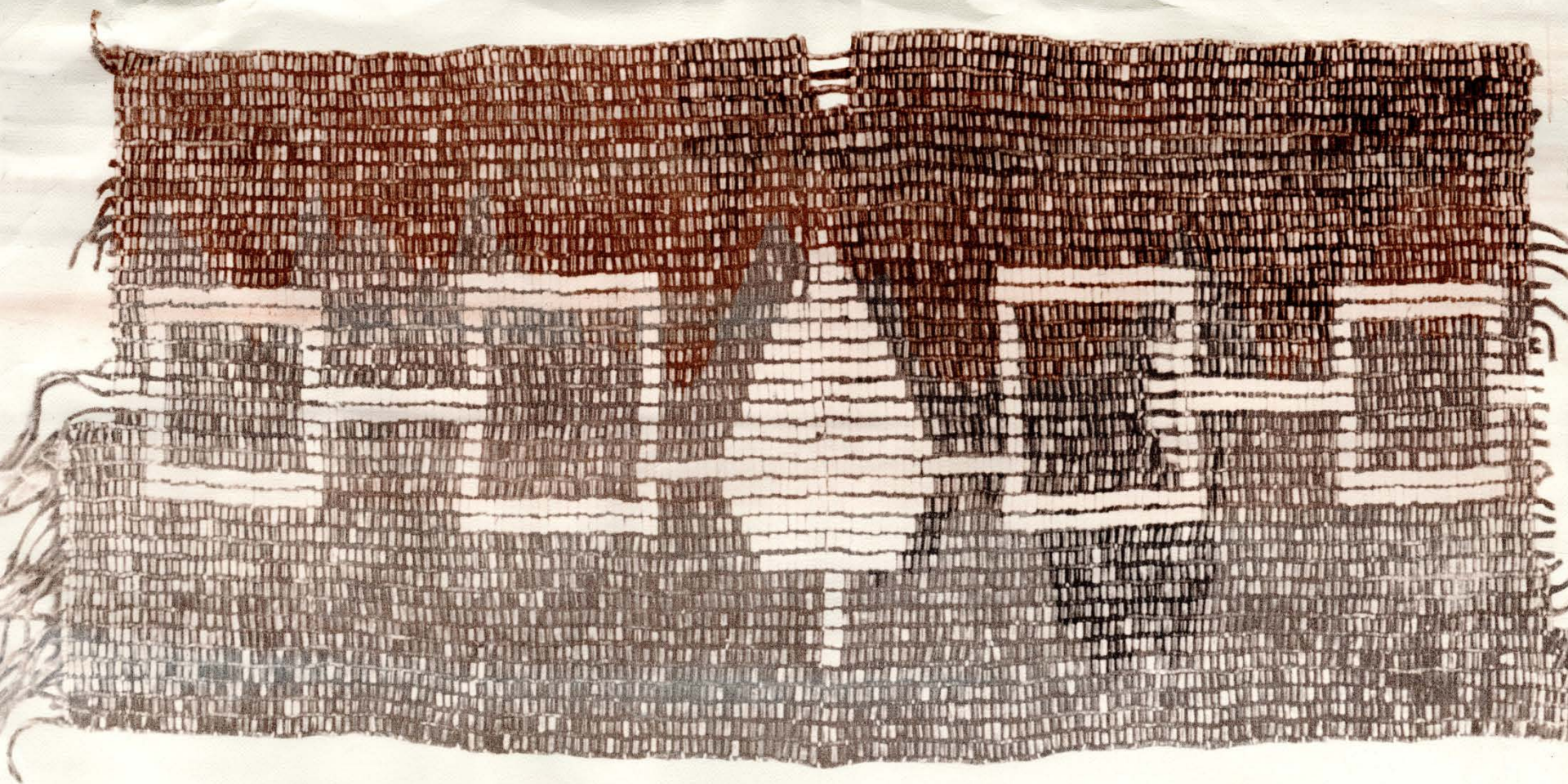


Georgian

Quebec
Kahnecatake

Montreal



Ohio

Pennsylvania

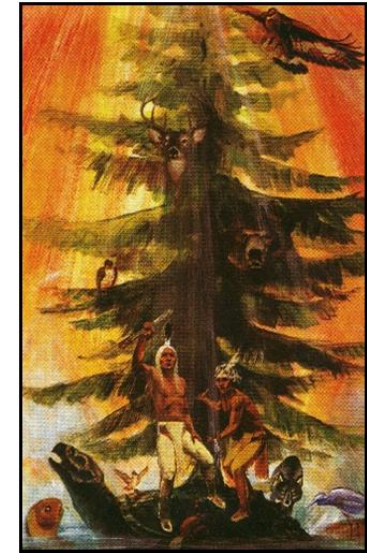
0 50 mi.

Conn.

Haudenosaunee Environmental Task Force



HETF 2007

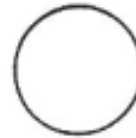


Haudenosaunee
Environmental
Restoration: An
Indigenous Strategy for
Human Sustainability
(1995)

Dish with One Spoon

Source of External Energy

Sun, moon, human energy, . . .



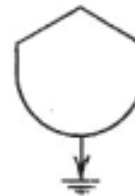
The Heat Sink

The loss of energy from a system or its units.



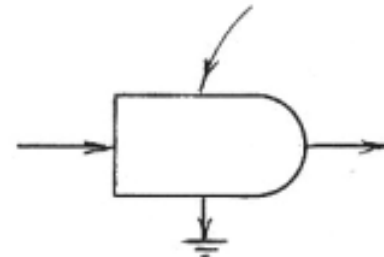
Storage Tank

Battery, bank account, soil, . . .



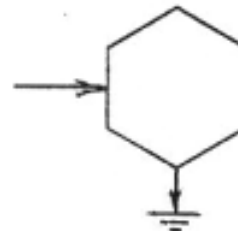
Primary Production Unit

Bacteria, green plants.



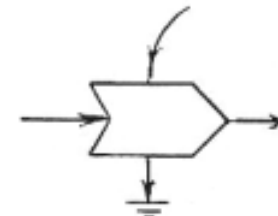
Consumption Unit

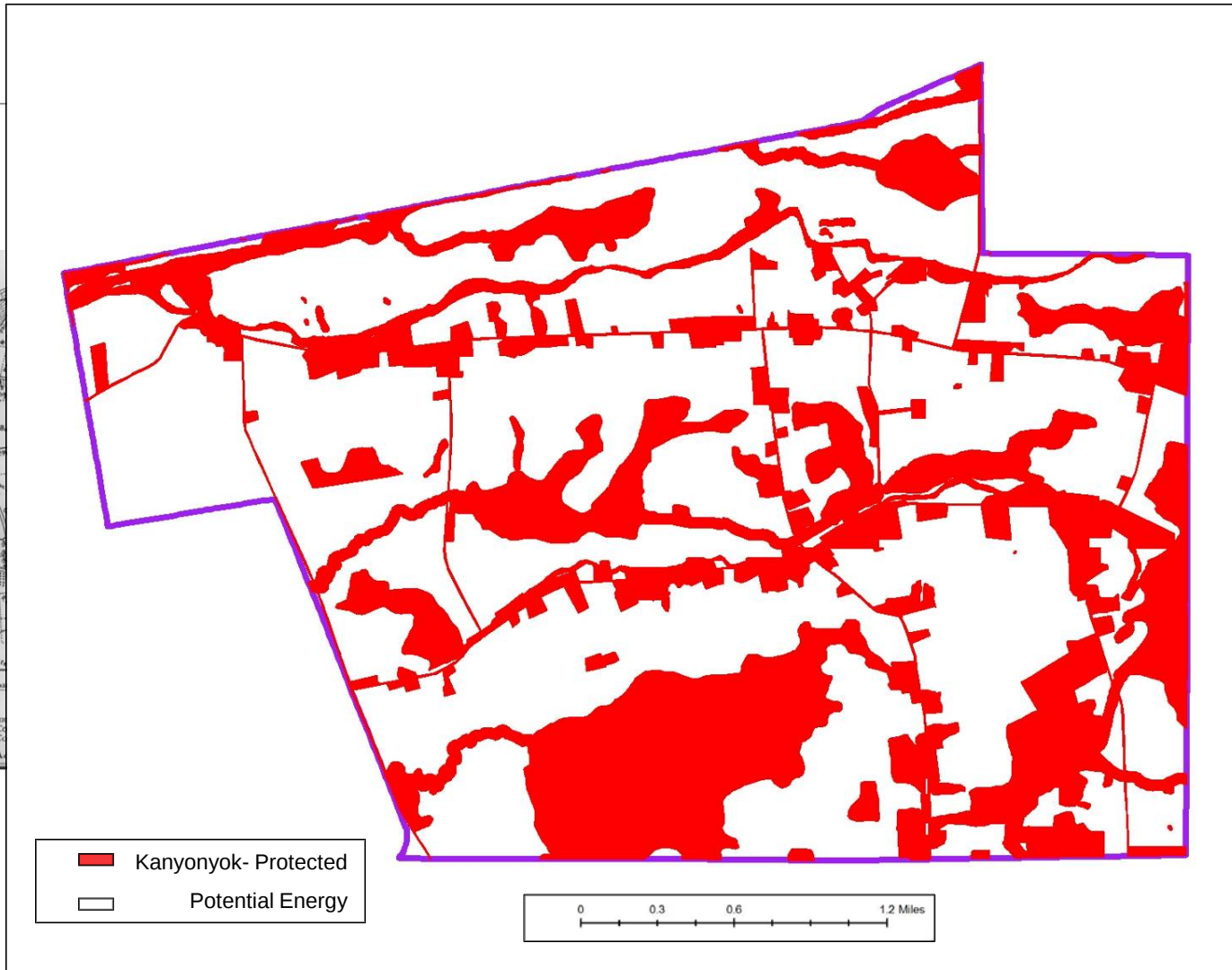
Animals, industry.



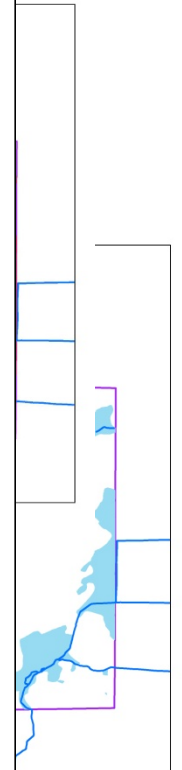
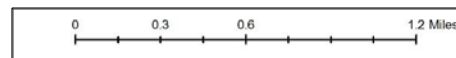
Energy Mixer or Work Gate

Animal, engine, . . .

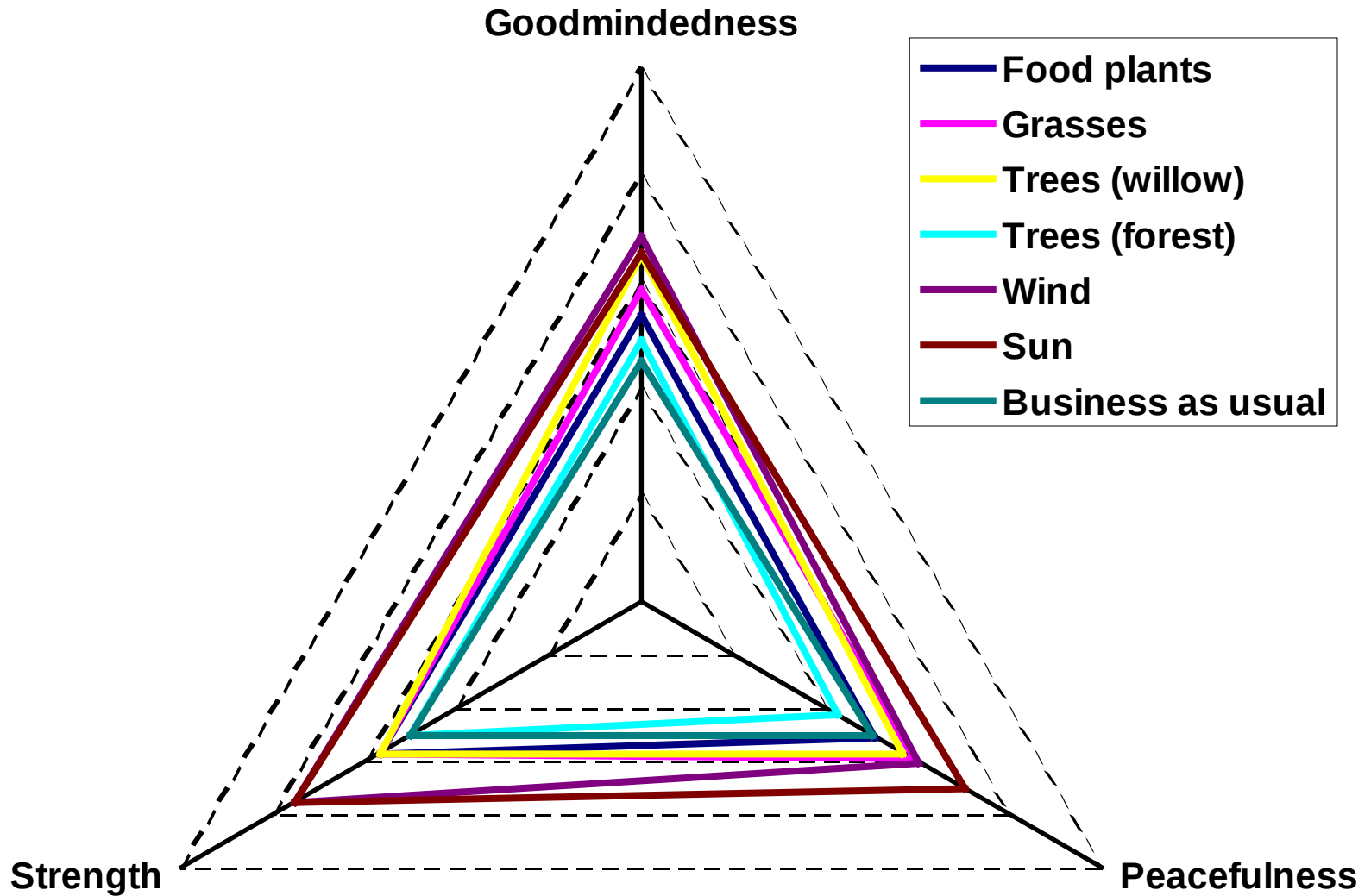




■ Kanyonyok- Protected
□ Potential Energy



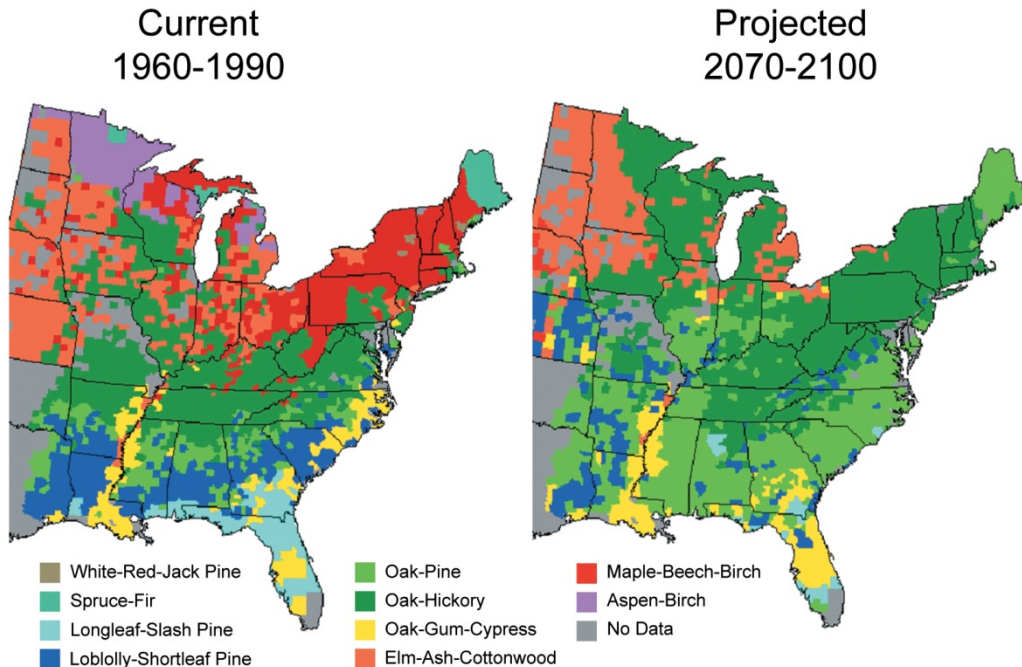
Energy Restoration



Aquatic Restoration



Forest Restoration



NAST²¹⁹

The maps show current and projected forest types. Major changes are projected for many regions. For example, in the Northeast, under a mid-range warming scenario, the currently dominant maple-beech-birch forest type is projected to be completely displaced by other forest types in a warmer future.²⁴⁴

<http://www.epa.gov/climatechange/impacts-adaptation/forests.html>



Center for Native Peoples
and the Environment



Grassland Restoration





Bio-Cultural Restoration

The Oil Age

World Oil Production 1859 - 2050

Oil is created from the remains of plants and animals that died over millions of years. The sources of most oil found today can be traced to two brief periods of global warming some 250 and 150 million years ago, and to the shallow seas lying with great continental shelves of the earth at the time. As generations of shells settled to the bottom, a unique carbon-rich sedimentary rock was formed. Over time, some of the rock rose to just the right depth, where the earth's natural heat gently cooked the rocks organic fraction, transforming it into a dark liquid, then known as "crude oil" or "crack oil".

After its creation, oil migrates great distances, and much of it eventually seeps to the surface. Petroleum has been gathered from cracks from pools and powered it on boats and down to the water. Seeps of burning crude advanced a modern man, trapping at least one village in the "Crane and Indian" made tradition from petroleum, while oilfield "Crane" has "cracked" have on a hundred billion gallons.

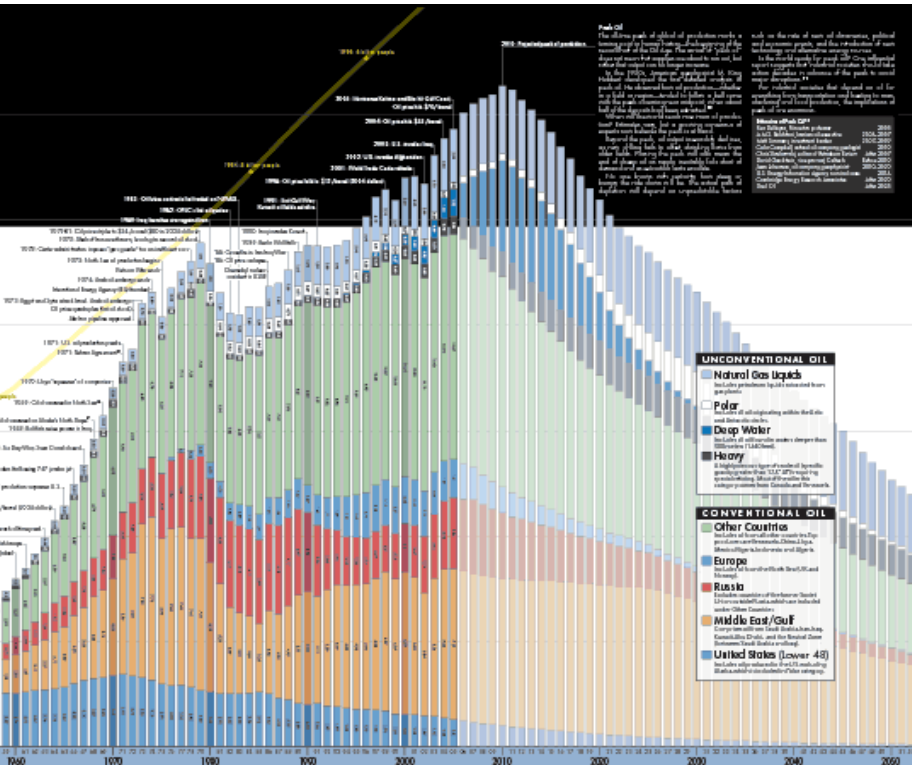
The Oil Age began in earnest in 1859, when Edwin Drake drilled one of the world's first commercial wells in Titusville, Pennsylvania. Standard Oil's dominance in the late 19th century was due to its control over the entire oil supply chain, from the well to the pump to the barrel to the tank car to the pipeline to the refinery to the burner.

Oil proved more effective than coal in running the world's armies, trains and shipping networks. The use of the

early 1980s we began consuming more oil than we found. Today experts say we consume about four to six barrels of oil for each one discovered, a trend that is leading the world to an inevitable tipping point: the peak and then decline of global oil production.

The historical phenomenon of oil production and depletion was first explained by geophysicist M. King Hubbert, who in 1956 correctly predicted the 1970-1971 peak in U.S. production. Today, about three-quarters of the world's largest oil-producing countries have reached their peak and now follow the same downward curve. Indeed, if the projections of a growing number of scientists prove correct, we are now entering the second half of the Oil Age, an era characterized by dwindling supplies of world's most essential commodity. Whether rationing can be developed soon enough to avert modern energy disaster is a question that looms large every day.

Abundance to Depletion Model
About 200 years of the Oil Age are depicted in the next chart, which shows historical oil production data with projections of future output published by the Association for the Study of Peak Oil & Gas (ASPO), a network of scientists dedicated to studying the "shape and impact of the peak and decline of world oil and gas production." Estimates of future output are based on public and private assessments of the world's ultimately recoverable oil supply, and assumptions regarding the future rate of depletion for individual countries.



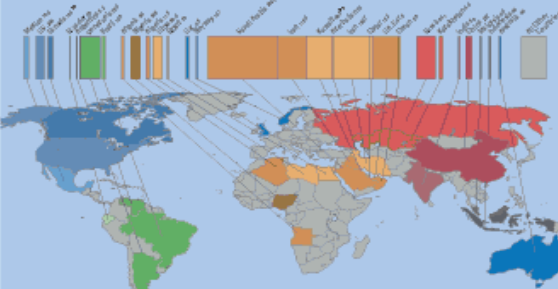
The Power of Oil

Since 1859, oil has been the primary source of energy for the world. It has powered the industrial revolution, the transportation revolution, and the modern world. Oil is the most important commodity in the world, and it is the most important source of energy for the world. Oil is the most important commodity in the world, and it is the most important source of energy for the world. Oil is the most important commodity in the world, and it is the most important source of energy for the world.

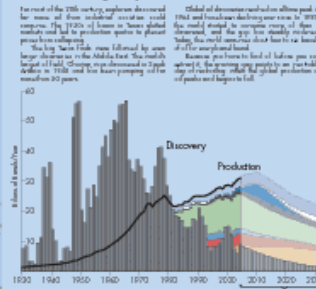
Production and Consumption



World Oil Reserves



The Growing Gap



Oil's Cousins: Coal and Natural Gas



Notes: The data in this report is based on the most recent available data. The data is subject to change as more information becomes available. The data is for informational purposes only and should not be used for investment purposes. The data is for informational purposes only and should not be used for investment purposes. The data is for informational purposes only and should not be used for investment purposes.

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