

The Human Earth (MAE 124/ESYS 103)

Lecture 10

Energy: Fossil Fuels

Coal

cartoon: <http://www.usnews.com/usnews/politics/whispers/articles/051219/19cartoon.htm>

19 Dec 2005. <http://www.usnews.com/usnews/politics/whispers/articles/051219/19cartoon.htm>

Coal



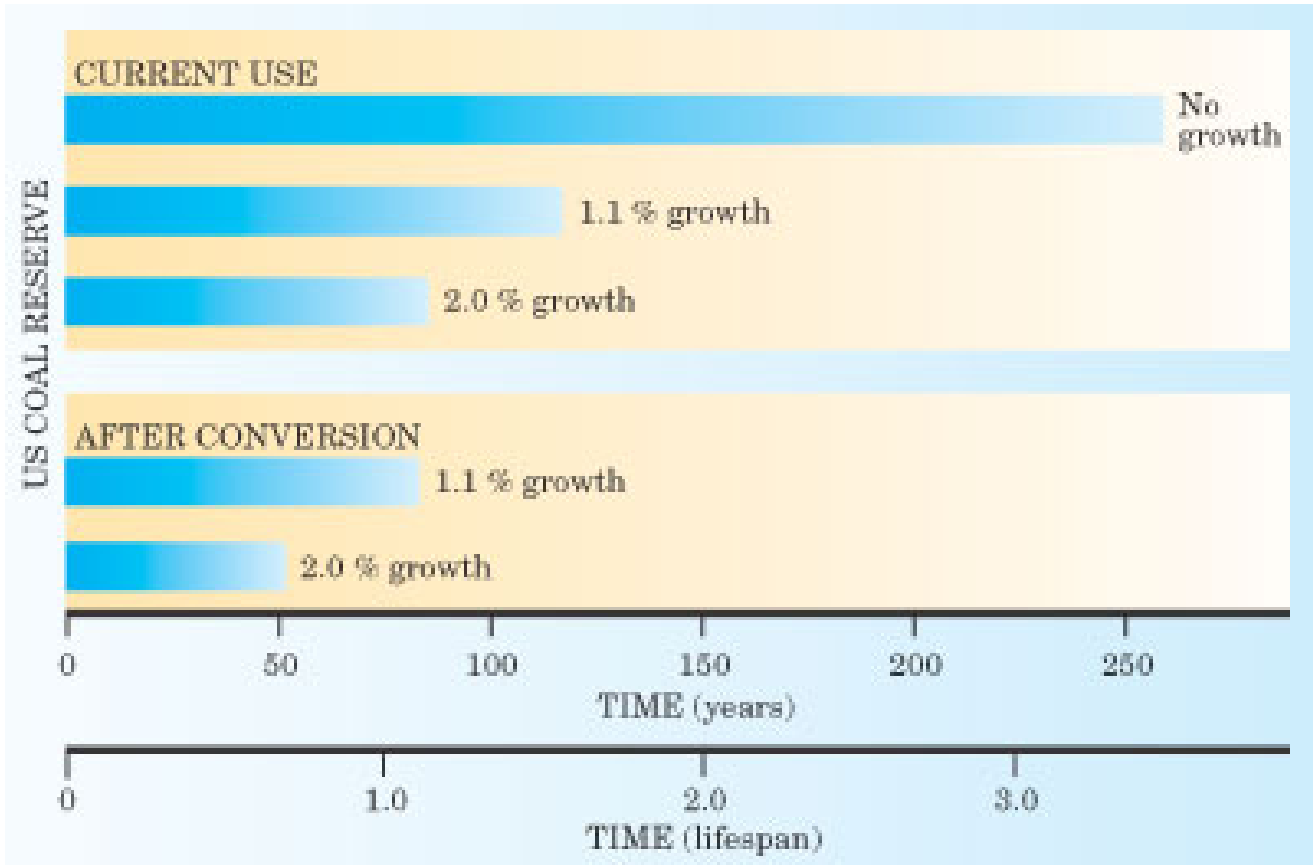
Anthracite (left) and bituminous (right) <http://resourcescommittee.house.gov/subcommittees/emr/usgsweb>

Coal Mines



<http://www.whitehaven.talktalk.net/history/coal.htm> <http://www.rootsweb.com/~wvcoal/>

Coal



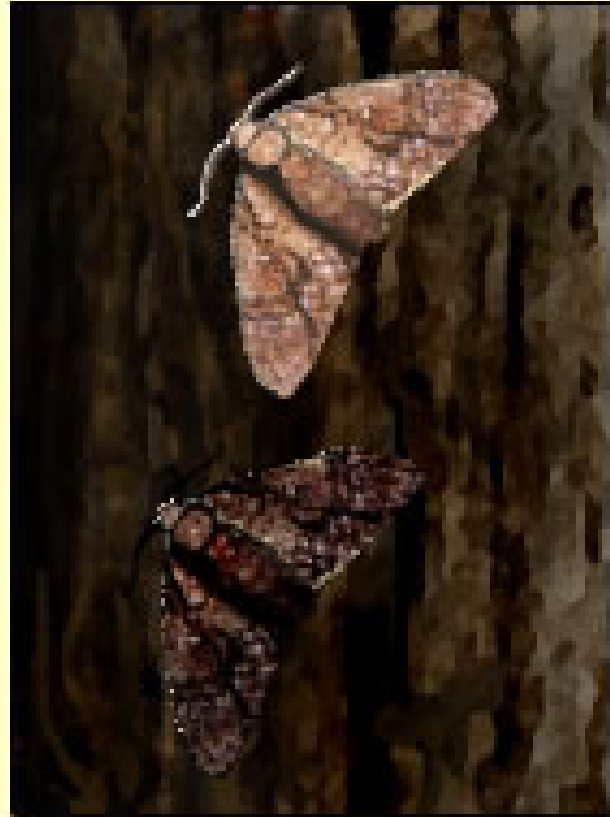
<http://www.physicstoday.org/vol-57/iss-7/p47.html>

Coal Power and Pollution: Gavin Power Plant, Ohio



12 May 2004 lawsuit. Plant burns 10 billion pounds high sulfur coal per year.
http://www.tlpj.org/pr/cheshire_051204.htm

Coal Power and Pollution: Peppered Moth



<http://www.bbc.co.uk/schools/gcsebitesize/biology/variationandinheritance/3evolutionrev5.shtml>

Coal Mining

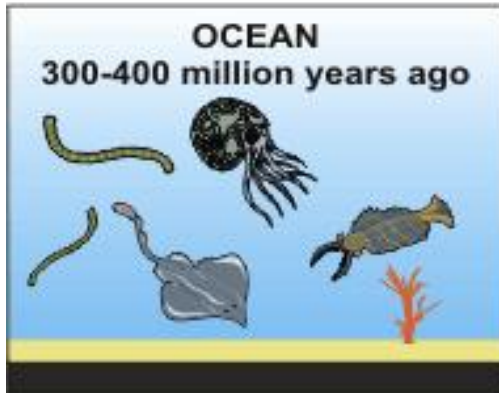
OPENCAST COAL MINING IN NEW ZEALAND



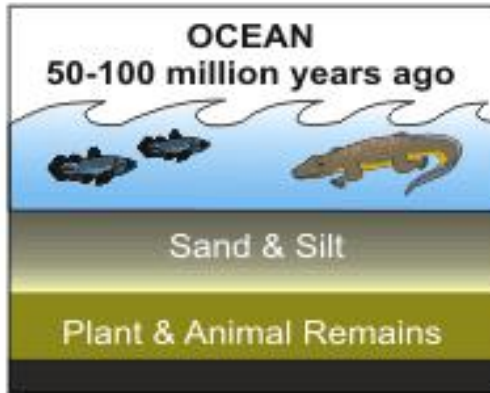
http://www.minerals.co.nz/html/main_topics/resources_for_schools/coal/coal_index.html

Oil and Natural Gas Formation

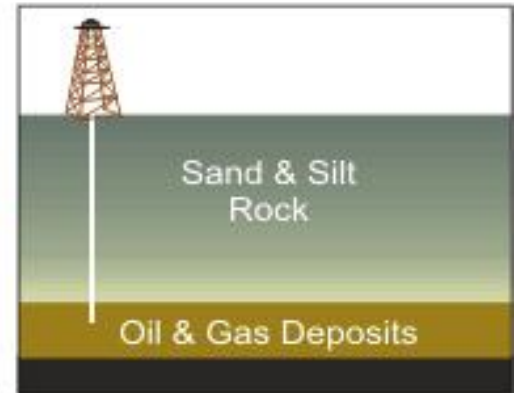
PETROLEUM & NATURAL GAS FORMATION



Tiny sea plants and animals died and were buried on the ocean floor. Over time, they were covered by layers of silt and sand.



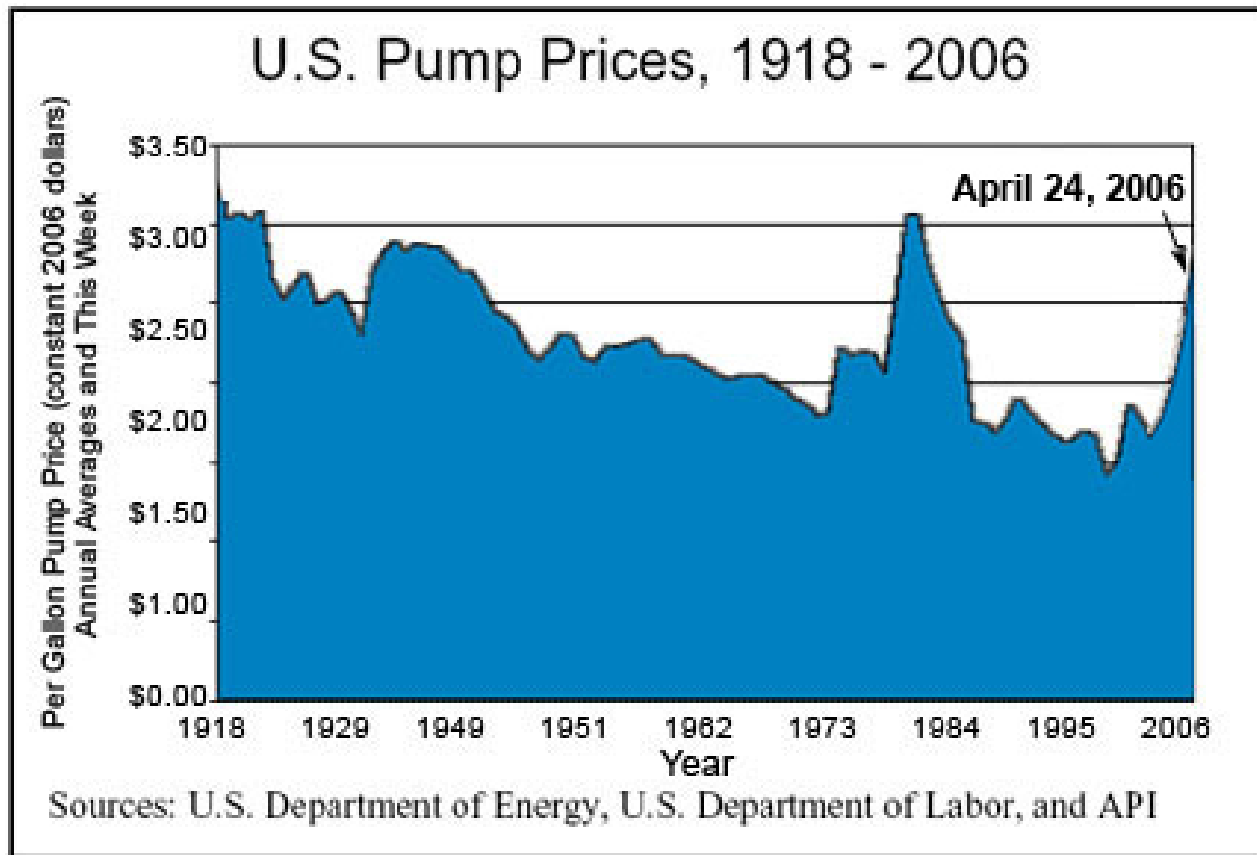
Over millions of years, the remains were buried deeper and deeper. The enormous heat and pressure turned them into oil and gas.



Today, we drill down through layers of sand, silt, and rock to reach the rock formations that contain oil and gas deposits.

<http://www.eia.doe.gov/kids/energyfacts/sources/non-renewable/naturalgas.html>

Petroleum Prices



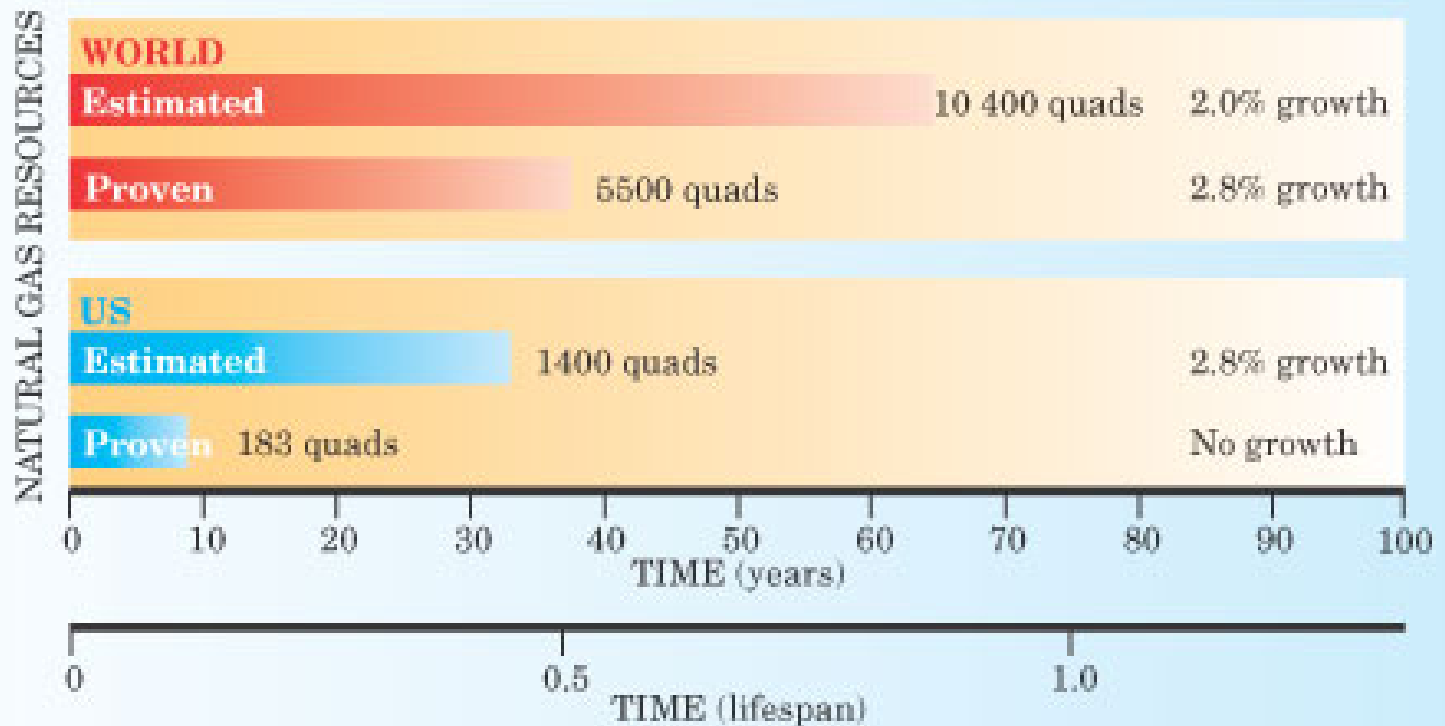
<http://www.factsonfuel.org/gasoline/index.html>

Petroleum

cartoon: <http://www.bendib.com/environment/4-28-End-of-civ-as-we-know.jpg>

<http://www.bendib.com/environment/new.html>

Natural Gas



<http://www.physicstoday.org/vol-57/iss-7/p47.html>