The importance of geography in history and the future: Mount Tenjo

Over time the physical features of a locality can make it desirable or undesirable for use by people. Mount (Mt.) Tenjo (pronounced “Ten-ho”), on the island of Guam, is just such a location. Its use, because of its location, has been discussed in the highest offices of our government and yet it has always been uninhabited by civilians just as it is today.

Mt. Tenjo commands much of the high ground of central Guam. While Tenjo has no doubt been visited by the inhabitants of Guam from the earliest times, it appears it was only the United States (U.S) military that recognized the viability of using the mountain militarily, first in the 1920’s and again during the liberation of Guam in 1944.

Today developers, adventure tourism companies, and even a waste disposal company have their eyes on the mountain and the surrounding valleys as desirable location for their usage and future profits.
About the lesson

This lesson is based on the U.S. National Park Service’s War in the Pacific National Historical Park unit called “Mt. Tenjo”. The lesson was written by a resident, history buff, hiker and tree hugger on Guam. This lesson is one of a series that brings the important stories of historic places into the classroom.

Where it fits in the Curriculum

Topics: This lesson can be used in geography, world history, U.S. history, Contemporary Issue and Environmental science classes and general social studies courses as well as English for writing assignments.

Time period: Ancient/pre-contact Guam/ WW II and Contemporary times

NCSS Standards

Theme I: Culture

Standard A – Explore & describe similarities & differences in the way groups, societies & cultures address similar human needs & concerns.

Standard D – Compare ways in which people from different cultures think about & deal with their physical environment & social conditions.

Theme II: Time, Continuity, & Change

Standard B – Demonstrate an ability to use correctly vocabulary associated with time such as, past, present, future, & long ago: read & construct simple timelines; identify examples of change; & recognize examples of cause and effect relationships.

Standard C - Compare & contrast different stories or accounts about past events, people places, or situations, identifying how they contribute to our understanding of the past.

Standard D – Identify & use various sources for reconstructing the past, such as documents, letters, diaries, maps, textbooks, photos & other.

Standard E - Demonstrate an understanding that people in different times & places view the world differently.

Theme III: People, Places, & Environments

Standard B – Interpret, use & distinguish various representations of the earth, such as maps, globes & photographs.

Standard E – Locate & distinguish among varying land forms & geographical features, such as mountains, plateaus, islands & oceans.

Standard G - Describe how people create places that reflect ideas, personality, culture, & wants & needs as they design homes, playgrounds, classrooms & the like.

Standard H - Examine the interaction of human beings & their physical environment, use of land, building of cities, & ecosystem changes in selected locales & regions.
Standard K – Consider existing uses & proposes & evaluate alternative uses of resources & land in home, school, community, the region, & beyond.

**Common Core standards**

**6-8 Grade**

CCSS.ELA-Literacy.RH.6-8.1 - Cite specific textual evidence to support analysis of primary and secondary sources.

CCSS.ELA-Literacy.RH.6-8.2 - Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.

CCSS.ELA-Literacy.RH.6-8.4 - Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.

CCSS.ELA-Literacy.RH.6-8.5 - Describe how a text presents information (e.g., sequentially, comparatively, causally).

CCSS.ELA-Literacy.RH.6-8.6 - Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts).

CCSS.ELA-Literacy.RH.6-8.7 - Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

CCSS.ELA-Literacy.RH.6-8.8 - Distinguish among fact, opinion, and reasoned judgment in a text.

CCSS.ELA-Literacy.RH.6-8.9 - Analyze the relationship between a primary and secondary source on the same topic

**9 – 10 Grade**

CCSS.ELA-Literacy.RH.9-10.1 - Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information.

CCSS.ELA-Literacy.RH.9-10.2 - Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text

CCSS.ELA-Literacy.RH.9-10.4 - Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science.

CCSS.ELA-Literacy.RH.9-10.5 - Analyze how a text uses structure to emphasize key points or advance an explanation or analysis

CCSS.ELA-Literacy.RH.9-10.9 - Compare and contrast treatments of the same topic in several primary and secondary sources

**11-12 Grade**

CCSS.ELA-Literacy.RH.11-12.1 - Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole.
CCSS.ELA-Literacy.RH.11-12.2 - Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

CCSS.ELA-Literacy.RH.11-12.3 - Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.

CCSS.ELA-Literacy.RH.11-12.4 - Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).

CCSS.ELA-Literacy.RH.11-12.7 - Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, as well as in words) in order to address a question or solve a problem.

CCSS.ELA-Literacy.RH.11-12.8 - Evaluate an author's premises, claims, and evidence by corroborating or challenging them with other information.

CCSS.ELA-Literacy.RH.11-12.9 - Integrate information from diverse sources, both primary and secondary, into a coherent understanding of an idea or event, noting discrepancies among sources.

**Objectives for students**

1) To learn how to interpret a topographical map and draw conclusions about a place based upon a map.

2) To be able to understand and explain how a location’s importance changes over time.

3) Student will be able to analyze and interpret visual materials, evaluate readings, and analyze a topographic map to better understand the importance of place and its location in effecting history.

4) To develop a land use solution for the Mount Tenjo area that will best serve the needs of the community while protecting the natural environment.

**Materials for students**

1) Atlas

2) Colored pencils

3) Access to a computer and internet

4) Smart board or projection screen for displaying pictures

5) Print outs of the Guam topographical map and readings
Visiting the site

The War in the Pacific National Historical Park is comprised of the T. Stell Newman Visitor Center and seven non-contiguous National Park Service sites located throughout Guam. For more information on how to reach the Mt. Chachao/Mt. Tenjo Unit call the visitor center, which is open daily from 9:00am to 4:30pm, at (671) 333-4050.

Teaching Activities

Getting Started

Inquiry Question

(Courtesy of the National Park Service)

1) Examine this photo closely. What can you deduce from your examination?
   a. Time period, reason for photo being taken, place and location, etc.
   b. Physical environment: Soil, plants, ocean, climate, etc.
2) A photo is a representation of something at a particular time, literally a “snapshot”. One minute before and one minute after this picture was taken - the subject of the picture was different. Sometimes what you do not see in the picture is as important as what you do see; describe not only what you see, but what you do not see in this picture. How does this help you to interpret the picture and the event?
3) Hypothesize why the people in this picture are doing what they are doing in the location they are doing it? Why do you believe this?
4) If you could be any of the people in this picture, who would you be and why?
Setting the stage

Have you ever hiked through the woods, fished from a river bank, sat on a rock somewhere remote, or looked out from a cliff in amazement at the world and wondered if you were the first person to ever to do so from that exact spot? However, if you are taking the easiest track through a forest, fishing in a spot that offers the best chance of catching a fish, sitting on a rock that is just the right height or said, “I want to see what this place looks like from up there,” chances are many people before you and like you found the same place desirable for the similar reasons and used them like you. If it is any consolation, those people before probably imagined themselves being “the first” also...but they probably weren’t.

While there are many factors that affect history, location and place are two of the most important that decide and tell history. And as you can assume from the above paragraph, a location often has multiple stories to tell of events or how it was used through history. Mount Tenjo located in central Guam with commanding views of Guatali Valley, Apra Harbor and Orote Peninsula is a place that has seen its share of history over time and has many stories to tell.

During the liberation of Guam by the U.S. it was used as a defensive position by elements of the Army’s 77th Division and members of the Marine Corps 3d Marine Division against Japanese counterattacks. In the 1920s, the Marines emplaced large caliber rifles (cannons) on its peak to protect Apra Harbor and the Marine barracks on Orote Point. Surprisingly there is little evidence of the Japanese, the Spanish or the Chamorro doing little more than, “looking off the cliff in amazement at the world” below.

While a portion of the area is protected as the National Park Service’s War in the Pacific National Historical Park’s Mt. Tenjo Unit today, developers, adventure tourism companies and a waste disposal company all have their eyes on the mountain and the surrounding valleys as a desirable location for their gain. Only time will tell what will become of the area. For you, as a future steward of the world and protector of our history, there is an opportunity. A visit to the site will offer you a new prospective on Guam and WWII history. You can also look off the peak of Mount Tenjo "in amazement” of the world below or just take that week’s most unique selfie!!

*You will need to understand the below vocabulary to complete and better understand this lesson*

<table>
<thead>
<tr>
<th>Vocabulary</th>
<th>9) Tactics</th>
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</thead>
<tbody>
<tr>
<td>1) Relative location</td>
<td>10) Gun Battery</td>
</tr>
<tr>
<td>2) Absolute location</td>
<td>11) Garrison(ed)</td>
</tr>
<tr>
<td>3) Place (characteristics of)</td>
<td>12) Redoubt</td>
</tr>
<tr>
<td>4) Contour (map)</td>
<td>13) Field of Fire</td>
</tr>
<tr>
<td>5) Topographical map; topography</td>
<td>14) Draw/Gully (the physical feature)</td>
</tr>
<tr>
<td>6) Contour interval</td>
<td>15) Pre-contact Guam</td>
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<tr>
<td>7) Relief (geography)</td>
<td>16) Pummel</td>
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<tr>
<td>8) Fox Hole</td>
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Locating the site

Map 1: Topographical map of Guam

(Courtesy of a co-worker 15 years ago but I can't remember who :)

B14
Tasks for Map 1

* Contour maps are used to show elevation change and to show areas that are at the same elevation above or below sea level.

** You need to find political, physical and historical Guam comparison maps to complete the task below

1) Draw in a key with contour interval noted; color codes (sea level to 250 feet is represented by the color green); scale (Guam is approximately 30 miles long at its longest point); symbols for Spanish era forts, 20th century towns and Guam’s mountain peaks

2) Color and Label Pacific Ocean, Philippine Sea, Apra Harbor, Orote Peninsula, Mount Tenjo, Guatali Valley, Sumay, Umatac, Agana, Agat & Asan beach landing sites, Place your symbol for Spanish era forts in the appropriate locations

3) The US Tenjo gun battery was located near the peak of Mount Tenjo facing southwest; Compare and contrast its location with that of the Spanish forts.
   i. Who or what did the Spanish fear? What about the US?
   ii. What do the location of the battery and forts tell us about the technology of the time periods?
   iii. What hardships do you imagine each location presented to the men who garrisoned the different fortifications
   iv. Which location would you rather be garrisoned and why?
   v. Imagine you are have to place a fortification somewhere on Guam to protect the area from Agana to Umatac where would you place your battery and why?

4) Why would a contour be useful to a soldier, hiker or to rescue personnel?

Determining the Facts

Reading 1: E. Chachao - Mt. Tenjo Unit & capture of by US forces during the Liberation of Guam in July 1944

The Mt. Chachao (1,042 feet) - Mt. Alutom (1,074 feet) - Mt. Tenjo (1,028 feet) complex was the highest terrain in Guam that the American forces captured in 1944. Early in the 20th century, the U.S. Navy established a three-gun battery on Mt. Tenjo which commanded Apra Harbor and Piti Navy Yard. These weapons were removed well before World War II Nothing remains of the battery commander's station or the underground magazine. A trench on the east side of the peak is probably a portion of a longer trench along the ridge constructed by the navy. The site of the gun emplacements may be identified.

On July 28, 1944, both the 3d Marine Division and the 77th infantry Division began a drive on the mountain complex. From the southwest, a company of the 307th Infantry Regiment reached the peak of Mount Tenjo at 8:15 a.m., opposed only by occasional sniper fire. It was soon replaced by a battalion of the same regiment which spread out over the slopes of the mountain.
From the north, a combat team composed of both marines and soldiers, accompanied by tanks, approached the complex from the Fonte area. A battalion of the 9th U.S. Marines from this unit captured Mt. Chachao, wiping out the company of Japanese that defended it. Seeing the army troops already on Mount Tenjo, the Marines advanced along the ridge on a narrow road toward the mountain, erasing Japanese machine gun nests along the way. The soldiers came to meet them. There, on the ridge, the two divisions met, one week after the initial landings on Guam.

For, the first time since W-Day, U.S. forces found themselves in a satisfactory situation. The Final Beachhead Line had been reached. Americans had control of central Guam, and now had excellent observation of the northern part of the island to where the Japanese were retreating. Phase 1 of the liberation of Guam was completed

1) Considering that the Japanese military fortified the coast of Guam with pill boxes and heavy guns, why do you believe Mt Tenjo was so lightly defended comparatively? What evidence from the reading indicates this?

2) If you were a commander of US forces, for what reasons would you wish to control the Mt. Tenjo area?

3) Why did the US consider the capture of Mt. Tenjo the end of Phase 1 of the liberation of Guam?

4) Do you believe it was known before the battle that the capture of Mt. Tenjo would be the end of phase 1 or was it decided after the fighting started? Explain your belief.

Reading from War in the Pacific resource study site @
http://www.nps.gov/history/history/online_books/wapa/hrse.htm
“E. Chachao-Mt. Tenjo Unit”

**Determining the Facts**

*Once the US defeated and removed the Spanish from governing Guam it was left up to the US Navy to plan and build the defenses of Guam. While coastal batteries where strategically placed to protect the harbor and military barracks at Sumay, it was decided that there was a need for a stronghold that could “hold the island until the “fleet arrived” (Oalkey-Farley 2014).*

**Reading 2: Defending Guam during the naval period**

Mount Tenjo would allow for large guns that would deny the harbor to an enemy while providing defense against landings anywhere feasible on the island. An enemy would first be denied access to the island; if they made landfall, the guns of the Mount Tenjo Redoubt would pummel them as they crossed open land toward Apra Harbor and finally – when the men of the “redoubt” could hold off the enemy any longer and had sacrificed their lives – the remaining defenders would hold Orote Peninsula and deny use of the harbor to the enemy as long as possible. Ellis noted two distinct items in his report: “A copy of the plan (Guam Board) was forwarded to the Navy Department, but as far as the reconnaissance officer knows, it has never been approved, sufficient funds have never been provided for its execution, nor has any plan been substituted for it” and “the best site for a stronghold is Mount Tenjo. While not an ideal position by any means it comes nearer to fulfilling the requirements than any other” (Ellis 1915).
Reporting on the current challenges faced by Marines on the island, Lieutenant Colonel Giles Bishop Jr., mentioned:

“A few years ago (1914) Mount Tenjo was suggested as the final stronghold, and extensive work was done towards that end but in the last few years this project was abandoned, and the time, labor, and material expended practically lost, furthermore to occupy Tenjo at the present time is out of the question as there is no water supply available” (Bishop Jr., Discussion of and proposed defense of the island of Guam against enemy attack 1920).

Bishop, and a considerable portion of his officers, did study the island in depth (resulting in thirty-three overly detailed and occasionally rambling single spaced pages of typed observations). They considered two places for the stronghold – Agat Spring and Mount Tenjo. His report on Mount Tenjo (five and half pages long) was exceptional.

Bishop and all of the officers of the command went up to Mount Tenjo. Their assessment was that the position was untenable unless water could be stored within the stronghold itself. Options were to make a concrete holding tank, to dam a few low areas, or to put multiple dams along a stream northeast of the guns where Bishop had seen freshwater shrimp (thus proving the stream was wet most of the year). Bishop was convinced that Tenjo was the best location and noted that the road, began in 1914, was actually not too bad since many of the areas needing fill and cuts into the sides of steep hills had been done already. With water, it was a position that satisfied the need for a protracted defense.

Mount Tenjo did not have a “safe line of retreat or withdrawal” though Bishop sees this as not being a problem since “there is to be no withdraw, hence no provision for it is contemplated – it is a point of "Last Stand" (Bishop Jr., Discussion of and proposed defense of the island of Guam against enemy attack 1920). He details the topography and notes that is unassailable from the west or south and though it could be fired upon from a few locations from the east, ground troops would be hard pressed to scale the heights on that side. The northern route, following the road to the point as the Marines did to enter the stronghold, could be held by trenches and large scale artillery barrages from within the stronghold – as long as food and water held out...Mount Tenjo’s Marines could survive within their entrenchments. He then notes the disadvantages – only canned food as there would be no fuel supply, water was an issue, storage, “there would be no real protection from aerial bombardment” and mortars would prove dangerous (Ibid.)

1) Why do you think the navy felt it needed a stronghold on Mt. Tenjo?

2) What are the advantages of the Mt. Tenjo Redoubt mentioned in the passage?

3) After reading this passage, why do you believe the Spanish or Japanese never heavily fortified Mt. Tenjo?

4) Conclude whether or not you believe it was a good investment of American tax dollars to build the Tenjo Redoubt.

Read 2 is an excerpt from James Oelke-Farley of the War in the Pacific National Historical Park. Under the Gun
Determining the facts 3 (multimedia): Guam Resource Recovery Partners details pitch on Guatali landfill

Not only does the Tenjo Redoubt lookout over Apra Harbor and Orote Peninsula but also the Guatali Valley. On a rock out cropping there is evidence of people through time visiting the site just to take in the view. Today there is pressure to put the area to use other than for its scenery. Below is a link that will take you to an explanation of one proposal for the land. Please view it and answer the questions at below.

http://www.youtube.com/watch?v=rlEis6jQkQw

1) What is proposed for Gautali Valley?

2) What good does the man in the video claim his project will do for Guam?

3) What problems do you foresee if the man’s project is completed?

4) Do you believe this is good for Guam or not? Why?

5) What other proposal can you come up with for Gautali Valley?
Visual Evidence

Photo 1: Jungle Roads

(Courtesy of the National Park Service)

1) This road was cut over a 100 years ago. What tools do you believe they used to cut it? If you had to cut a similar road today, what tools would you use?

2) Imagine having to haul equipment and heavy guns over these jungle roads. What problems would you have had to face and how would you have overcome them?

3) How does this road compare to the Guam roads today? What are the differences? What about the similarities?
Visual Evidence

Photo 2 & 3: Fox Holes & Field of fire

(Courtesy of James Oelke-Farley)

Photo 2 is a defensive fox hole dug by a US Marine during the liberation battle of Guam.

Photo 3 is the field of fire from the fox holes dug on Mt. Tenjo.

1) Sometimes Mother Nature can hide history from us or help us to discover it. What evidence from the photo would make finding this fox hole difficult to find if you were looking for battle evidence at an earlier time? What event aided in revealing this fox hole?
2) Concerning photo 2 – study it and explain what you can tell us about the man that dug it?

3) Why do you believe the fox hole was set up to look down this draw on the side of the mountain?

4) If you were a Japanese soldier attacking this position, are there any advantages you can see in photo 2 or 3 that you could use to help you succeed in your attack? What are they?

Visual Evidence

Photo 4 & 5: Tenjo then & now

(Courtesy of the National Park Service)

1) Examine pictures 4 and 5. What activity appears to taking place in the pictures?

2) Create a ‘T’ chart that compares and contrasts the different activities.

3) These picture are taken roughly 90 years apart. What is different in regards to the landscape? Please list any consequences you can think of for Guam and the animal life on land and in the sea regarding the way the land has been used.
Visual Evidence

Photos 6 & 7: In the footsteps of others

(Courtesy of the author)

* Photos 6 and 7 (south side of Mt. Tenjo with the Guatali Valley below) are taken very near to each other which are themselves very near to the Tenjo Redoubt position.
1) What would make the hikers in picture 6 feel like they were the first people to this spot? What evidence is there that they are not?

2) Photo 6- describe human’s impact on the land in the photo.

3) Photo 7- Why do you believe people write their names in rocks, trees, on walls?

4) Pretend you are the hikers in photo 6- write a paragraph explaining your feelings. Then pretend you are Simon or Frank craving your names in the rock in 1803. Write a paragraph explaining your feelings. Lastly, you are a young pre-contact Chamorro boy or girl. You have just made the journey to the top of Tenjo. What do you see? Feel? Why did you travel up to Tenjo? Share with the class.

**Putting it all together**

The following activities will help the students understand the significance of place & location in relation to influencing history. They will further understand the importance of the War in the Pacific National Historical Park’s Mt. Chachao/Mt. Tenjo Unit in the history of the US military on Guam as well as understanding the importance of stewardship of our natural surroundings.

1) Plan a field trip to the Mt. Chachao/Tenjo Unit. Have students take notes and pictures of what they experience (don’t forget to write about your feelings) as they walk out to the cliff line. Try to find fox holes and have the kids imagine they are 18 year US Marines in 1944 on Tenjo bedding down for the night. Once back at school and doing further research, have the kids write a paper on what they, the Marine bedding down for the night, had gone through, what lie ahead in the coming days and what they thought about as they drifted off to sleep.

2) Have students check their own history book to see if the Liberation of Guam is mentioned. They will probably find that very little is mentioned. Hold a class discussion about why they believe this is the case. In groups, students will then research the Battle and liberation of Guam more fully and examine the Pacific Campaign of WW II to better understand Guam’s importance. Groups will present their findings in any form they wish.

3) Have students choose another historic site on Guam and research the site. Create a presentation on the site to present to the class.

4) Conduct research on the different issues concerning Mt. Tenjo, Guatali Valley or other undeveloped sites on Guam and discuss possible future land usage. Ideas: land owner rights, land use-development, four wheel drive use, erosion, ancient burial grows, invasive plants and animals, Eco tourism, hunting, arson, land fill...) Have students present their finding in any media they choose. As a class brainstorm ways to deal with this issue. Finally have the class pen a letter to the editor about their findings and ideas.
Supplementary Resources

1) National Park Service  [www.nps.gov/wapa](http://www.nps.gov/wapa)

Detailed resources concerning WWII on Guam showcasing photos and multimedia. Provides links to explanation of events leading to WWII and battles in the Pacific theater.

2) Pacific Historical Parks  [www.pacifichistoricalparks.org](http://www.pacifichistoricalparks.org)

Supports the National Park Service in education, preservation, development, and interpretation of WWII in the Pacific.

3) Guam Preservation Trust  [www.guampreservationtrust.org](http://www.guampreservationtrust.org)

Dedicated to preserving Guam’s historic sites and culture. Site contains photos and other resources concerning Guam’s history and culture.

4) Guampedia Foundation, Inc.  [www.guampedia.com](http://www.guampedia.com)

Guam’s online encyclopedia covering history, culture as well as contemporary issues concerning Guam.

5) Critical Past  [www.criticalpast.com](http://www.criticalpast.com)

Vintage stock footage and millions of stock photo images comprising one of the world's largest royalty-free archival footage collections

6) ibiblio  [www.ibiblio.com](http://www.ibiblio.com)

Home to one of the largest free information databases online, ibiblio.org has something for everyone. Visitors can browse through our eclectic collections catalog and contributors can host and share their unique collections with millions worldwide