

William C. Gorgas: A Mini DBQ

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:
Ronda Gamble—Tuscaloosa County Schools
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 work force.

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.



Construction of locks on the Panama Canal, 1913

U.S. Panama Canal construction, 1904–1914

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.

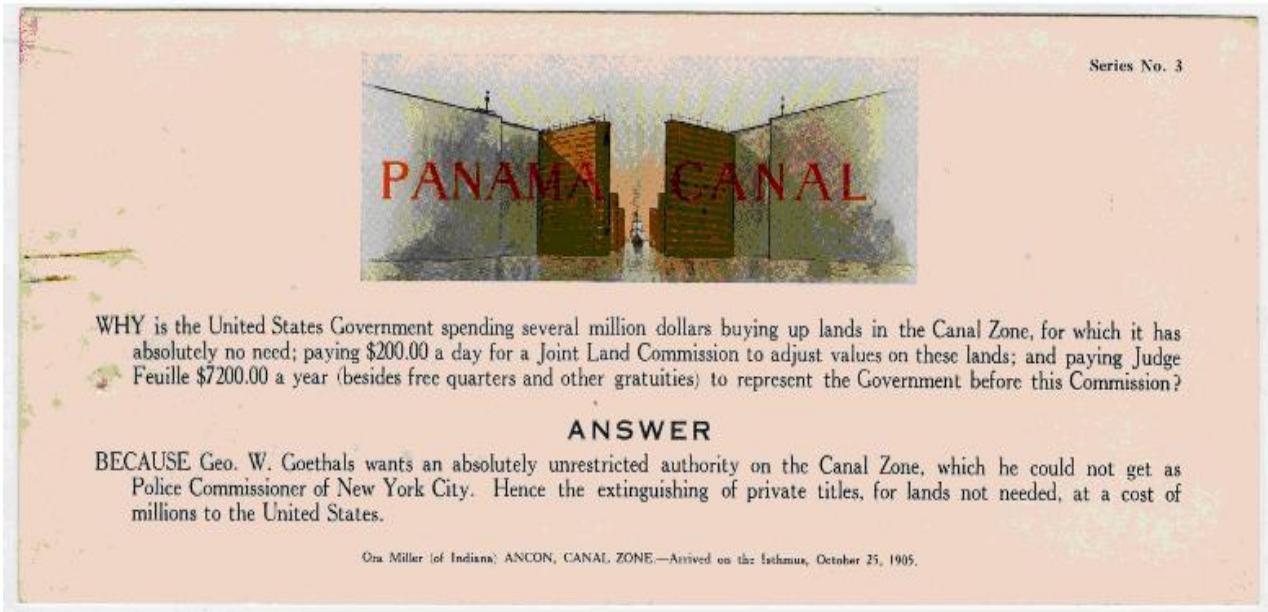


President Roosevelt in 1907 appointed U.S. Army Colonel George Washington Goethals of the U.S. Army Corps of Engineers as Chief Engineer on the Panama Canal construction project. Colonel Goethals was a strong United States Military Academy trained leader and civil engineer, experienced with dams, locks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



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Doc. B—The Sanitation Situation in Panama, Page 4, 1904, by W.C. Gorgas

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)

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Doc. C—Achievements of William Crawford Gorgas, 1938, by Joseph A. Le Prince

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?

CRUSHING DEFEAT WITH A SMILE AND COME BACK BETTER prepared to move in
the next round.

He was, so to speak, ordered to the battle front without ammunition for his fighters. Like a good soldier he went, and his smile continued even when he foresaw disaster immediately ahead. It's hard to believe --but you can see it all in print. There is an especially good article about it in the Journal of the American Medical Association, issue of March 11, 1905. Gorgas was told that when he got to Panama, he was to look things over, request what was needed and that it would be sent to him on the next boat without any delay whatsoever. He replied that he had already been to Panama, had studied the situation carefully, seen and listed what supplies were immediately necessary and had already submitted that list. Again he urgently requested that the items listed be purchased and shipped by the same boat. He was told curtly that this request would not be honored, directed to proceed to Panama, and to do as he was told. Thus he was compelled to obey those orders.

When Gorgas arrived in Panama, he immediately sent a copy of the list back to Washington--and nothing happened. That list apparently glued itself to an invisible spot somewhere in Washington.

"DELAY, LINGER & WAIT, NO HURRY"

We waited expectantly, with the patience of angels, for that shipment, which was, we imagine, blown or conveyed somehow into a file possibly labeled "Delay, Linger & Wait, No Hurry."

As time went on, those of us on the firing line knew in advance that the first skirmish engagement would be won by our winged enemy. We

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Doc. D—Achievements of William Crawford Gorgas, 1938, by Joseph A. Le Prince

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?

of request. The immediate delivery in plain English consisted of months of delay.

"FULL SUPPORT?"

What a banquet feast those infected yellow fever mosquitoes had! The Mayor of the City of Panama said to me: "Young man, you and your ordinances, don't you know the meaning of our local politics yet? Are you not aware that if I enforce the sanitary regulations against production of yellow fever mosquitoes, I'll lose the next election—and are you unaware I've held office through revolution after revolution? Are you unable to think of future elections? I will politely receive your requests but I absolutely will not enforce any new ordinances, laws or regulations to help you get rid of yellow fever, if such action could or might interfere with future votes." That is what some writers did not know when they stated that Gorgas had the full support of all necessary legal power behind him. He had none whatsoever in Panamanian territory where yellow fever was at its worst and where the higher powers concentrated the American non-immunes.

At this time the yellow fever patients and suspects were put in the yellow fever ward located about two hundred feet from the American mess hall at Ancon. The only available protection from an explosive outbreak of yellow fever was a thin, flimsy, cotton mosquito-bar, easy to tear, over each window. The sanitary engineer kept his eyes on that bar night and day and managed to engineer success out of it, with God's help and good luck.

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Doc. E—Achievements of William Crawford Gorgas, 1938, by Joseph A. Le Prince

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?

March 1938

William Crawford Gorgas

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I cannot tell you, as I was not present when it came. The receivers had a task to trace the one-in-a-million paper bearing the requisition.

Gorgas had been assured many times that he need not worry about any possible delay, because there would be none. One man on the firing line said, until the canal was completed, he believed all requests for emergency supply needs were routed via Mañanaton (Tomorrowville).

There are probably a number of reasons why the main facts of importance in the history of malaria control and yellow fever elimination at Panama have never been brought to the attention of the American public. That, in part, is one of the reasons why permanent malaria control in our southland has advanced so slowly in the past twenty years. However, some day the right kind of author may be inspired to dramatize most of the full and true facts of interest to the public. It should make a decidedly attractive motion-picture of both valuable and historic interest. In the meantime, thousands of unnecessary deaths and millions of cases of malaria each year continue to rob the people of the South of that wealth and happiness to which they are entitled.

I caution you to be a little wary of accepting written statements in old magazines of 1901 to 1914 relative to sanitation in Panama. In one

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Doc. F—Achievements of William Crawford Gorgas, 1938, by Joseph A. Le Prince

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?

in the park, away from houses and instantaneously we knew the source of all our troubles. The infected yellow fever mosquitoes were living in houses near that park, and resting in the vegetation of the park when we thought we had them all shut up with the sulphur fumes in the houses. This had never happened in Havana where this type of mosquito had always remained politely in the buildings in the daytime—although there was plenty of vegetation in the nearby patios. They don't like a bright sunlight, while some other types of mosquitoes are attracted by light.

At once we knew the park must go. We also knew that it would be impossible to get rapid public or official approval for destroying the park. Delay might mean death to many more. So when our chief left to go North, we arranged to remove every scrap of vegetation in the park in the dead of night. In the midst of clearing operations, a policeman appeared. We entertained him. Then another, and still another arrived, until we had an entertainment on a big scale at which more than half of the police force were present. The remainder of the force apparently did not care for our company or were too shy to associate with us roughnecks. Of course, when the last leaf of grass and shrubbery in the park was gone, this yellow fever mosquito which cannot stand bright sunlight, returned to the houses nearby. These were fumigated, and this was the last chapter in the history of yellow fever in Panama.

We received no thanks, but collided with the greatest mountain of criticism any men ever had to face. As one of the fighters said: "The only friend I had left was my wife."

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Doc. G—Achievements of William Crawford Gorgas, 1938, by Joseph A. Le Prince

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 re-birth 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 have in the southern

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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?

bound for ports in the United States. He has the honor of being the first sanitary representative on the Isthmus. Dr. A. Herrick was Chief of the Surgical Division of Ancon Hospital.

Dr. J. C. Perry went to the Isthmus about the same time, arriving February 6, 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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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.

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