.

Introduction:

Learning to write has been a valued skill throughout history. Writing has changed over time from scratches on clay to word processing. During the 18th century, it was common for soldiers, officers, and sutlers to keep daily accounts of what was happening. These journals have helped piece together events on Mount Independence. We call these records primary documents, as they are actual records written during the Revolution. Quill pens were used to keep these accounts.

Activity:

To Make Ink

- Collect wild raspberries - sort out the leaves and stems and place about three tablespoons of ripe berries in a sieve.
- Press the berries with a spoon and squeeze the juice into a cup. Mash the berries until the juice is removed.
- Add 1/2 t. white vinegar, 1/2t. cold water and 1/8 t. alum to the juice).
- Stir until alum dissolves. Store ink in a tightly sealed container or freeze until you are ready to use it.
- Raspberries will produce a maroon ink. Pink ink can be made from canned beat juice, vinegar, and alum Blue ink is made by soaking black beans (frijoles negros) overnight. Drain liquid from beans and reduce by half. Add 3 tablespoons of the liquid to the vinegar and the alum.



Notes:

- Brown ink is made from the clusters of sumac berries (nonpoisonous variety). The fuzzy clusters are boiled, then pressed in a sieve. Add vinegar and alum.

Activity:

To Make Quill Pen:

- Cut the shaft of the feather as illustrated (illustration of slanted tip)
- Use the end of the paper clip, a toothpick or a needle to clean out the quill end.
- Dip in ink & practice writing

DO NOT PRESS TOO HARD WHEN YOU WRITE OR YOU COULD SPLIT THE QUILL. More experienced users of quill pens can cut a small split in the shaft tip (illustrate) See the Chapter on the British Occupation for journal writing ideas.

9

The Fruits of What We Fought For

Developments on Mount
Independence since
1777



And the Fruits of What We Fought For Developments on Mount Independence since 1777

The lack of standing structures, large military equipment and hardware today makes it hard to imagine the bustling frontier fortification that existed on Mount Independence in 1776-1777. Where is evidence of the many structures, landscape features, and other substantial signs of the Revolutionary War period? Archives indicate the British and Germans attempted to prevent the American reuse of the site and any remaining ordinance and provisions by burning hundreds of buildings as they withdrew to Canada on November 8, 1777 by order of General Carleton following the British defeat at the Battle of Saratoga. However, they did not remove or destroy all the existing elements or equipment.

The individuals who removed these objects and later activities on the site are a fascinating part of the history of Mount Independence. The lack of buildings on the Mount, and the fact that much of the frontier outpost site has reverted to forest, leads many people to believe the Mount has sat "silent and virtually unused since its abandonment by the military in 1777" (Howe 1991:1). However, several inter-

esting individuals and important activities in the history of Vermont have been associated with Mount Independence since the Revolution. This unit concentrates on these individuals and activities, including political and military, agricultural, industrial, cultural tourism, and preservation efforts. Evidence of this post-Revolutionary period is, however, yet to be uncovered as there is scanty known recorded data (Murray 1967:109).

Post-Revolutionary Political and Military Activities on the Mount

Although little documented evidence exists, Mount Independence was the site of several post-Revolutionary political and military activities. Prior to Vermont's admission into the Union, Mount Independence was rumored to have served as a secret meeting place for Vermonters and British authorities including Ethan Allen and Sir Frederick Halimand, the British governor of the Province of Quebec. Although Allen later wrote that these talks were ploys to keep the British from invading Vermont Allen's opponents claimed he was considering having Vermont rejoin the British Empire!

During the period when the Continental Congress refused to accept Vermont as a separate state, Vermonters declared themselves independent in defiance of New York, New Hampshire, King George, and "all the evil powers of the earth and air." Vermont's constitution, accepted January 1777, was the first to outlaw slavery and to institute broader voting rights (for all Protestant males, regardless of income or land ownership).

Several decades later, Mount Independence was again the site of military activities, this time during the War of 1812 when soldiers were bivouacked on Mount Independence and at Fort Ticonderoga. Artifacts which may have been associated with this time period have also been found. The best known is the flintlock musket on display in the Mount Independence Visitor Center. The musket, made for the State of New York

between 1809 and 1811 by Lemuel Pomeroy, provides evidence of the early 19th-century activities. It was recovered from the muddy bottom of Lake Champlain during the 1993 archaeological survey of the waters around Mount Independence conducted by the Lake Champlain Maritime Museum for the Vermont Division of Historic Preservation.

The Settlement and Founding of the Town of Orwell

Following the end of the War of the Revolution, Scotsman John Charter, the first European American resident of Mount Independence, returned to Orwell with his wife and family of 10 children. His homestead, at the north end of Mount Independence near the lake shore, is considered the first permanent settlement in Orwell. When Joshua Tracy, an agent for the original grantees under the 1763 New Hampshire charter, arrived in Orwell to survey the town in 1783, he encountered John Charter who, as a squatter, claimed 100 acres. Charter and his family resided on their homestead until 1808 when the farm was sold and Charter moved west with his sons.

From 1785, the early European American settlement of Orwell was focused southeast of Mount Independence closer to the road network and near the falls of East Creek where later the first village of Orwell was located. Several soldiers, including Ephraim Fisher, Eber Murray, John Pepper, Lieutenant Jonas Rice, Colonel Azel Abell, and Ephraim Blood, who were garrisoned at Mount Independence during the Revolutionary War, settled nearby on Catfish Bay (Orwell Historical Society 1988).

In 1786, conflicts between New Hampshire and New York over land grants were settled. New York officials gave up their claim to Vermont after accepting \$30,000 and Vermont was admitted to the Union as the 14th state on March 4, 1791.

Included in Rutland County until 1847, the town of Orwell (now in Addison County) was organized in 1787 and residents, including John Charter, took the Freeman's Oath and the Oath of Allegiance. Today, like Charter, adults registering to vote in Vermont must still raise their right hand and recite the Freeman's (Voter's) Oath.

Agricultural Activities on the Mount and in Orwell

Between the first census of 1791 (listing 778 people) and second census of 1800 (1,324 people), the population of Orwell nearly doubled (Swift 1977:55). Why were these early settlers coming to Orwell?

Farming has played a major role in the history of Mount Independence. While land bordering East Creek is choice agricultural property, many sections of the mountaintop of Mount

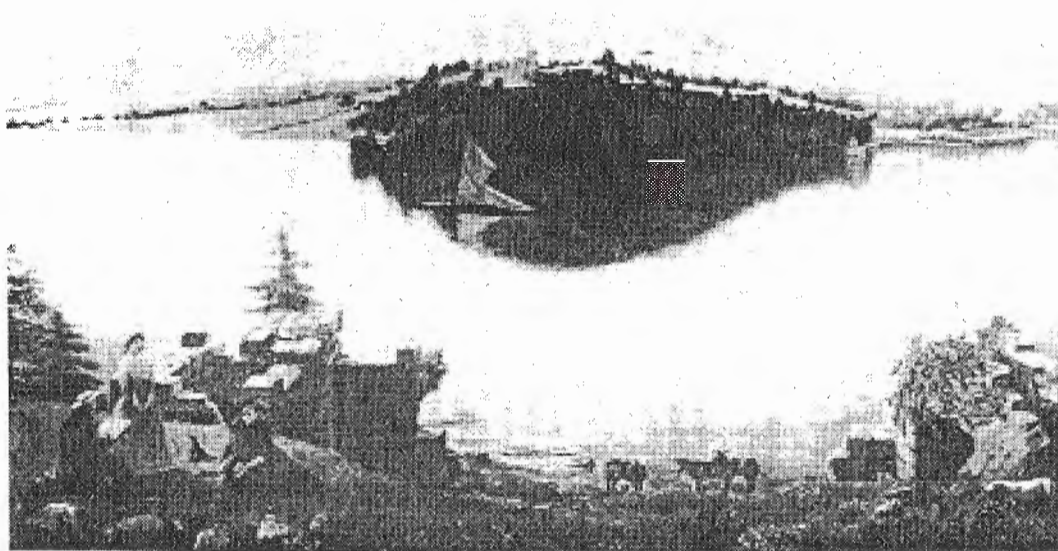
Independence have limited agricultural value due to the steep slope and poor drainage. Because of this, sections of the Mount have never been plowed, helping to preserve some of the historic cultural resources.

Nevertheless, parts of the Mount were sustainable for

agriculture. A large open meadow on the west side of Mount Independence is believed to be where the three American brigades planted vegetable gardens. In addition, the Mount also served as pasture for dairy cows,

sheep, horses, and other animals which were allowed to graze the site.

Nineteenth-century historians H. P. Smith and W. S. Rann (1886:558) stated that Scotsman John Charter selected a farm at the north end of the Mount which "has always been considered the most fertile and productive of any land in town."



"Ticonderoga from Mount Independence," painted by John Howland Pell in 1873. Shown in the foreground, Mr. and Mrs. John Howland Pell and Mr. and Mrs. Morris Pell. From Fort Ticonderoga collection.

Eleanor Murray, former curator of Fort Ticonderoga liked to think it was John Charter's little cabin that appears in the very early paintings. Possibly it was his small house that is described in several accounts that "the zig-zag battery of fifty guns passed behind as it crossed a cornfield. Early pictures of Mount Independence also show split rail fences, horses, two wheel carts, pasture lands, cows, and on the lake boats with sails" [Murray 1967:111].

In addition to John Charter, several other farmers are known to have worked the fields and/or resided in the vicinity of Mount Independence. An 1810 area map of the Mount Independence vicinity lists Benjamin Ferris and Associates, as well as the "names Leonaras and Austin, a farmhouse, a meeting house, a ferry across the Lake and a furnace" (Murray 1967:111). Nineteenth- and twentieth century owners included the Clarks, Millers, Kimballs, Platts, and Pells. Some of these families built structures and resided on the Mount. The Kimball farmhouse stood on the north end of the Mount, and some cabins were built along the shoreline.

By and large, 18th-century farmers on Mount Independence operated diversified, self-sustained farms. The owners consumed most of the food they produced, including wheat, vegetables, fruit, other crops, and livestock.

In the 19th century, many farmers in Orwell shifted from growing only what they needed (subsistence farming) and began to specialize. Many in Addison County turned to raising cattle. Assisted by the introduction of the railroad, the dairy industry

thrived. Orwell cattle were in demand all over New England. Although now the predominant breed is the registered Holstein-Fresian cattle, in the 1880s, Durhams, Devons, Jersey, and Ayrshires were favored (Orwell Historical Society 1988:82).

By 1825, the demand for wool pushed some Orwell farmers to breed Merino sheep and gather wool. It has been said that "nearly every farm of any pretensions had its flock of more or less thorough-bred sheep" (Smith and Rann 1886:556). The sheep industry brought Orwell its greatest era of agricultural prosperity between 1825 and 1860.

Industrial Activities on and Near Mount Independence

Several individuals in the post-Revolutionary War period realized the potential value of the natural resources of Mount Independence. The flint was quarried and a copper mine was established on the west side of Mount Independence. Nearby other industries were established in the vicinity, including an iron foundry, blast furnace, gristmill, sawmill, and woolen mill. These utilized some of the resources of the Mount in their operations. It is likely early occupants of the area were also involved in the manufacture of potash used in making bleach and soap. In the process, wood was burnt and the ashes mixed with a liquid to produce lye. When the liquid was boiled, potash was left. This industry was abandoned in the early 1800s when easier methods using sodium were discovered by the French.

In addition to natural resources, there were the objects littering the area which had once been New England's second largest city! Can you imagine, after the Revolution the abandoned stone and brick works, lumber, and discarded iron tools and weapons? Early settlers found Mount Independence's abandoned fort was "an easy place to get stone for houses or the foundations of houses" (Murray 1967:112). In addition, 500 cast iron cannons (with their trunnions knocked off), carriage



A section of the Fort Ticonderoga chain which spanned Lake Champlain between Mount Independence and Fort Ticonderoga lies in front of a statue of George Washington at the Forest Lawn Memorial Park in Los Angeles, California.

wheels, mortar beds, and a myriad of other military hardware were taken. The Fort Ticonderoga chain, which spanned the lake between Mount Independence and Fort Ticonderoga and was cut by Burgoyne's British ships, traveled across the country and a section of the chain is draped across the marble base in front of the J. Q. A. Ward bronze statue of Washington at the Forest Lawn Memorial Park in Los Angeles, California (Murray 1967:116).

Matthew Lyon's Iron Works

Matthew Lyon is one of the individuals responsible for removing much of the abandoned iron from Mount Independence and other battlefields in the region, including Hubbardton, Bennington, Skenesboro, Ticonderoga, and Crown Point.

Matthew Lyon established a blast furnace in Orwell near Mount Independence on East Creek. The 1796 Whitelaw map shows that the furnace in Orwell was linked to Fair Haven by an early road.

Established before 1788, the ironworks site on East Creek in Orwell may have been the first blast furnace erected in Vermont. Several important raw ingredients required for iron manufacture were available in the Mount Independence region, such as iron ore beds, limestone, water, and charcoal (derived from burning timber).

On October 14, 1785, a petition from Matthew Lyon was read "praying that a quantity of broken cannon mortars

mortar beds, carriage wheels on Mount Independence being the property of the State might be sold to him for the purpose of making bar iron at his works. (State Papers of Vermont 3:169)

Responding favorably, a law was passed in 1785 directing the sale of the remains:

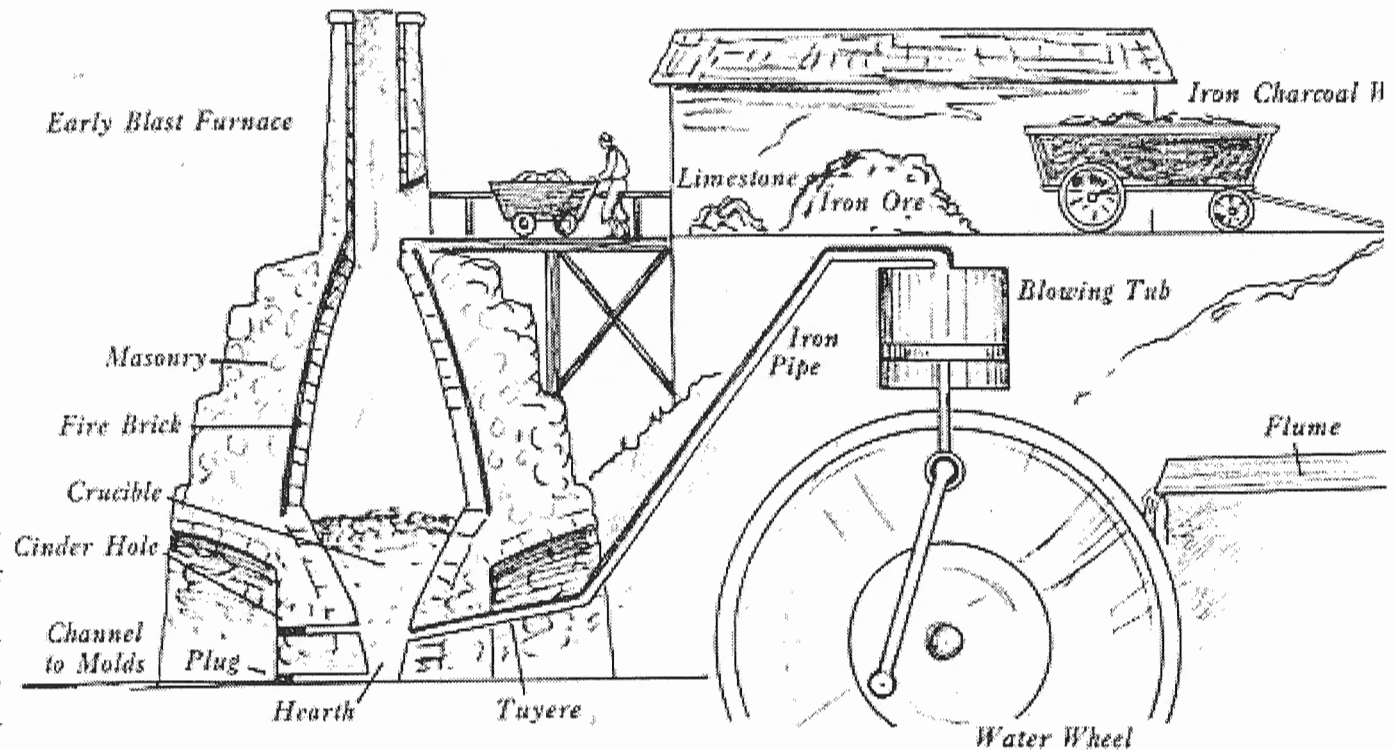
Whereas there are a number of cannon, mortars, mortar beds, bombshells, carriage wheels of cast iron in and about Mount Independence which are public property, which are rendered unfit for service and may be of service in making bar iron . . . sell the same at public vendue [auction] to the highest bidder. (State Papers of Vermont 3:169).

Legal provisions differed for military objects recovered from underwater and maintained that "cannon found below low water mark were property of him who has taken them up" while "any taken up though not below low water mark, will be paid reasonable com-

pensation for service" (Murray 1967:115).

Lyon organized parties to scour Mount Independence and the nearby battlefields in search of discarded and abandoned military hardware. Record has it that one 24-pounder cannon was taken to the Fair Haven forge "where it was discharged by the heat, after being loaded over twenty years before, and after it had spent a considerable time at the bottom of the lake" (Murray 1967:114).

Lyon's forge did considerable business, and as McLaughlin (1900) concluded, the broken mortars and cannons



Early Blast Furnace

From: Coggins, Jack Ships and Seaman of the American Revolution. Stockpile Books, Harrisburg, PA, 1969.

and small arms about Ticonderoga, and on many a Revolutionary field of fight were literally beaten into plough shares, and licked into new shapes for agricultural purposes in the blazing furnace blasts.

Although Lyon's ironworks manufactured axes, hoes, spades, shovels, blacksmith's anvils and bellows, other tradesmen tools, clothier screws, and chains, it concentrated on producing bar iron and rods for the manufacture of nails.

However, iron ore extraction was not a long-lived industry in Vermont and apparently the site in Orwell was located too close to the local water table. The Orwell furnace probably suffered from poor ground insulation and the cold, damp ground would have drained heat away from the bottom of the furnace hearth and resulted in a large number of defective castings and inoperable periods (Rolando 1992).

Lyon tried to improve his ironworks and stimulate the industry in Vermont in several ways. For example, beginning in 1788, Lyon was authorized by the state legislature to raise money via a lottery to either rebuild or erect a new blast furnace in Orwell. At the time, the lottery was a popular method for raising private and public funds. Lyon also requested state aid and a loan of 800 pounds. However, Lyon's attempts to raise money over the

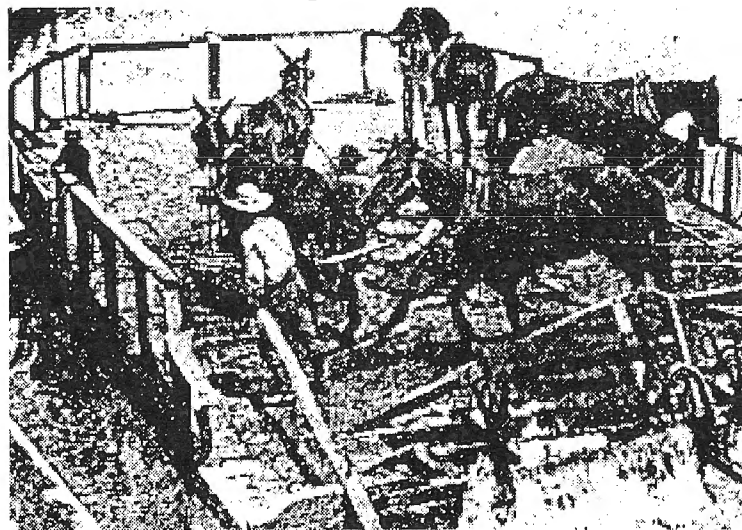
next few years were unsuccessful and his business activities on Mount Independence and in Orwell were discontinued.

Commercial Activities in the Vicinity of Mount Independence

Several commercial operations have thrived in the vicinity of Mount Independence. As early as February 1784, the value of the lakeshore region was identified when David Powers petitioned the legislature "praying for liberty to establish a ferry from Mount Independence to Ticonderoga" (*State Papers of Vermont* 3:169). Powers, however, never received authorization

and in general, commercial activities in the vicinity have been focused on two sites along the lakeshore just south of Mount Independence: Chipman's Point and Leonard's Wharf.

Chipman's Point (once known as Shole's Landing) was developed about 1805 by Joseph Sholes. It was the largest settlement in Orwell between 1820 and 1840. This early village was a shipping stop and a transportation hub for freight barges and steamers traveling between Canada and New York. The village included a ferry wharf, several stores



Historic photo of horse ferry such as those which operated on Lake Champlain. From: *National Geographic*, October 1989

(one built around 1810 by Walter Chipman, the first postmaster of this hamlet), boathouses, a hotel, a tavern, and private dwellings. Some of the standing historic structures are listed on the Vermont State Register of Historic Sites. Although the commercial success of Chipman's Landing declined following the introduction of the railroad in 1871, it has remained a ferry landing and summer resort.

Leonard's Wharf (also known as Mud Dock) was established to compete with Chipman's Point. It flourished primarily in the 1840s as a freight shipping and receiving center with a store (Orwell Historic Society 1988:54). Now the site of the Plunder Bay Marina, exposed historic foundations and dock provide evidence of its historic past.

Cultural Tourism in the 19th Century

Mount Independence remains one of the most pristine Revolutionary War sites in the United States. Rocky walls and surrounding swamps made it an uninviting place to explore. There was no road suitable for horses and buggies, nor did its original structures remain. Orwell village was remote enough that a trip to the Mount was uncomfortable especially when we realize there was no rest stop for weary travelers once they arrived.

American ingenuity came up with the answer. In the early 1800s, the sister forts of the Northern Tour were quite popular tourist destinations. Steamboats regularly brought tourists from Ballston and Saratoga Spa down Lake Champlain

to visit Fort Ticonderoga and the Mount.. But even this early, visitors noticed the decay of the sites. Abby May a young Bostonian woman convalescing in Saratoga Spa wrote in her journal in July 1800, “. . . for several miles around, every object confirms it--the heaps of stones on which the soldiers used to cook--the ditches, now grass grown and forsaken graves all, everything makes this spot teem with melancholy reflections.”

The significance of Mount Independence was so great that it warranted tours by future presidents of the United States. Thomas Jefferson and John Adams visited the Mount after the war. Even Daniel Webster, in his speech in 1832 to honor George Washington's 100th birthday, was so moved by the story of the forts on Lake Champlain, he said, “Whoever visits the scenes of the Revolution feels the sentiment of love of country kindling anew.” Yet for all the attention and apparent popularity, the sites were allowed to continue their decline.

An 1840 visit by Benson Lossing brought more news of neglect.

The broken ruins around me, the lofty hills adjacent, the quiet lake at my feet, all fading into chaos as evening shadows came on, were in consonance with the gravity of thought induced by this place and its traditions.

Ownership often changed. And those who did own the land were likely to use it for grazing livestock or other agricultural purpose. This did not sit well with Lossing, who noted in his volumes on the Revolution that “the careless agriculturalist, unmindful of the sacredness of the ditch and mound that scar

his fields, is sowing and reaping where marble monuments should stand.”

All that remains at the Mount are speculations about where many buildings stood, as well as what the buildings were. The location of the stone fort is roughly known, as is that of the hospital, but there had to have been a number of other structures essential to life on Mount Independence. As one lone tombstone was recorded in 1925 (that of a Richardson Stoddard), it wasn’t until a great number of men died from illness, exposure, and injury during the years of occupation that deaths were recorded. But graves were either unmarked or their locations were not properly recorded.

In the early 1900s, Mount Independence was a pleasant place for church picnics (Murray 1967: 116). Stephen Pell purchased Fort Ticonderoga and Mount Independence in an effort to restore them. But it was during this time of renewed interest in the sites that unauthorized digging by amateur historians looking for souvenirs occurred. Mr. Pell purchased Mount Independence artifacts from people who had dug them illegally. By 1954, the Fort Ticonderoga Association owned the majority of the land on the Mount and strove to protect and preserve it. Both sites today are developed in very different ways, Fort Ticonderoga is rebuilt; the Mount is in a most natural state.

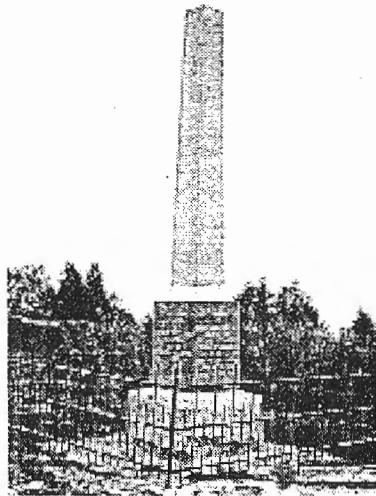
Mount Independence in the 20th Century

In the 20th century, numerous individuals and organizations have been committed to researching and preserving the historic archaeological resources of Mount Independence. The two primary 20th-century owners have included the Fort Ticonderoga Association, founded and led by the Pell family, and the State of Vermont. The Fort Ticonderoga Association property includes two principal fortifications of the Mount, the star fort and the horseshoe battery; the State of Vermont acreage includes the site of the Revolutionary War hospital. Together the State of Vermont Division for Historic Preservation and the Fort Ticonderoga Association oversee the conservation, interpretation, and preservation of Mount Independence. Local groups, especially the Mount Independence Coalition, greatly assist by serving as a financial resource and volunteer labor force:

Monuments on Mount Independence

Walk the trails of Mount Independence and visit the three monuments erected to commemorate the significance of the site during the Revolutionary War.

The Daughters of the American Revolution, Hands Cove Chapter of Shoreham, erected a 14-foot-tall granite obelisk on August 20, 1908, at the north end of the Mount near the site of the shore battery (Orwell Historical Society 1988:18). The following inscription appears on a bronze plaque on the west face of the monument:



Mount Independence Monument
built by DAR
in Orwell, Hands Cove
Chapter

Memorial to the brave soldiers buried here from 1775 to 1784 in unmarked graves and to the military importance of this Mount in the War of the Revolution.

The Society of the Colonial Dames stone memorial was constructed in 1963. It was placed at the Horseshoe Battery and is said to be located where a Revolutionary War flagpole once stood.

In 1976, in observance of the bicentennial year of independence, the Sons of the American Revolution also commemorated the site by mounting a bronze plaque on a large rock outcrop near the entrance to the Mount.

Threats to Mount Independence and Its Resources

Although the minimal amount of development and disturbances on Mount Independence have helped preserve the natural and cultural resources, Mount Independence and adjacent archaeological sites have been, and continue to be, threatened.

Mount Independence has experienced a great deal of

unauthorized and damaging digging in which important details of the Mount Independence story have been removed or destroyed. In some cases, individuals have stolen artifacts from Mount Independence "by moonlight and by lantern light" (Murray 1967:117). The steady theft of artifacts on Vermont property stimulated the Vermont Board of Historic Sites to erect the heavy chain link fence at the south end of Mount Independence. Before this, some thought the following sign on the Mount may have been effective in deterring trespassers and looters: "Beware of the rattlesnakes; nearest serum Glens Falls or Rutland" (Murray 1967:117).

Another threat to the resources of Mount Independence came in the early 1970s when an electrical power company wanted to establish a nuclear power plant on the north side of East Creek. The construction project included a 1,700-acre cooling pond which would have been created by a dam spanning East Creek. Behind the dam, all lands to the 180-foot contour (see U.S. Geological Survey map) would have been flooded which would have impacted numerous archaeological sites on and near Mount Independence. Fortunately, these plans were not developed. Questions remain, however, regarding what part the threat to the archaeological resources and the proximity of the Champlain Thrust fault line played in the final decision not to build the plant.

We were there

Matthew Lyon, a "New Man"

Matthew Lyon was one of the "new men" of the American Revolution who profited from the post-war expanding economy. His personal history combines images of a folk hero rising from the bottom of the social ladder with that of a red-haired, cantankerous rebel who disliked the privileged elite and shocked them with his opportunism. History indicates Lyon was connected with and profited from activities connected with Mount Independence. For more information refer to the Industrial Activities section of this chapter. The two most important associations involve his participation in the capture of Fort Ticonderoga on May 10, 1775, and his collection and reuse of abandoned iron hardware on Mount Independence. In fact, Lyon is one of the individuals responsible for removing much of the abandoned iron from Mount Independence and

other battlefields in the expanded region, including Hubbardton, Bennington, Skenesboro, Ticonderoga, and Crown Point.



Matthew Lyon (1749-1822), a prominent and colorful, albeit controversial, figure in early Vermont and American history, was born in Ireland in 1749. One of the first clues to his rebellious and daring nature took place when he was 15; he sailed to America and became an indentured servant to work off the cost of his passage. He served his indenture in Connecticut under two masters, the last of whom bought him for a "yoke of bulls." In the years following, his favorite exclamations were: "By the bulls that bought me!" and "By the bulls

that redeemed me!"

After serving an indenture in Connecticut, Matthew Lyon began to acquire property, interact with some of

Vermont's most famous individuals, and take part in some of Vermont's most famous events. For example, in 1773, Lyon married Mary Horsford, a cousin of Ethan and Ira Allen. Following her death, he married widow Beulah Galusha, daughter of Thomas Chittenden, who later became the first Governor of Vermont.

Lyon received land grants from New Hampshire's Governor Benning Wentworth and emigrated to Vermont, initially settling in Wallingford, then Arlington, and later Fair Haven where he is considered a founding father of the town.

In 1774, Lyon joined Ethan Allen's Green Mountain Boys in the battle for independence. Lyon's military career is colorful and controversial. His first assignment as a second lieutenant was disastrous because during an assignment in Jericho, his company mutinied and left their posts. Lyon and his superior officers were court-martialed and dishonorably discharged. Lyon, who denied his part in the event, nevertheless was rudely nicknamed the "Knight of the Wooden Sword." Although the affair damaged his reputation, not long after, General St. Clair recommended Lyon to General Schuyler. Lyon was reinstated, promoted to captain, appointed paymaster of the Northern Army, and reassigned to Colonel Seth Warner's regiment. In this capacity, he may have first stood on Mount Independence. He participated in the capture of Fort Ticonderoga on May 10,

1775 and years later on the floor of Congress proclaimed to have fired the first cannon at Fort Ticonderoga in celebration of its capture! Lyon also joined Seth Warner's expedition to seize Crown Point. In 1777, he participated in the Battle at Hubbardton and the defeat of Burgoyne at Saratoga. Ultimately, he achieved the rank of colonel.

Outside the military, Lyon's leadership abilities were recognized. He became a member of the Revolutionary Council for Safety, the governing body of Vermont prior to its constitutional convention. He also served as deputy secretary to Governor Thomas Chittenden, assistant treasurer of Vermont under Ira Allen, and clerk of the Court of Confiscation. In this role, while raising money to support the army and pay off war debts, Lyon took advantage of his official position and acquired substantial choice properties, seized from Tories in Orwell and Fair Haven. He spent many years as a town and state legislator and representative, and before his death was elected to Congress from three different states (Vermont, Kentucky, and Arkansas).

Another important connection Matthew Lyon had with Mount Independence stems from his money-making operations in the early iron industry of Vermont. Prior to the War of Independence, colonists were restricted from establishing new ironworks and were forced to obtain supplies chiefly from England. After the war, Lyon established Lyon's Works, a

major iron-making center around the falls of the Castleton River in Fair Haven and a blast furnace in Orwell near Mount Independence on East Creek. In addition to natural resources of limestone, water, and wood, Lyon retrieved a myriad of iron objects from Mount Independence which he recycled into iron tools and hardware (see Industrial Activities section).

By the 1790s, Lyon's political activities, as the leader of the Jeffersonian Republican movement and a Congressman from Vermont, were taking valuable time. In every election, Lyon affirmed he was a "representative of the commercial, agricultural, and manufactural interests" dedicated to egalitarian democratic principles. He heatedly challenged the privileged elite who had inherited their wealth and social position and the federal administration which operated within "a humiliating and degrading system of empty pomp." He also criticized Federalist newspapers for "vomiting forth columns of lies, malignant abuse and deception." As his opponents called him a "Vermont beast" and would not print his acid rebuttals and editorials, he published his own newspaper, the *Scourge of Aristocracy*.

Lyon, however, did not limit his passionate beliefs to the written page. His fiery temper often exploded and his political career included public episodes of physical violence with his opponents.

One of these altercations received national notoriety when Lyon and Roger Griswold of Connecticut, an ardent Federalist, got into a brawl on the floor of Congress. Griswold accused Lyon of cowardice and made reference to the "Knight of the Wooden Sword" episode. Lyon spit in his face and Griswold responded by hitting Lyon over the head with his cane several times. Lyon subsequently grabbed fireplace tongs to attack him. Both men had to be restrained. This incident, choice material for ridicule and caricature, was illustrated by the political cartoonists of the period. Motions made to expel both from Congress failed when the required two-thirds majority vote was not achieved.

Another incident occurred in October 1798, when Lyon became the first victim to be indicted for treason under the Alien and Sedition Laws. He was accused of "scurrilous, scandalous, malicious, and defamatory language" in his criticism of President John Quincy Adams, published weeks before the law was passed. He was tried in the United States Federal Court in Rutland. Lyon defended himself, while simultaneously campaigning for reelection. Although he was convicted, fined \$1,000, and served four months in jail in Vergennes, he scored a victory for freedom of speech by being reelected to Congress by a majority of 500 votes. After his fine was paid in 1799 by Jeffersonian supporters, Lyon returned to Congress and cast the

decisive House of Representatives vote for Thomas Jefferson to become president!

His attention to politics and neglect of his business, however, finally resulted in financial ruin. Lyon sold his property and businesses and departed Vermont, first for Kentucky in 1801 and later for Arkansas in 1820. In both states, he was also elected to Congress.

Lyon, who died in 1822, no doubt would have been happy to learn that his fine under the Alien and Sedition Act was refunded to his heirs in 1840.

*He in a trice, struck Lyon, trice
Upon his head, enrag'd sir
Who seized the tongs to
ease his wrongs
And Griswold thus engag'd sir.
Congress Hall
Philadelphia, Feb.15,1798*



Resources

Adams, Andrew N., A History of the Town of Fair Have, Vermont.
Leonard & Phelps, Fair Haven. 1870.

Austin, Arleine, Matthew Lyon: New Man of the Democratic Revolution.
Pennsylvania University Press. Philadelphia, 1981.

Campbell, Tom W., Two Fighters and Two Fines: Sketches of the Lives of
Matthew Lyon and Andrew Jackson. Pioneer Publishing, Little Rock,
Arkansas. 1941.

Child, Hamilton, Gazetteer and Business Directory of Addison County, VT
for 1881-82. Journal Office, Syracuse, New York.

Goodwin, Dell and Dorcas, Chaffee, Perspectives '76. Regional Center for
Educational Training, Hanover, NH, 1975.

Murray, Eleanor, Mount Independence in Time of Peace, 1783-1960.
Vermont History, Volume XXXV, No.2, 1967.

McLaughlin, J. Fairfax, Matthew Lyon; The Hampden of Congress.
Wynkoop Hallenbeck Crawford, New York. 1900.

Orwell Historical Society, A History of the Town of Orwell, Vermont.
Orwell Historical Society, Orwell, 1900.

Reynolds, Thomas H., Mount Independence Under the Aegis of the
Vermont Board of Historic Sites. Vermont History, Volume XXXV, No.2.,
1967.

Rolando, Vic , 200 Years of Soot and Sweat. Vermont Archeological Society.
1992

Smith, H.P., History of Addison County, Vermont. D. Mason, Syracuse,
New York.

Vermont, State of, Journal and Proceedings of the State of Vermont. Vol,
III: 169.

Williams, Robert P., By the Bulls that Redeemed Me: The Odyssey of
Matthew Lyon. Exposition Press, New York. 1972.

Objectives:

- To practice voter registration.
- Learn the concept of gender-neutral

Target Ages:

Grades 3 - 8

Class Orientation:

Individual or pairs, or group

Time Needed:

40 minutes

Materials:

- Copy of Freeman's Oath
- Pencil

The Freeman's Oath

Introduction:

When Vermonters reach the age of 18 or when new Vermont residents who are American citizens wish to register to vote in political elections, they must make a sworn statement. This statement, the Freeman's Oath, now known as the Voter's Oath, has been a prerequisite to voting since 1793 (Vermont Constitution, Chapter II, Section 42 and Statutes 17 V.S.A. 2121). John Charter, the first settler of Orwell and Mount Independence, took the Freeman's Oath.

In 1995, the voters of Vermont endorsed changing the Constitution and passed an amendment which changed 9 words used 140 times in the state Constitution. One of them was freeman. As such, the title of the section for this oath now reads, "Qualifications of Freemen and Freewomen," including women who were not eligible to vote when it was drafted in 1793. Assistant Judge Althea Kroger, who served on the committee for these language changes, affirmed the constitutional amendments were made "to make sure the words are a reflection of our values and our ideals, as a state, as a people" (Gegger 1995). Vermont was the sixth state in the United States of America to institute changes to its Constitution to make it "gender-neutral".

Suggested Readings & Resources:

The Constitution of the State of Vermont

Douglas, James H. and Paul S. Gillies. A Book of Opinions. Office of the Secretary of State, Montpelier, VT, 1992.

Geggis, Anne. "Oath's Wording to Extend Freedom." Burlington Free Press, February 8, 1995.

The Vermont Constitution, Chapter II, Section 42 now states:

QUALIFICATIONS OF FREEMEN AND FREEWOMEN

42. [Voter's qualifications and oath]

Every person of the full age of eighteen years who is a citizen of the United States, having resided in this State for the period established by the General Assembly and who is of a quiet and peaceable behavior, and will take the following oath or affirmation, shall be entitled to all the privileges of a voter of this state:

You solemnly swear (or affirm) that whenever you give your vote or suffrage, touching any matter that concerns the State of Vermont, you will do it so as in your conscience you shall judge will most conduce to the best good of the same, as established by the Constitution, without fear or favor of any person.

The applicant also swears, under penalty of \$5,000 fine, or imprisonment for not more than one year, or both, that the statements in the application are true!

Activities:

- Conduct a mock voter registration in which each student must recite the Freeman's Oath. Then have each individual cast their ballot to determine if they wish to change the gender terms in the Declaration of Independence.
- Change the gender terms in the Declaration of Independence or another well-known document or speech.

Objective:

To involve students in a mock town meeting where they role play, gather and distribute information, and debate the issues.

Target Ages:

Grades 3 - 8

Class Orientation:

Class

Time Needed:

40 minutes

Materials:

- Paper
- Pencil, crayons, markers

Commission Proposes Power Plant in Orwell

Students Hold Special Town Meeting

Introduction:

If you have ever attended a town meeting, you have seen grassroots democracy in action. Here, ordinary people can voice their concern and inform others of their knowledge and opinions. Important business is conducted and townspeople reveal their serious commitment to carrying out their right to run their own local affairs. When Thomas Jefferson said, "I felt the ground shake under my feet at my first contact with New England town meeting" (Goodwin & Dorcas 1975), he clearly had experienced the highly explosive atmosphere which may erupt at a town meeting.

Imagine the strong opinions of individuals in the early 1970s when they debated the issues of the proposal to establish a generating nuclear power plant on the north side of the East Creek drainage on Mount Independence. The construction project included a 1,700 acre water impoundment area or cooling pond which would be created by a dam spanning East Creek. Behind the dam, all lands to the 180 foot contour (see U.S.G.S. map) would have been flooded. What was the threat to the archaeological resources? Is the fact that the Champlain Thrust fault line close by an issue? What was the economic benefit to the region?

Activity:

- Write a press release or radio announcement for the proposed effort to build a nuclear plant on Mount Independence.
- Schedule the date and time for a town meeting to discuss the issues.

Notes:

- Divide the class into two groups: citizens supporting the issue and those opposed.
- Assign roles within each group: Proponents can include the mayor, developer, representative of the electric company, unemployed individuals. Individuals voicing their concern can include an archaeologist, preservationist, geologist familiar with fault lines, and farmers. Other students can also take roles as journalists.
- Each team should prepare for the meeting. Older students can research local and national preservation and zoning laws.
- Each team can create slogans, logos, flyers, and/or posters to serve as symbols and information "propaganda." Alternatively, write letters to an editor voicing your opinion or create a town report.
- Stage a mock town meeting and debate the issues. Have individuals with assigned roles discuss resident's rights, resource protection, preservation issues, etc.
- **TRY TO DEVISE SOLUTIONS THAT WILL ACCOMMODATE ALL PARTIES!** For example, can the plant be moved to a different location to avoid disturbing known archaeological resources?

Objectives:

- To compare today's family with that of the 18th century
- To examine responsibilities of an 18th century family

Target Ages:

Grades 2-5

Class Orientation:

Whole Class

Time Needed:

15-30 minutes

Materials:

- Chores Handout (next page)

Whispered Echoes from the Mount:

Here I sit on Buttermilk Hill Who could blame me cry my fill?

*And every tear would turn a mill
Johnny has gone for a soldier*

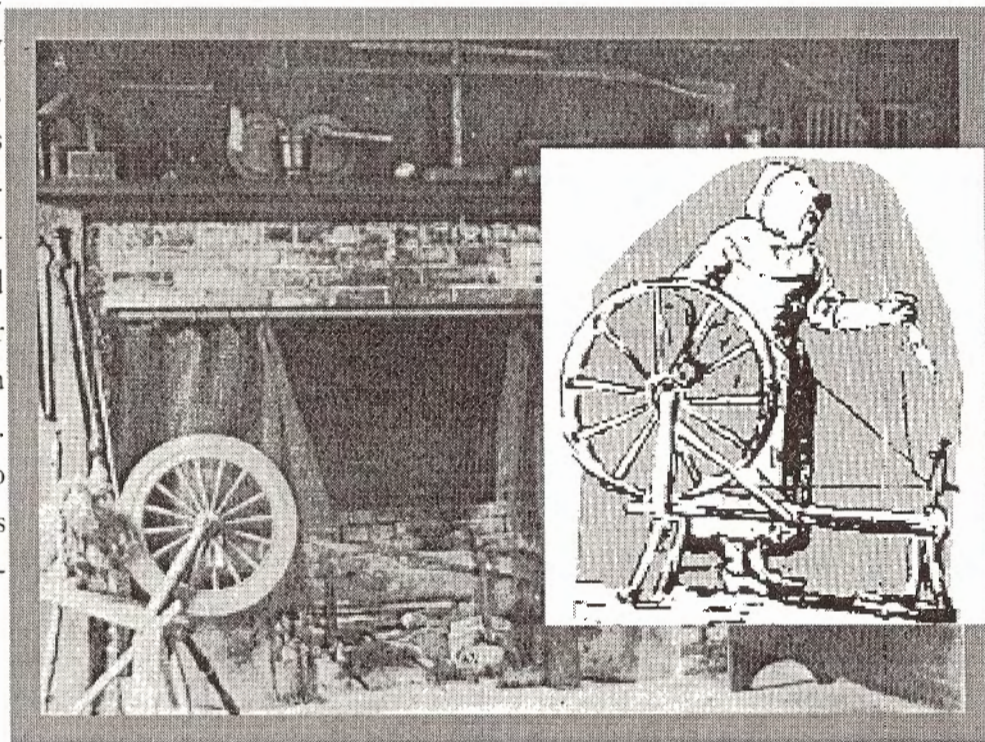
*I'd sell my cloak, I'd sell my reel
Likewise I'd sell my spinning wheel
To buy my love a sword of steel; Johnny
has gone for a soldier.*

Folk Song, 1700s

Household Chores

Introduction:

Families in rural colonial America were often large. They had to be; there was a lot of work to do! Remind students that 18th-century rural people didn't have the luxury of being able to dash to a store if something ran out or was needed. Girls and boys usually did the same light chores, close to the house, until they were about 10 or so. Then their jobs became rather specific with girls concentrating on hearth and home, while their brothers focused on field and barn. Following are two related activities about family members' responsibilities.



Activity

Think about This:

- What activities do members of your family engage in?
 - Which activities might your family not do but are still fairly common today?
- Read about John Charter in the American Chapter.
 - Decide which of the following household chores would have been done in 1777.
 - Who did them? Mr. Charter (Father), Mrs. Charter (Mother), 17-year-old son, 16-year-old daughter, Six-year-old twins.



Chores

- Gather eggs
- Go Fishing
- Return library books
- Knit socks
- Clean a gun
- Pluck turkey feathers
- Build a stone wall
- Bring in the newspaper
- Dip candles
- Dry herbs
- Show a horse
- Pump water from the well
- Make gun flints
- Tap maple trees
- Spin flax for cloth
- Feed Chickens
- Clean the barn
- Carry logs to the house
- Clean the bathtub
- Gather honey and wax from beehives

Objective:

To use self-reflection to imagine and build a monument

Time Needed:

Two class periods

Class Orientation:

Individual

Materials:

- Found Objects
- Sculpting Materials (Paper Mache, plaster of paris, etc.)

Activities at the Mount:

- Find the plaque erected by the Vermont Society of the Sons of the American Revolution. Read the inscription and answer the following questions.
- When did the Continental soldier begin to fortify Mount Independence?
- Who was the chief construction engineer?
- What is the name of the companion fortress located on the west shore of Lake Champlain?
- On what date was Mount Independence evacuated under the cover of darkness?
- What was the result of the 1776-7 American occupation of the Mount?
- Time permitting, hike to the other two monuments on the northern end of Mount Independence.

In Memory of Susan B. Student 2000-2090

Make Your Own Monument

Activity:

Design your own monument commemorating the history of Mount Independence. You might consider including some of the following: famous individuals who were associated with the Mount, the different nationalities and state origins of the soldiers and private individuals, the weather conditions the soldiers endured, the thrill of seeing Burgoyne's navy turn back towards the north, the hurried evacuation of the site. Consider designing your monument from a different point of view than the American success story.

Objective:

To teach students to record visually and to develop correspondence

Target Ages:

Grades 4-8

Class Orientation:

Whole class

Time Needed:

One class period

Materials:

- Card stock cut in 5 x 7" rectangles
- Painting, pencils or collage materials

While at the Mount:

Walk to where you can see Fort Ticonderoga. Create a postcard using this view.

Whispered Echoes from the Mount:

Ah, thought I, how often has a proud step and a gay heart passed thee, that now beats no more....

Abby May's diary entry on her tour of Lake Champlain

Revolutionary Warsites, July 1800

Postcards from the Mount

Activity:

- After students visit the Mount, have them create postcards detailing what they saw, which they can mail to friends or relatives, or even themselves! Of course they can be kept for a beautiful bulletin board display.

- Ask students to make Mount Independence postcards before they visit. Then compare the before and after efforts.
- Students can make postcards of their own town!

