core of European civilization: that the state is not an entity unto itself; that the people are not the property of the state. But rather, the state is an agency which must be dedicated to the care of the general welfare of present and future generations of all of the people. This idea, which was embedded in Christianity, as in Paul's I Corinthians 13, is the standard of European civilization, in all its best aspects. It is the standard of the modern nation-state, as established first in 15th-Century Italy, in the form of Renaissance; established with Louis XI's France, where the principle of the general welfare was the ruling principle of society. It was established in England under Henry VII, where the welfare of all of the people was the primary responsibility of society. That was the law. It was called agape⁻. It was called the principle of the general welfare.

Thus, the great advantage of European civilization, which, in every country, as in Mexico, great struggles were fought to bring this standard of government into being. That the government as a republic is responsible for the development of *all* of its people, and their future condition of life. This was the rise out of serfdom and slavery.

And that is in jeopardy today. What we've done today, is, we've said, "economy is all-important." Economy means, the cheapness of production, the cheapness of labor. Cutting this, cutting that: cutting health care, cutting education, cutting the improvement of land-areas—these kinds of things.

And so, we took a step backwards from 1968 on, back from the level of the modern European Renaissance. And that's what you're seeing in this issue about the border of Mexico and the United States. What you have, is you have people in the United States who are drawing forces from Mexico, to produce the agricultural goods and cheap labor for construction inside the United States.

What you see on the streets of the United States—you see everywhere people who are illegals, working for firms managed by illegals! And these firms are doing the work. They're building the houses, the cheap shacks that are about to come down. So, what we're doing, we're taking the population of Mexico, we're reducing the population that comes across the border to a lower standard of life than they had in Mexico because they see no future. We're using them up! We're not developing them; *we're using them up!* We're tending to criminalize them! Because, we don't realize that the law, is the law of the development of people. And we're losing the productive potential that we had once before.

To give an example of this: Back in the middle of the 1970s, I was one of the founders of an organization which had some 200,000 members, and which represented many of the general generation of scientists. We were working on various scientific questions, largely including nuclear power, fusion power, and so forth.

Most of those people with whom I was associated then, in the 1970s and 1980s are now dead. They have not been replaced. There's a shrinking number of people, a shrinking percentile of people, today, who have the competence they represented. And so therefore, not only have we lost in the condition of life, in the condition of the general welfare, we've also lost a scientific population which was formerly essential to our achievements. And therefore, we are not capable, presently, of the kind of scientific endeavors which we were capable of then. We've lost science. We've lost science and technology. We talk about it a lot, but we've lost it.

We have to rebuild it.

Our Challenge Today

So therefore, our challenge today, is to take the things that we can do, things we're capable of doing in the direction I indicated, largely based on this issue of water, power, transportation; treat that as basic infrastructural development, basic challenge of government, the proper area of government—large-scale mass transit; largescale power production; improvements in technology in general; and the fostering in the private sector of technological improvements, that's what we used to do. And this is our future. . . .

The full transcript of LaRouche's speech appears in Executive Intelligence Review, April 7, 2006, and online at: www.larouchepub.com/lar/2006/3314 monterrey_tec.html



Duesberg's AIDS Hoax

To the Editor:

We are all familiar with the attitude of the South African Prime Minister Mbeki, who does not believe that HIV causes AIDS. But after reading James P. Hogan's book, *Kicking the Sacred Cow*, it appears that he may be right.

Hogan says (page 308): "So, you've got all the symptoms of TB" [and presumably hepatitis, dysentery, malaria, pneumonia, Kaposi's sarcoma, one of the VDs, etc.] "and you test positive for HIV, you've got AIDS. But if you have a condition that's clinically indistinguishable and don't test positive for HIV, you've got TB" [Or one of the others].

Page 326: "Peter Duesberg believes that AZT and other 'antivirals' are responsible for over half the AIDS being reported today."

Page 322: "The unifying factor that makes all of 30-odd disparate indicator diseases 'AIDS' in the West is testing positive for antibodies claimed to be specific to HIV. But in Africa no such test is necessary."

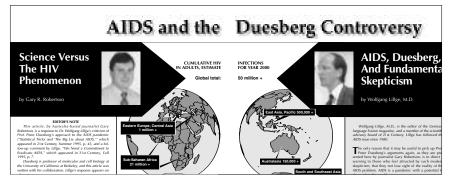
Page 328: "Duesberg has been accused of irresponsibility on the grounds that his views threaten confidence in public health-care programs based on HIV dogma.... Publication in the mainstream scientific literature was denied."

If the rampant diseases in Africa (and New Guinea to my near north) are due to poverty, bad water, starvation, ignorance, dysfunctional societies, etc., the cure is to overcome those problems, and not to provide free poisonous antivirals to already weakened people.

The treatment of Duesberg reminds me of Barry Fell's experience.

Maybe Hogan is just milking the subject for his own profit—but what if he's right? A lot of the other subjects he treats are also the same that *21st Century* has featured.

Henry Broadbent Somers, Victoria, Australia



Colin Lowry Replies

Duesberg's denial of the HIV virus as the disease agent responsible for AIDS rests on his ignoring thousands of experiments and clinical studies, while using pure sophistry to pick out incomplete "facts" to support his conclusion. We dealt with this in great detail in the Spring 1998 issue of *21st Century* ["AIDS and the Duesberg Controversy" by Wolfgang Lillge, M.D.] which I highly recommend that you read.

We now know a great deal about HIV and AIDS, and while the disease has ravaged Africa, it is also killing millions on every continent of the globe. Since HIV destroys the immune system, it is often the case that people infected with HIV die of some other disease that their bodies can no longer defeat in their weakened condition.

Tuberculosis is the number one killer of HIV-infected persons worldwide, but that doesn't mean that TB is the same as AIDS. There are many clinical tests relating to T-cell counts, dendritic cell counts, and cytokine profiles that can be tested for, besides the standard antibody test, when attempting to confirm if someone has AIDS or not.

Certainly, poor nutrition, lack of proper sanitation, and lack of medical care increase the death rate of any disease, including AIDS, and foster the conditions for emergence of new pandemic threats. We agree with you and Prime Minister Mbeki that these questions must be urgently addressed, and not swept under the rug. However, the treatment of HIV with anti-retroviral drugs, including the newer protease inhibitors, does increase survival time in most cases; but the drugs are far from perfect, and do have side effects. The denial of affordable anti-retroviral drugs to the Third World nations is certainly increasing the spread and deadliness of AIDS, and Duesberg's position is helping the very cartels he claims to oppose.

Whatever Prime Minister Mbeki may have said at one time, the South African government is now developing its own program for production of generic retroviral drugs, and is purchasing the drugs from India and other nations.

As for Duesberg himself, he was one of the eminent retroviral researchers in the 1970s, and was very familiar with the research around HIV in that period, so he certainly is not foolish enough to privately believe what he says publicly about HIV now. One has to wonder whether Duesberg is not part of a coverup operation. His arguments serve the purpose of justifying the benign neglect of the AIDS crisis which has been the de facto policy of the United States government since Reagan Administration Surgeon General C. Everett Koop stated that the cost of a crash medical and biophysics research program to deal with this global threat was too high.

Hydrogen in the Sun?

To the Editor:

I know you will get a lot of flak over page 78 [in the Summer 2005 issue, "Nuclear Chemist Oliver Manuel Challenges Theory of Solar Origin"] on "Iron in the Sun." Seems Manuel left out the most abundant element, hydrogen. He apparently ignores what are the parameters for the Sun. For quick rough comparisons, assume iron represents the heavier elements and the balance represents the lighter elements. The Sun's density is 1.41 gm/cm³. The density of iron is 7.9 grm/cm³. The ratio is then 1:5.6, or about 17.85 percent. The calculations are simple.

The end result is: All the heavier elements would occupy about 20 percent at the core, the remainder the balance of 80 percent (volume or mass). And since the average density is such, then that 80 percent must be about 95 percent hydrogen. If the exact values were known, the results would be more accurate, but are close enough. It sure as hell is not a thin surface layer of hydrogen as he claims.

> Bert Schreiber Bellaire, Texas

Oliver Manuel Replies

Your note on "Iron in the Sun" illustrates a common misconception: *The Sun's bulk density does* **not** *tell its composition.*

Bulk density also depends on (a) structure, and (b) temperature. An iron ship floating on water illustrates (a). Hot air balloons rising in air illustrate (b).

Leading astrophysicists understand that the Sun's average bulk density does not tell its internal structure and composition. Thus, Fred Hoyle himself suggested that the Sun's core might be rich in *iron-group metals* [*Astrophys. J.*, Vol. 197 (1975) L127-L131] and Clayton, Newman and Talbot suggested that there might be a *black hole* at the center of the Sun [*Astrophys. J.*, Vol. 201 (1975) 489-493].

Thank you, Bert, for giving me the opportunity to address this common misconception.

Oliver K. Manuel http://www.umr.edu/~om

Cosmic Humbuggery

To the Editor:

In your editorial "The ABC of Cosmic Humbuggery" (Fall 2003), you cite "a lack of epistemological rigor typical of nearly all modern cosmology." I so agree with the content of that phrase.

I'm amazed that so many people appear to be so completely bereft of the idea of using reasonable epistemological tests to evaluate the so-called knowledge that modern pseudo-scientists are generating by their so-called "scientific" activities. There is no other means to provide any sort of a quality index on such generated "pseudo-knowledge" and hence, it has become nearly impossible to differentiate the work product of any modern astrophysicist, or cosmologist or particle physicist from the work product of a clever pathological liar. *Continued on page 11* (31 MJ) per day for an average-size cow.⁴ If you extract 70 percent of the energy in the corn, that 70 percent isn't available to feed the cattle. Roughly speaking, if three bushels of corn are used to produce EtOH, the DDG that can be fed to cattle has as much energy as one bushel of corn fed directly. There is no free lunch, even for cattle.

Mike Brown reminds us "that ethanol isn't produced by using *other* ethanol. In the big distilleries, it's produced by using natural gas as a heat source. On the farm, it's produced by burning wood, corncobs, corn stover, and the like."

True enough, but farms simply don't have enough corncobs and the like to produce industrial quantities of EtOH. So it boils down to big distilleries that get the energy from natural gas. Oh.

Assuming (very optimistically, with Shapouri) that there is a net gain of 24 percent of energy in producing EtOH, it would require 23×10^{18} joules from natural gas to provide as much energy as we get from petroleum, and that would be added to our current consumption $(20.7 \times 10^{18} \text{ joules})$ of natural gas.

It would obviously be better to use nuclear energy, of course, but what about land use? To produce EtOH with as much energy as we use in transportation would require 1.1 billion acres (454 million hectares) devoted to high-yield corn production, complete with all the things environmentalists hate—fertilizer, irrigation, and pesticides. That's about 1.8 million square miles (4.6 million square kilometers), some 51 percent of the land area of the 50 states.

Howard Hayden, publisher and editor of The Energy Advocate, is Professor Emeritus of Physics at the University of Connecticut. This article is reprinted from The Energy Advocate (February 2006), P.O. Box 7595, Pueblo West, Colo. 81007. Notes

- P. Hallett, David J. Leak, Charles L. Liotta, Jonathan R. Mielenz, Richard Murphy, Richard Templer, Timothy Tschaplinski, "The Path Forward for Biofuels and Biomaterials," *Science*, Jan. 27, 2006, Vol. 311, No. 5760, pp. 484-489.
- 3. www.mikebrownsolutions.com/ethanol.htm
- Basal metabolism of cattle is given by 70kcal/day(m[kg])^{0.75}www.asft.ttu.edu/ansc 5001/TTVNCOURSE-Lecture4.doc

Letters

Continued from page 9 Thanks for an interesting article.

I had no idea that the Lyndon LaRouche movement was still viable and only ran across this article doing a google search to determine evidence of intense neutron fluxes that may have left evidence in meteorites.

> Charles Cagle Singularity Technologies, Inc. Salem, Ore.

Pre-Columbian Journeys Published in English

To the Editor:

In my book review of *La Cola del Dragon* in the Winter 2005-2006 issue of *21st Century,* I neglected to mention that large sections of the book by Paul Gallez had been published in English by Dr. Nito Verdera, who put online (http://www.cristobalcolondeibiza.com/) a treasure trove of materials regarding pre-Columbian contact between the "old" world and the "new."

For example, on the location of the mysterious land of "Punt," in the news again recently with the discovery of some well-preserved ships in caves in Egypt. Academia places it very close to Egypt, since they obsessively repeat the mantra that the Egyptians were not a seafaring nation. Verdera shows Gallez's hypothesis that the Land of Punt was in Peru, is at least as good as the rest of them, and then adds a few facts of his own:

• The first known voyage to this region is that organized by the pharaoh Sahure of the fifth dynasty (circa 2550 B.C.).

• The pharaoh Asa (Isesi) followed Sahure's example. Around 2400 B.C., he also sent out his fleets to the Land of Punt. One of the princesses of the sixth dynasty was placed in her tomb, ready for her journey to the Land of the Dead, wearing a lip coloring with an antimony base. The nearest place where antimony was mined is Madagascar, hardly around the corner.

• The Harris Papyrus, kept in the British Library, says that the pharaoh Ramses III sent an expedition of 10,000 men to Punt in 1180 B.C.

• Queen Hatshepsut (1501-1482 B.C.), whose deeds are engraved in the temple of Deir-el-Bahari, which she ordered to be built in Thebes to honor Amen-Ra, sent



One of the many illustrations from the website of Dr. Nito Verdera: A combination of a sundial and clock. The string is at the angle of your latitude, or co-latitude. If you know your direction, you can then tell the time (on both the vertical and horizontal surface); if you know the time, you can find your direction.

out an expedition made up of at least five large ships with 30 oarsmen in each of them. They sailed from somewhere on the Red Sea and were away for three years.

Egyptian scholars do not agree on the location of the Land of Punt. Some of them suggest Eritrea, others Somalia, Zimbabwe, Hadhramaut, or India. However, all these places are much too close to the Red Sea to justify the length of the voyage: three years according to all the relevant Egyptian records.

Gallez locates the Land of Punt in South America, probably, in the Puno region of Peru, on the shores of Lake Titicaca, which yields 70 percent of Peru's annual gold production, together with antimony, mercury, zinc, tin, and cobalt. Old gold and antimony mines can be found in the area, although archaeologists disagree as to their exact age. The boats used to sail on Lake Titicaca, made of cattail (a long-stemmed, reed-like, grassy plant of the Typhaceous family, with a cylindrical ear) are so similar to those used in ancient Egypt, that Thor Heyerdahl went to Puno to recruit workers to build his papyrus boat, Ra II, on the banks of the Nile.

Verdera points out, that as matters stand now, Gallez's theory is just as acceptable as any of the other sites suggested for the Land of Punt.

> Rick Sanders Leesburg, Va.

Alexander E. Farrell, Richard J. Plevin, Brian T. Turner, Andrew D. Jones, Michael O'Hare, Daniel M. Kammen, "Ethanol Can Contribute to Energy and Environmental Goals," *Science*, Jan. 27, 2006, Vol. 311, No. 5760, pp. 506-508. Thanks to Alex Weber of Taiwan for this reference.