Lesson Plan Grade Levels: Grades 11-12

Introduction: Mini DBQ on William C. Gorgas and his sanitation efforts when building the Panama Canal and the role the government played in slowing down the process in the beginning.

Guiding Questions: Did the government slow down the sanitation process in the beginning? Did the government’s actions hamper Gorgas’ desire to eradicate malaria in Panama? How did most people in the U.S. feel about work being done in the Panama Canal originally and how did this change at the end of the work?

Learning Objectives: Students will be able to analyze the documents provided and create a well developed essay stating whether or not the government hampered the sanitation efforts of Gorgas in the beginning and how public opinion changed about the project once it was completed.

State COS objectives:
11.3-- Explain the impact of American imperialism, including the geographic changes due to the Open Door Policy and the Roosevelt Corollary, on the foreign policy of the United States between Reconstruction and World War I.
12.7-- Trace the development and impact of the media on the political process and public opinion in the United States.
12.13-- Explain the foreign policy of the United States and national security interests as they pertain to the role of the United States in the world community.

Lesson Preparation Instructions: PBS has a website that has videos, timelines, photos, and other documents that could enhance the DBQ to make it a longer unit and give you additional background information if needed. http://www.pbs.org/wgbh/amERICANexperience/fILMS/panama/player/

Lesson Activities:

Activities: Introduce the DBQ question and then complete the hook activity. Allow the students to do this in a small group and then share their evidence with the class. Once that is done, discuss as a class what the political cartoon is about and why the government wanted to get involved in Panama in the first place. Make sure you touch on imperialism and what that means. After the hook, read the background essay as a class stopping to discuss any key points you think might be needed. You could create guiding questions to go along with the essay to help keep the students focused on the task. At the end of the essay, you will again emphasize the question at hand and tell the kids that they will now examine documents that will answer this question. The next activity would be to analyze the documents. Group work would be great for this. Have each group look at the documents and answer the guiding questions as well as fill out the document analysis worksheets (provided at the end of packet). They are to keep in mind key points that they think will answer the DBQ question. After this is done, have different groups share their answers. Once the documents are
analyzed, the students will write an essay answering the question using information they got from the documents and activities in the lessons. Depending on any additional information you give, the essay could be a shorter three paragraph essay or a more developed five paragraph essay, but no matter the length, the students should all have a thesis with three reasons for their argument and document facts from the information given to them. If your students are not used to writing essays, then you will need to take time to show them how to set up their essay, document facts, and come up with a good thesis. You also might want them to peer edit their papers to help improve their essays before they turn them in.

Extending the lesson: Visit the Gorgas House. Extended activity included at the end of the DBQ.

Time Required: 2-3 class periods on block and 3-5 on traditional.

Subject Areas: U.S. History—Imperialism, William Gorgas, Yellow Fever Government—Public Opinion, Impact of Media, Foreign Policy

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Panama Canal Sanitation: Government versus Mosquito

Mini DBQ Created by:
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Documents courtesy of W.S. Hoole Library Special Collections, University of Alabama
Guide to the William Crawford Gorgas Papers
http://acumen.lib.ua.edu/u0003_0000581
Hook Exercise: Visual Discovery—Have the students in groups, analyze the following political cartoon and come up with 3 pieces of evidence in the cartoon that tells them what this cartoon might be about. After the kids show their evidence, discuss with the class what is going on in the cartoon and what the mini DBQ is about.

Library of Congress
"My, my, such possibilities"
Background Essay:

The Panama Canal is a 51 mi ship canal in Panama that connects the Atlantic Ocean to the Pacific Ocean. Work on the canal, which began in 1880, was completed in 1914, making it no longer necessary for ships to sail the lengthy Cape Horn route around the southernmost tip of South America and to navigate the dangerous waters of the Strait of Magellan. One of the largest and most difficult engineering projects ever undertaken, the Panama Canal shortcut made it possible for ships to travel between the Atlantic and Pacific Oceans in half the time previously required. Encouragement for the idea of a canal was provided by the French success in building the Suez Canal.

French construction, 1881–1889

In 1880, the first attempt to construct a sea-level canal began with substantial financing and support from Paris. The French effort went bankrupt after reportedly spending US$287,000,000, and was largely abandoned by 1890. The Suez Canal was built in a much more benign environment but still took 10 years to complete its 102-mile length, about twice that of the Panama Canal. The cost and difficulty of building a canal in the rain-soaked tropics through unstable mountains exceeded expectations. Health risks posed to workers in the mosquito-infested Panamanian jungle, principally malaria and yellow fever, cost thousands of lives and caused unanticipated delays. Accidents and disease cost about 22,000 workers their lives. These high death rates made it very difficult to maintain an experienced workforce.

A second French company was created in 1894 to finish the construction. A minimal workforce of a few thousand people was employed primarily to comply with the terms of the Colombian Panama Canal concession, to run the Panama Railroad, and to maintain the existing excavation and equipment in salable condition. The company sought a buyer, with an asking price of US$109,000,000.

1890–1904

At this time, various parties in the United States were interested in establishing a canal across the isthmus. Eventually, in June 1902, the U.S. Senate voted in favor of pursuing the Panama Canal. In 1903, Panama became an independent country and they U.S. signed a treaty with them granting the U.S. rights to build and manage the canal for as long as they wanted.

In 1904, the United States, under President Theodore Roosevelt, bought the French equipment and excavations for US$40 million, paid the new country of Panama US$10 million plus more each year, and began work on the Panama Canal on May 4, 1904.
Colonel William C. Gorgas, formerly Chief Sanitation Officer in Havana under Dr. Walter Reed, was appointed Chief Sanitation Officer of the Canal construction project in 1904. Dr. Carlos Finlay had postulated in 1881 that mosquitoes may be key to transmitting the diseases of yellow fever and malaria. Implementing the recommendations of the doctors, they built proper housing with screens for canal workers and oversaw investment in extensive sanitation projects including extensive city water systems and mosquito-abatement programs to minimize the spread of deadly mosquito-spread diseases—particularly malaria and yellow fever.

Even with all this effort, about 5,600 workers died of disease and accidents during the U.S. construction phase of the canal, but after two years of extensive sanitation and mosquito abatement work involving thousands of workers and millions of dollars the mosquito spread diseases were nearly eliminated.

President Roosevelt in 1907 appointed U.S. Army Colonel George Washington Goethals of the U.S. Army Corps of Engineers as Chief Engineer on the Panama Canal construction project. Colonel Goethals was a strong United States Military Academy trained leader and civil engineer, experienced with dams, locks and canals.

The building of the canal was completed in 1914, 401 years after Panama was first crossed by Vasco Núñez de Balboa. In this mini DBQ, you will focus on William Gorgas’ sanitation efforts in the building of the Panama Canal and the role government played in the beginning.
Doc. A—Advertisement, Panama Canal, 1905
1. Why would this document be considered propaganda?
2. What do you think the author is trying to say about Goethals?
3. Does this support the work being done on the canal or go against it? Why or why not?
1. What does Gorgas say are the two main reasons why work in Panama sanitation is going slow?

We have done a considerable amount of work along the line in the way of superficial ditching, but here our utility has been very much decreased by the constant want of supplies in almost every direction.

The two greatest causes of delay in the work, I think, have been slowness in filling requisitions and slowness in construction. I have shown you many instances of these from our files:—Requisitions made in August and supplies not yet received; repairs asked for for the hospital, in July, and not yet finished; and these instances could be duplicated all through the work, in every direction. I cannot speak of any particular deficiency in the personnel, with the exception of the two officers I have already mentioned to you.

I think it a mistake to offer such small salaries as has been done everywhere. We give a man no more (and frequently less)

1. Did the U.S. give Gorgas everything he needed at first?
2. How did the government stall Gorgas?
3. Who did the author say would win the first skirmish as a result of the government’s actions?
1. What does this article say about support given to Gorgas by the mayor in Panama City?
2. According to the article, did Gorgas have the full support of the Panamanians?
1. What does Mañanaton mean?
2. Why do you think they referred to it as that?
3. What was going on with malaria deaths in the Southern U.S. according to the author?
1. Where were the infected mosquitoes living in Panama?
2. What did they decide had to be done to the park?
3. Why did they decide to take care of the park themselves?
4. Was clearing the park successful?
1. Because the death rate from malaria in Panama went down, what did people start to say about the death rate in the U.S.?
2. How did efforts in Panama affect other economic adventures such as the railroad in Brazil?
3. What is the attitude toward the policy of sanitation and health in the U.S. now?

and the press took up the cry, "Why should we be sick? Why should we have so many deaths and so much illness and suffering when at that death hole in Panama the sickness rate is lower than ours?" Consequently, it was not long until the sick rate in State after State began to drop. There were fewer deaths and we began to understand the real value of public health activities properly conducted.

Attempts had been made by American financial interests to build a railroad in Brazil. They had failed three times, one after another, because they could not keep the working forces free from sickness. With the knowledge gained at Panama, this railroad was installed in record time.

You can now understand how the public demand and support for the rebirth of our State and city health departments came into existence. Possibly many of the graduates of this school, as well as those present here today, may owe their very existence to this reduction of sickness and the lessons taught by Doctor Gorgas. Let us fix firmly in our minds that it is solely due to Gorgas' work that many of our parents, and consequently even many of the contestants for the Gorgas Essay Prize have the good fortune to be alive today.

When Sir Ronald Ross (the man who discovered the mode of transmission of malaria) visited the Isthmus twenty-five years ago, he said to me: "The trouble with the British people is, it takes us ten years to get a new idea." It has taken Americans thirty-five years to begin to get the idea, while foreigners have adopted and carried out the methods that Gorgas originated on the Isthmus we here in the south.
Doc. H—Writing, Concerning Yellow Fever and Sanitation in Panama, Circa 1905, W.C. Gorgas

1. What did Gorgas finally have to do in order to get the supplies that he needed?
2. Was it successful?

Dr. J. C. Ferry went to the Isthmus about the same time, arriving February 8, 1904, and was stationed at Colon. On the organization of the Department of Sanitation he was appointed Chief Quarantine Officer with headquarters at Panama.

Affairs proceeded slowly until fall, at which time the improbability of obtaining much needed supplies through the proper channels for his department forced Doctor Gorgas to go to Washington in order to take up with the higher authorities the supply question, and to urge greater cooperation. Some slight success attended his efforts, and on the completion of

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http://acumen.lib.ua.edu/u0003_0000581_0002599#item%3Du0003_0000581_0002599_0003%3B
Extended Activity:
Visit Gorgas House at the University of Alabama. Have the students focus on the Gorgas family and how growing up in the Gorgas family probably influenced William Crawford Gorgas and the choices he made in life such as joining the military, being well travelled, and his medical career. After the trip, have them pretend that they are William Crawford Gorgas and in Panama helping end malaria. They are to write a letter home to his parents thanking them for making him who he is today and why. They are to include facts about William Crawford Gorgas’ life and the life of his family.
Document Analysis Worksheet

1. What is the document letter?

2. What type of document is it? (i.e. letter, report, newspaper, magazine, book)

3. Is it a primary or secondary source?

4. What is the date on the document, if it has one?

5. Who wrote the document?

6. Do you think the author had any bias?

7. Write an important quote or describe an important image from the document.