Comments by George Wright, December 9, 2005

Technocracy has always been subjected to being "sidetracked." Some people feel that our concept and organization becomes their private vehicle to expound on anything that comes to mind, forgetting that we are a scientific research, educational, and informational type of organization that does not judge human behavior, nor do we get personal. We are science in its purest form. Who was the bad guy yesterday has no bearing on our future, because good or bad they are navigating in a price system. Our job is to inform others that the real cause for mischief is the price system itself and its days are numbered. By jumping into the chaotic mix of price system name-calling and judgmental positioning just confuses people.

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We Technocrats must keep uppermost in our thoughts the realization that people immersed in monetary or price systems behave according to the rules and behaviors approved by that society. In business or politics one is generally rewarded for clever manipulation of reality, with facts played fast and loose. For one to understand Technocracy he/she must have the ability to accept facts as the criteria for truth. This ability generally is not true of the general public at large… The following is an example:

Guest column: Time to discard fifty years of energy myths. Date: Nov. 20, 2005
http://www.azstarnet.com/allheadlines/103209
Opinion by Matthew R. Simmons and Stewart Udall

To craft an intelligent response, we must begin by discarding 50 years of energy myths. Because our continent had huge reserves of oil, coal, and natural gas, Americans have nurtured a set of energy illusions that have now come home, in biblical fashion, to haunt us … The most dangerous myth is that cheap energy is our birthright, that the well would never run dry.

Regarding the myths needing to be discarded, Technocracy said it better 84 yrs. Ago … extracted from an interview with Howard Scott, co-founder of Technocracy, by Charles H. Wood, Associate Editor, *The New York World*, Feb. 20, 1921 (copies available by request).

"The whole problem may be stated," Scott said, "as the problem of the elimination of waste, but waste to an engineer has a different meaning than it has to the general public. People generally think of waste only in terms of potato peelings, or of spending money for what they hanker for, instead of for what they think they ought to buy. If the elimination of that kind of waste could solve the problem, China should be the richest country on earth today; but the engineer recognizes exhaustion of any natural resource is waste."…This quote decided technicians to get together." … "The technicians, Mr. Scott explained, "are the only group who know how people get things. **They are not only producers, but they are the only ones who know how production is accomplished**. Bankers don't know, Politicians and diplomats don't know. If these fellows did know, they would have gotten the wheels started before this."

How do we reach out to these technically trained individuals in the general populace? What could be done to make them aware of our point of view — what has the potential to educate them to understand Technocracy?

Recently some very capable Technocrats have organized into a team to produce an Energy Labeling Project. They see this as a means to raise Technocracy's viewpoint above the noise of politics and pressing problems of our daily Price System lives. Many Technocrats may remember Arvid Peterson's two part presentation. Part one was the Analysis and Part two, the Synthesis, which presented the energy evaluation example using three different groups of tires. The most energy efficient of the three wasn't the overall longest wearing tire but the one which achieved the most miles per energy unit. This is the project that Mark Ciotola, Fern McFarlane, Ron Miller, and Tyson Scholetter are working on to create. The Arvid Peterson presentation is available from CHQ for $4.50 on a DVD which also includes the Exponential Function, and Empty Oceans, Empty Nets.

Energy Labeling Project Update – November 28, 2005

The Energy Labeling Project has made slow, but steady progress over the past two months, since the last update…

Our goal is to develop a program in which some producers will actually adopt energy labeling. Producers can themselves determine the energy they directly use, so that they can have great confidence in that measurement and are more likely to report it. Later, as more producers adopt energy labeling and as our methods improve, it might be possible to deduce accurate total energy inputs.

We have developed several templates and standards for calculating direct energy added distinguishing between single versus batch production and multiple product lines. These are in the form of Excel spreadsheets and can be used by any business.

Fern McFarlane is conducting an onsite case study for a local bakery. Ms. McFarlane has gathered data regarding equipment usage, batch times, and other factors. This is an important study, because baked goods are extensively consumed and typically still made in North America. Another case study includes printing and assembling a commercially available, small run book. We have plugged data gathered from the case studies into our templates to create initial energy input figures.

Tyson Schoettler has gathered information regarding energy inputs required for producing paper and also figures to translate electricity inputs into “upstream” coal inputs. These figures are preliminary, but eventually can help to move closer to determining total energy inputs for our case studies

Ron Miller has provided technical advice regarding making more accurate electric energy usage measurements as well as recommending several energy-related references. He and Mr. Schoettler have located additional information sources, so that we are beginning to develop a growing bibliography for our project. Developing a strong bibliography is important to building credibility for our project as well as for our own edification.

In addition to work on the book case study and templates, Mark Ciotola is producing a database of energy requirements for industrial equipment such as milling machines and lathes. This database will help with calculations for products where we do not have onsite access.

Case study work is continuing, but we have also started to draft energy labeling standards

and guidelines. Early next year, we will move to the next step that involves developing a certification and monitoring process.

On behalf of us all — Mark Ciotola

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Mark Ciotola responds to questions from Pam Gill re: The Energy Labeling Project:

One could write volumes in response to Pam's questions, but I will try to be concise. The answers reflect experience gained on the Energy Labeling Project. They do not necessarily represent the official views of Technocracy Inc. or the functioning of a full-blown energy accounting system.

(Q) And if not "each and every" item, which ones?
(A) A good question. All sorts of things could be measured, even if not perfectly accurately. Yet, a Technate might not wish to measure certain things due to the psychological needs of humans. Also, if a measurement is not necessary to the successful functioning of a Technate, then it probably shouldn't be made. Such measurements would reduce a Technate's efficiency.

In terms of the Energy Labeling Project, we are only attempting to measure energy inputs for commercially available goods or services. For the limited purposes of our project, producers would only account for energy inputs that are significant and easily measured.

(Q) Everything involves some wear and tear. Does that get taken into account? Say a person needs to wear protective clothing to do some job and the clothing can only be worn 25 times before it can't be used any more.
(A) Each unit (or batch) produced would have to be "charged" with 1/25 of the energy cost of the protective clothing.

Q) Then when you get to health care, many services are intangible (as are educational and recreation, etc.)
(A) Education requires energy… Remember, we are measuring the energy required to produce a good or service, not how much energy the good or service contains.

(Q) If I pick an apple off a tree, since there would be no private property except for personal effects, would that just be my apple for no energy units?
(A) A single apple off of a wild tree would be likely be insignificant…

(Q) Still work went into maintaining the orchard, so maybe there would be some control. If I get that same apple from a store, has the labor to pick the apple, the fertilizer, the truck to drive it to the store, etc. all been measured and calculated as to how much applies to my one apple?
(A) The case of an orchard appears to require a significant input of energy. An apple from an orchard could have a significant energy cost.

(Q) Maybe food and schooling would all be "free"?
(A) For now a policy issue? I'll leave that question to others to answer.

The Energy Labeling Project has shown that at least some form of energy accounting is possible and pragmatic. It is certainly possible for producers to make reasonably accurate calculations of energy directly added in their operations. If all producers report energy added, then it will be possible to tally "upstream" sources (the energy added into raw materials and parts) to deduce the total energy required producing and distributing goods and services.

Did these answers help at all?… Best regards, Mark

Feel free to send comments and questions to the Energy Labeling Project via CHQ111@aol.com

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On Climate Change, a Change of Thinking
http://www.nytimes.com/2005/12/04/weekinreview/04revkin.html <http://tinyurl.com/7scx6>

ANDREW C. REVKIN, *New York* Times, Dec. 4, 2005

The following is an edited and condensed version of the original article:

The Kyoto Protocol was ultimately ratified by 156 countries. It was the first agreement of its kind, but it may also prove to be the last.

In the years after the protocol was announced, developing countries, including the fast-growing giants China and India, have held firm on their insistence that they would accept no emissions cuts, even though they are likely to be the world's dominant source of greenhouse gases in coming years. Due to response to the world's ballooning energy appetite, which, largely because of economic growth in China, has exceeded almost everyone's expectations; and there are still no viable alternatives to fossil fuels, the main source of greenhouse gases.

There is a growing recognition of the economic costs incurred by signing onto the Kyoto Protocol. As Prime Minister Tony Blair of Britain, a proponent of emissions targets, said in a statement on Nov. 1: "The blunt truth about the politics of climate change is that no country will want to sacrifice its economy in order to meet this challenge."

That agreement was a success, but a misleading one in the context of climate. It led to years wasted in these annual shindigs designed to generate sound bites instead of sober contemplation of difficult issues.

While it was relatively easy to phase out ozone-harming chemicals, called chlorofluorocarbons, which were made by a handful of companies in a few countries, taking on carbon dioxide, the main climate threat was a completely different matter, said Richard A. Benedick, the Reagan administration's chief representative in the talks leading to that agreement who is now a consultant and president of the National Council on Science and the Environment, a private group promoting science-based environmental policies.

Carbon dioxide is generated by activities as varied as surfing the Web, driving a car, burning wood or flying to Montreal. Its production is woven into the fabric of an industrial society, and, for now, economic growth is inconceivable without it. Developing countries — China and India being only the most dramatic examples — want to burn whatever energy they need, in whatever form available, to grow their economies, and raise the living standard of their people.

The only real answer at the moment is still far out on the horizon: nonpolluting energy sources; but the amount of money being devoted to research and develop such technologies, much less install them, is nowhere near the scale of the problem, many experts on energy technology said.

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The long road down: Decline and the Deindustrial Future, by John Michael Greer

For more than three decades now, the world has been on notice that the long afternoon of industrial society is drawing to a close. The Club of Rome's epochal report, “The Limits to Growth,” (1973), the first of many persuasive studies, warned that unrestricted economic growth would collide with hard planetary limits sometime in the early twenty-first century, unless expensive and politically unpopular steps were taken soon. Of course, those steps weren't taken at all. A failure of vision and political will on the part of leaders and constituencies alike threw away the decades that could have made a difference. Today we live in the shadow of that failure.

Yet an odd blindness affects attempts to make sense of our predicament. People on all sides of the debate talk as though the future has only two possible shapes: progress or apocalypse, either business as usual for the foreseeable future or a catastrophic slide into savagery and mass death. Whether the topic is global warming, renewable energy, fossil fuel depletion, or anything else, the same claims repeat like a broken record. One side insists that technology will inevitably solve our problems and yield a better life for all, while the other side brandishes worst-case scenarios and talks of millions of corpses. It should be obvious that these aren't the only possibilities. The fact that this isn't obvious at all is worth exploring.

Most people would notice something odd if two meteorologists, discussing tomorrow's weather on a wet autumn day, ignored all possibilities except clear weather or a sudden snowstorm. Yet the same sort of illogic goes unchallenged in debates about our future. Thus, it's crucial to set aside our assumptions and look at what actually happens when civilizations run into the limits of their resource base. That's happened many times in the past, but technological spurts and sudden collapses are rare. Far more common is a process nobody thinks about nowadays: decline.

The Course of Decline

To see past mythology to the hard realities of the future takes a clear sense of our predicament. More than six billion people live on a planet that can support one billion indefinitely. We can't meet everyone's needs now, and the resources to maintain even today's standards of living are running short. Resource wars have already begun — the 2003 US invasion of Iraq may someday be recalled as the first of the Oil Wars. Meanwhile, global warming boosts the cost of natural disasters so fast that one of the world's largest reinsurance firms, Swiss RE, warns that this all by itself will bankrupt the world economy before 2060.

Leave out the deus ex machina of progressive and apocalyptic mythologies, map the results onto a scale of human lifespans, and a likely future emerges. Imagine an American woman born in 1960. She sees the gas lines of the 1970s, the short-term political gimmicks that papered over the crisis in the 1980s and 1990s, and renewed trouble in the following decades. Soaring energy prices, shortages, economic depressions, and resource wars shape the rest of her life. By age 70, she lives in a beleaguered, malfunctioning city where half the population has no reliable access to clean water, electricity, or health care. Shantytowns spread in the shadow of skyscrapers while political and economic leaders keep insisting that things are getting better.

Her great-grandson, born in 2030, manages to avoid the smorgasbord of diseases, the pervasive violence, and the pandemic alcohol and drug abuse that claim half of his generation before age 30. A lucky break gets him into a technical career, safe from military service in endless wars overseas or "pacification actions" against separatist guerrillas at home. His technical knowledge consists mostly of rules of thumb for effective scavenging, cars and

refrigerators are luxury items he will never own, his home lacks electricity and central heating, and his health care comes from an old woman whose grandmother was a doctor and who knows something about wound care and herbs. By the time his hair turns gray, the squabbling regions that were once the United States have split apart, all remaining fuel and electrical power have been commandeered by the new governments, and coastal cities are being abandoned to the rising oceans.

For his great-granddaughter, born in 2100, the great crises are mostly things of the past. She grows up amid a ring of sparsely populated villages surrounding an abandoned core of rusting skyscrapers visited only by salvage crews who mine them for raw materials. Local wars sputter, the oceans are still rising, and famines and epidemics are a familiar reality, but with global population maybe 15% of what it was in 2000, humanity and nature are moving toward balance. She learns to read and write, a skill most of her neighbors don't have, and a few old books are among her prized possessions, but the days when men walked on the moon are fading into legend. When she and her family finally set out for a village in the countryside, leaving the husk of the old city to the salvage crews, it never occurs to her that her quiet footsteps on a crumbling asphalt road mark the end of a civilization.

What Can Be Done

People try to sense the shape of the future for much the same reason that drivers watch the road ahead: it's easier to manage crises and take advantage of opportunities if you have enough time to react. So far the two myths already discussed have dominated planning for the future. Believers in progress hold that the best way to face the future is to pour money into research and development, so that new technologies to drive progress will be ready in time. Believers in apocalypse hold that the best way to face the future is to build isolated enclaves stocked with food and weaponry, where those who plan on surviving doomsday can hole up and wait it out.

If we face an age of decline, though, neither of these approaches is worth much. Research and development might be useful if focused on simple, sustainable technologies, but projects of this sort need to be done soon, As decline gets underway, funding for scientific research will be one of the first things cut. As for holing up in a mountain cabin, the slow pace of decline makes this utterly irrelevant. No matter how much canned food and ammo you have, it's not going to last a couple of centuries, and neither are you.

A different future requires a different kind of thinking. The crucial needs that must be met in an age of decline are damage control, cultural survival, and the building of a new society amid the ruins of the old. Political and business interests aren't going to meet these needs, or do anything else helpful; oil is to the modern industrial nations what corn was to the ancient Maya, and the leadership of Washington and Wall Street have turned to war just as their Maya equivalents did. Fortunately all three needs can be met by individuals and small groups with limited resources, and projects of this kind are being done on a small scale already.

Damage control focuses on ways to keep the impact of decline from costing more than it has to. The great challenge here is that most people in the developed world have no idea how to survive outside the cocoon of industrial society. As technology unravels, infrastructure breaks down, and local disasters hit, people will have to provide what they need for survival by their own efforts from locally available materials, and yet most people nowadays can't even light a fire to stay warm without matches or a lighter. People will have to learn survival, first aid, and skills of self-reliant living to meet this challenge. Groups can build on this by forming support networks and working out overlapping specialties, so people can draw on a wider range of skills.

The temptation to rely on stockpiles of food, technology, weapons, or precious metals to get through the impact of an age of decline is natural, but fatal. For two centuries machines and their products have been cheaper than skilled human beings. The result is a habit of valuing things over skills and, ultimately, a "prosthetic society" in which we're taught to neglect abilities and then pay for technological replacements. We use day planners instead of training our memories, buy bread machines instead of learning to bake, watch television instead of using our imaginations. That has to be unlearned in a hurry. In hard times, if you have a stockpile, you're a sitting target for other people interested in removing you from your stockpile and enjoying it themselves — but if you have valuable skills you can share and teach, everyone's your friend.

These same principles govern strategies to meet the other two needs. Cultural survival focuses on hanging onto the heritage of the last few thousand years. That's a tall order, because nearly all of it is brutally vulnerable to an age of decline. Nearly all books printed in the last century and a half are on high-acid paper, which gradually turns back to sawdust; librarians are already struggling to preserve collections of disintegrating nineteenth-century books.

CDs and DVDs, like other electronic media, have much shorter lifespans, and won't be playable anyway in a low-tech future. When people are struggling to survive, literature, music, art, and science aren't usually very high on their list of priorities anyway.

Any effort toward cultural survival, in other words, will have to revolve ruthless sorting. Today's sprawling libraries will need careful winnowing to sort out collections small enough,to be copied by hand if it comes to that. Musical forms that can be passed on as living traditions will be more likely to make it, which means folk music has a better chance than Beethoven's Ninth Symphony. A huge amount will inevitably be lost; the job at hand is to try to make sure that the best possible selection gets through.

One thing that's sometimes been suggested by scientists — a book packed with everything science has discovered so far — is more problematic. History shows that the scientific treatises of one age become the fossilized dogmas of the next, and people in a deindustrial society, given a book with all the answers, could too easily end up thinking that the way to answer any question was to look it up in an old book. That way lies stagnation. Far better would be a textbook on scientific method, treatises on a few useful sciences such as ecology and mechanics, and enough hints and fragments to tantalize future thinkers into launching investigations of their own.

The work of building a new society, finally, will be much easier if the process starts now. During the last two centuries, the quickest way to prosper was to ride the wave of progress, using more energy, more resources, and more technology than your competitors. For the next two centuries, the quickest way to prosper will likely stand this rule on its head. Those who accept the reality of decline and get by on less energy, less resources, and less technology than their competitors will win out. The irony is that now, before the immense knowledge base of industrial society begins to come apart, is the best time to look for ways of living that use less of what we won't have soon.

Organic farming is an excellent case in point. In the last century organic agriculture has made immense strides, to the point that it's now possible to grow a spare but adequate diet year round for one person on less than 1,000 square feet of soil, with only hand labor and no fossil fuel inputs at all, and do it while increasing the long term fertility of the soil. These methods may turn out to be our civilization's greatest gift to the future, provided they survive the approaching age of decline. Today they're covered in detail in dozens of books; whether that will be true in a hundred years depends on what we do right now.

EDITORIAL NOTES

Related articles by John Michael Greer:

The Coming of Deindustrial Society: A Practical Response <http://www.oilcrisis.com/whatToDo/DeindustrialAge.htm> (EB posting <http://energybulletin.net/2473.html>)

The Stormwatch Project: Lodges and Community Organizations Preparing for the Future <http://home.earthlink.net/%7Estormwatchproject/> (website)

More on the Stormwatch Project <http://www.oilcrisis.com/whatToDo/stormwatch.htm>

Progress as Modern Mythology <http://www.lastwizards.com/pages/modules.php?name=News&file=article&sid=33>

Why Civilizations Collapse: A Theory of Catabolic Collapse <http://www.museletter.com/Greer-on-Collapse.rtf> (RTF file) Essay recommended by Richard Heinberg

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