## Destined to Stabilize?

Book Review by Anne Manetas

Until we get the good sense to diversify away from petroleum, we are going to have a major stake in assuring access to it.

 former U.S. diplomat Lindsey Grant in "Why do the terrorists hate us"
The Social Contract, Vol. XII, No.1

Geodestinies petroleum geologist Walter Youngquist provides a multidisciplinary look at the fates imposed on nations and peoples by the distribution of Earth's resources (geodestinies). Youngquist's survey includes examples of the way in which minerals have played a role in the rise and fall of nations and peoples from the Stone Age to the Iron Age, and suggests that mineral resources have been at the heart of most world events from to the expansion of the Roman Empire in search of gold and silver to the Japanese attack on Pearl Harbor to seize control of oil fields in the Dutch East Indies. The need for foreign sources of energy continues to shape world events today, as no industrialized nation is currently self-sufficient in its energy needs. The fate of all industrialized nations is determined in part by their geodestiny.

The U.S. has had the good fortune to inherit a vast and varied reservoir of mineral and energy resources. Its and rise as the most powerful and affluent nation on Earth has been directly related to this inheritance. Paramount among our national energy resources is oil, the lifeblood of our current industrialized, megaconsuming society.

Since the discovery of oil in Pennsylvania in 1859, this energy source has literally fueled the U.S. in its rise to power. But our resource base is finite (as is the world's) and we have already started down the other

Anne Manetas is Director of Environmental Projects for NumbersUSA.com, a non-profit membership organization which seeks to educate members of Congress and their staff to issues of population growth, sprawl, and immigration policy. side of the oil production curve. In 1970, U.S. domestic oil production peaked. Our ensuing reliance on foreign oil culminated in 1994 when the United States began to import more oil than it exports. These two dates (1970 and 1994) are profoundly important in U.S. history because they sealed our fate as forever dependent on foreign oil. For this reason, U.S. foreign policy is now dominated by our reliance on foreign oil. It is worth noting that during this same period of time the U.S. went from being the largest creditor nation to the largest debtor nation in the world – the move to debtor status integrally linked to our increasing dependence on foreign oil.

Some have suggested that further exploration and drilling in the United States would move the U.S. back to being a net producer of oil. Youngquist addresses this by noting that the U.S. is the most thoroughly drilled and oil explored nation in the world with 77 percent of domestic wells now "stripper wells" producing less than 10 barrels of oil a day. The only possible source of significant oil reserves (maybe 3.2 billion barrels) in the U.S. now lies in less than one percent of the currently restricted 19 million acres of the Artic National Wildlife Refuge (ANWR) in Alaska.

While Youngquist does not explicitly come out in favor of drilling in ANWR, some environmentalists will likely take issue with his implied suggestion that ANWR be opened to drilling. Yet Youngquist is compelling in reminding the reader that the environmental costs of drilling in ANWR may not be as high as expected and that the oil will invariably come from somewhere. If not ANWR then where? The Middle East where American lives have been risked to secure oil? The ocean floor that is more environmentally sensitive than ANWR and is home to certain endangered species? Youngquist reminds us that there are environmental costs involved in *any* form of energy production; it is just a matter of where the toll will be paid.

The ban on offshore drilling off of most of California's coastline offers another example of the way in which restricting land from mineral production does not obviate the need for the resources. California's oil needs just have to be supplied with oil from other places, notably Alaska. With regard to this "Not in my backyard

(NIMBY)" attitude Youngquist writes, "If the environmental movement is to be morally honest about these matters, it should recognize that by locking up domestic resources from development, the problem does not disappear."

Recognizing that world oil reserves will not meet our energy needs forever, some have placed great faith in the search for alternative energy sources. Youngquist explores various alternatives, both renewable and non-renewable. His detailed consideration of alternative energy sources ranging from oil shale (which interestingly contains neither oil nor shale) to nuclear power offers an exhaustive list of potential and possible alternative energy sources that all have one or more drawbacks. In the case of ethanol, widely touted as a non-polluting renewable alternative to gasoline, less energy is recovered than it takes to produce the ethanol — a net energy loss! Youngquist's analysis makes it clear that while the search for alternative fuel sources must go on, right now, no alternative energy source rivals oil.

With only 5 percent of the world's population, the U.S. uses almost one-third of the world's annual energy supplies and is the largest oil consumer in the world. As Youngquist so clearly demonstrates, it is almost unimaginable that the U.S. will ever again be self-sufficient in oil production, its fate as a foreign-oil dependent nation forever sealed by dwindling reserves and a voracious appetite for oil fueled by a growing population.

It is a growing population that presents the biggest challenge to the U.S. in meeting its energy needs. The current high standard of living in U.S. is a direct result of the some 18 million barrels of oil consumed a day in the U.S. As long as U.S. population growth continues, it will be increasingly difficult for the U.S. to maintain this standard of living and no amount of conservation will overcome the problems presented by an ever-increasing population. (Youngquist makes the point that neither efficiency nor conservation are forms of energy and the benefits of both are currently being cancelled out the increased demands of a growing population.)

According to the United Nations *State of the World* 2001 report, the United States is the only industrialized nation expected to experience significant population growth in the next 25 years. Almost all other growth is projected to occur in developing countries. Noting the current worldwide priority for population growth,

Youngquist reminds us that "worldwide the choice is for more people, and a corresponding exponential growth in the use of resources." It is worth noting, however, that this is not the choice of the American people. Author Roy Beck has made this point: the American people made the choice for a stable population through their move to replacement-level fertility rates. It is Congress who is now forcing population growth on the American people via mass immigration.

Virtually porous borders and record high annual legal immigration have set the U.S. on a course to hit 400 million by 2050. Unless Congress acts to lower immigration, this growth will pose major challenges to the U.S. as it tries to maintain a high standard of living that is based on availability of mineral resources (arguably one of the main attractions to the some one million legal and 800,000 illegal immigrants who settle in the U.S. each year). Youngquist spells out the implications of this expansive immigration policy, "A nation which does not control its borders loses its sovereignty, and control of its economic future."

What does this mean for the future? We are already living with the repercussions of U.S. dependence on foreign oil. Our national debt and imbalance of foreign trade speak to the loss of economic control we have suffered as a result of our reliance on foreign oil. U.S. policies aimed at securing oil in the Middle East have fanned the flames of anti-American sentiment and religious fanaticism that exploded when the first plane hit the first tower on September 11.

World oil production is expected to peak in 2010 – 8 short years away. Youngquist cautions us that the date we actually run out of oil is not as important as the date when production begins to decline. What matters now is how we choose to prepare for the fate that will ultimately be imposed on us by the Earth's resources. Will we choose to stabilize our population? Are we willing to make the lifestyle changes that will be required to move to alternative energy sources? Youngquist, by no means a doomsayer, offers a source of optimism for the future. He assures us that the ultimate resource available to us is the creativity and intellect of the human mind. Whether or not we will choose to use this resource to adapt to our pending fate remains to be seen.