

# A Timely Note

by Lyndon H. LaRouche, Jr. -

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Physical science runs in second place; Classical artistic composition, the science of the Classical imagination, came first. That is what Sky Shields demonstrated, in his just presented first piece, presented on the LPAC site "[Is the Past Fixed, Part 1](#)",<sup>1</sup> of a new series on the subject of the concept of "physical time," instead of the greatly over-rated notion of "simple-minded, and what have been rather irrelevant notions of clock time" on this account. The famous physicists and musicians Planck and Einstein, should have been pleased with the specific result now being introduced afresh under Sky's authorship.

As Sky argues there, his approach has been the most useful way for presenting, afresh, the argument I presented in my May 8, 2011 "When Governments Crumble,"<sup>2</sup> is best found in the set of preludes and fugues composed by Johann Sebastian Bach. Briefly: in the well-tempered system of composition, the source of the meaning of a musical note is to be located in the notes which precede a certain given one. "Time reversal"?

Sky has demonstrated, from the evidence supplied by Bach, the character of the physical principle for which I had argued in the description which I had given in "Crumble," and noted in "What Is Our Constitution."<sup>3</sup> The best real-life illustration of that same principle of "physical time" is to be located in the domain of a science of physical economy, my field of practice.

Sky will do "just fine" in his own continuing series of arguments for this case. My own, essential duty in this present report, is to show two things. First, exactly how the physical principle demonstrated by Bach is located in an applied physical science of physical economy. Second, how that same principle of physical economy encompasses all physical science, when the actual

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1. <http://www.larouchepac.com/node/18310>

2. *EIR*, May 20, 2011.

3. *EIR*, June 3, 2011.

conditions of a successful physical economic process are properly considered.

For this purpose, consider how net physical-economic progress actually “works.” Few economists, perhaps almost none, know how a modern national economy actually succeeds, or fails. Bach would readily understand the relevant argument, as would the composers Haydn, Mozart, Beethoven, et al.; at the least, they would recognize the principle, which is otherwise involved in economy, as having a precedent in modern Classical musical composition.

Both, the economies, and the Classical musical compositions performed according to a principled character comparable to that of Bach’s works, are, each, physically, integrated processes, rather than merely an aggregation. Living processes, similarly; they are processes which are to be measured, when considered as integrated processes, according to a concept of “development:” whether upwards, or downwards, or both combined, and to be describable in terms of a definable process. The process may be described in terms of both entropic and anti-entropic changes of state, concurrently.

## Man in the Universe

It is clear, so far, that the Earth is presently dominated by the human species, and that this has been the trend over the course of the several millions of years the presence of mankind is presently known to have been on this planet. Contrary to the hoax known as a “Second Law of Thermodynamics,” the history of life on Earth has been in a net upward direction, and, that has been the overall trend of human development for as long as our species has been estimated to have existed on this planet.

Such trends are the characteristic of our planet. That is to emphasize the evidence, that the behavior of life itself has been in such a trend over the hundreds of millions of estimated years of the trend of life on this planet. This correlates with strong evidence to the effect that the universe itself is to be recognized as being anti-entropic, when the ups and downs of the whole process are taken into account. More significant than that, is the special characteristic, unique to our species, of the manifestly willful character of the characteristically anti-entropic potential of human life.

So far, considering the fact that the Solar System is a junior figure within our galaxy, we have no evidence so far that there are not species comparable to our own on older planets within the galaxy, or elsewhere. Since

the record of life on Earth shows clearly that life on Earth is characteristically anti-entropic, and that the conscious powers which are the potential of mankind are within the expression of an evolutionary trend, we must say that we have no reasonable proof that species with something akin to human-like forms of willfully-driven creative potential should not have appeared somewhere in what appears to us to be this vast universe. If that were not so, we would be compelled to wonder, why not?

The aforesaid considerations taken into account, the following hypothesis is to be presented.

What we can know, is that Earth has become under increasing control of the progress of living species generally, and, lately, the human species’ anti-entropic trends of development. Moreover, this development of and by mankind is an increasingly dominant characteristic of not only life on Earth, but with respect to Earth itself. Or, to put the same point in a different way. Mankind’s upward development has emerged as the definition of life on Earth. Or, said otherwise, the Noösphere has emerged as the foreseeable being of our planet, its ontological characteristic.

This has implications which are of particular relevance to the subject-matter posed at the outset of this report:

Let us measure, hypothetically, the characteristic potential of the human species as a species. Let us measure that potential in terms of the physical-economic anti-entropic phase of a particular society, or a large part of the planet’s surface-areas, or of the planet as a whole. Observe such evidence in terms of the clearly manifest, anti-entropic characteristics of the evolution of societies in anti-entropic phases; observe the characteristics of a physical-economic process under such circumstances. The result is a normal characteristic of increase of net energy-flux density per capita and per square kilometer of territory, which is characteristic of any viable state of existence of the economy as a whole.

In other words, protracted zero-growth would be an adequate pre-condition for the probable extinction of the human species. The evidence is that a net increase in power, per capita and per square kilometer, is required to achieve the future effect of even a fixed standard of living of the human population. This is in accord with the net result of the biological evolution of the species over the period during which life has shown a significant role in the net value of the pattern. Life itself is inherently anti-entropic, and human life is the most

powerful in its capability for performance.

The case becomes much more interesting as soon as we examine the record over the span of the post-glacial interval.

This brings us to the matter of the theses on creativity which I presented in “Crumble.” I choose to emphasize globally extended modern North Trans-Atlantic society since A.D. 1401, the date of birth of Nicholas of Cusa, the principal founder of modern European science. Its particular significance for us here, is the dramatic character of the evidence presented as experience since the crucially significant discoveries of Filippo Brunelleschi and Nicholas of Cusa in shaping all of the commendable features of modern European-centered civilization since the calamitous Fourteenth-century “New Dark Age.”

*Focus on two most conspicuous factors of net physical-economic growth. Call this subject, “the principle of the enhancement of a semi-finished work, by means of a change induced in a preceding phase of the process.*

For example: the enhancement of the value of a net output, by a change in an earlier phase of the cycle.

### The Case of ‘Platforms’

The popular use of the term “infrastructure,” was neither wrong, nor entirely useless; nonetheless, it was never sound for purposes of scientific practice. A few years ago, I found myself pressed to abandon that term, and to replace its use with the notion of “platforms.” During the present year, I stated this view, and featured it, with a virtual sigh of sweet relief, from that point on.

The point is, that the relevant net effect associated with what had become the customary use of “infrastructure,” is that it was used to identify an expenditure, but was not a proper identification of the physical economic benefit to the economy at large.

On a number of occasions, I have referenced the complex of economic revolution under Charlemagne. These were typified, in chief, by his originality in defining a systematic form of a modern notion of national physical economy, and by the creation of a system of rivers and canals which was the first qualitative leap upward in inland economy. This notion of intertwined rivers and canals was, for example, typical of inland development of the territory which became the United States, as augmented by the higher technology of regional and later transcontinental railway systems. These measures of reform brought about leaps, which were

often revolutionary, in the net productivity of society, even by their own catalytic effects.

Similarly, such improvements which intervene in a preexisting economy are applied to an earlier stage in the productive process than the end-product, but, at the same time, act within an earlier stage in the process. Similarly, the collapse of modern railway systems have caused a collapse in the economic cycles as a whole.

That sort of example, while it does illustrate the relevant point somewhat broadly, does not yet do justice to the general, categorical principle involved. The principle were better typified by the case in which an end-product of the physical-economic chain of productive events applies the qualitative benefit of the new technology to bring about the cause of that net benefit at an earlier stage of the productive chain of events. Thus, capital is expended at the expense of a later phase in the process, to increase the net productivity of the economy at an earlier stage of the productive-consumption process.

Sky’s reference to Bach’s principle of composition, is to be recognized as a correlative of the example I have illustrated above.

## The Extended Sensorium

The LaRouche Basement Team explores the extended powers of sense-perception, beyond the limits of the five ordinary senses. This provocative report, commissioned by Lyndon LaRouche, was featured in EIR, Feb. 4, 2011:

- **Synesthesia: Beyond the Five Senses**
- **Helen Keller: Mind over Instrumentation**
- **Following the Beat of a Different Drummer**
- **Polarization Sensitivity: A Strong and Weak Sense**
- **What is Polarized Light?**
- **Insects and Infrared**
- **Magnetoreception**
- **Unheard Melodies: Electric and Magnetic Senses in Humans**
- **The Sounds of a Cosmic Chorus**