

Dirt: The Erosion of Civilizations, by David R. Montgomery
Google Earth QUEST – Questions
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Chapter One - Good Old Dirt

Based on what you have read and your prior knowledge, justify that soil is important to present and future generations, that "soil is our most underappreciated, least valued, and yet essential natural resource."

Chapter Two - Skin of the Earth

What are the connections between plant growth, soil fertility, and soil-dwelling organisms? How do chemical and physical processes build soil horizons?

Chapter Three - Rivers of Life

Why was agriculture initially adopted by early human populations? How did agricultural practices impact the development and growth of populations?

Chapter Four - Graveyard of Empires

What was happening to soil during the Bronze Age in Grecians, Romans, and Mayans? (such as soil thickening, erosion, soil management practices, etc.) What caused these impacts to soil?

Chapter Five - Let Them Eat Colonies

What were some of the new soil improvement theories from the Netherlands and England? How did these ideas make soil more productive?

Chapter Six - Westward Hoe

Why were Washington and Jefferson concerned about the destructive nature of colonial agriculture? What were the social and economic impacts of colonial soil erosion?

Chapter Seven - Dust Blow

On April 27, 1935, Congress declares soil erosion a natural menace and set up the Soil Conservation Service. Why was there a need for this group? Were they effective? (Hint - look to the 1977 Soil and Water Resources Conservation Act)

Chapter Eight - Dirty Business

What did the following people contribute to the modern organic farming movement - Edward Faulkner, Wes Jackson, Sir Albert Howard?

Chapter Nine - Islands in Time

What are Iceland, Haiti, and Cuba doing to their soil? Will their societies end up like Easter Island?

Chapter Ten - Life Span of Civilizations

When it comes to soil, what do civilizations need to do to survive?

Gallery Walk Questions

Note that any of the questions from above can also be used during a Gallery Walk exercise.

- Describe a series of events ("breakdowns") that will occur in Earth's systems once our planet runs out of soil.
- If earthworms are nature's plows (as described by Darwin on page 13), then we should just be able to introduce massive numbers of earthworms to farmland. This way, we have a natural way to plow the land instead of using machines.
- "Farmers with high debt and/or a narrow profit margin can be forced to choose between conserving soil and going bankrupt or working the land until it becomes economically futile." (p. 175) Farmers should do the right thing and choose to conserve soil.
- To get the general public to be educated and to care about soil use and abuse, Hollywood needs to make a film for the big screen so the word can get out.
- The Dust Bowl (1935) will never happen again.