

ENERGY: SOMETHING FROM NOTHING - A ZERO POINT PRIMER

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We generally think of space as being empty, that is, having no structure whatsoever, being void, pure, and simple. Space is usually considered to be the background upon which or within which form and structure appear. Space is seen as the place within which matter sits, at least that is the concept. However, recent developments in zero point physics, or free energy, is proving that concept of space to not only be wrong, but one that is blinding humanity to some very real solutions to the global ecological crisis.

The emerging paradigm of zero point energy (and it is a paradigm, since acknowledgement of its existence will necessarily require a reinterpretation of the nature of our world) is that the vacuum of space is not empty. Rather than a vacuum, space is more like a plenum - an absolute fullness of energetic potentiality that is somehow in a state of balance or equilibrium, such that this enormous potentiality is prevented from manifesting and thus appears as emptiness, void or vacuum. It is as if every point of empty space is a place where nearly infinite energies are converging from all directions simultaneously in such a way that all this energy cancels itself out and appears as emptiness or void.

If, however, at any point there is an imbalance or asymmetry in this omnidirectional canceling of energies, there appears a disturbance or a ripple that is commonly known as matter, the entire zoo of nuclear physics plus electrons and even photons are simply differing modes of asymmetry of the zero point field of the vacuum with itself.

The amount of potential energy contained within the fabric of space has been independently calculated by numerous physicists to be somewhere around the nearly inconceivably high figure of <10 to the 115^{th} power grams/cubic centimeter. This means that within a single cubic centimeter of vacuum there is an amount of energy potentially present but in a state of balance or self cancellation equivalent to the energy contained within 10^{115} grams of matter.

Ere many generations pass,
our machinery will be driven by a power obtainable at any point in the universe. This idea is not novel... We find it in the delightful myth of Antheus, who derives power from the earth; we find it among the subtle speculations of one of your splendid mathematicians... So astounding are the facts in this connection, that it would seem as though the Creator, himself had electrically designed this planet...

NIKOLA TESLA,
ELECTRICAL WORLD AND
ENGINEER, JANUARY 7,
1905

<115 zeros after the 1>. This is a number that is greater than the estimated number of atoms in the visible universe.

It is a figure that exceeds the estimated amount of energy present in the known or visible universe which includes all the energy being liberated by tens to hundreds of billions of galaxies all ablaze with millions of stars. This amount of energy is literally inconceivable by the human imagination. With this amount of energy potentially present in every cubic centimeter of vacuum, it becomes utterly ludicrous to speak of an "energy shortage" as is so often done in today's political and economic spheres. The paradigm of the zero point energy potential of the vacuum of space literally disallows scarcity from being considered to be real, that is, if we can find a way to tap into this sea of energy potential and extract some of it to do work. This is the big issue at hand and the outcome of this issue has enormous ramifications for the future existence of the human species and for that of all life on Earth.

It is safe to say that the understanding of zero point vacuum fluctuation physics is one of the more important steps that has ever occurred in the history of science. It has the potential to utterly change our view of the nature of things and may have technological ramifications that can allow us to really clean up the planet and stop destroying the biosphere in the greedy, shortsighted way that is currently going on at an ever accelerating rate. And accomplishing this miracle will set us on the road to an even greater miracle -- a fundamental shift in consciousness that can liberate humanity's imagination to the same unimaginable degree that zero point physics can liberate the energy in so-called empty space.

Zero point physics is also in profound accord with the sacred world views of nearly all spiritual traditions. It shows that everything is inseparably one, that all that manifests is arising within the same unified ocean of being. There are no separations. All of humanity and in fact the entire universe is one coherent body arising mysteriously out of the infinite source that some call God or The Great Spirit. It demonstrates and scientifically validates the spiritual verity that we have boundless resourcefulness within ourselves, within the spirit that lives in us and all things, and we can learn to draw upon that infinite reservoir of strength, resourcefulness, and yes, Love.

The Zero point paradigm provides a scientifically supported model of human potential as being literally infinite and totally open ended, something that great awakened beings have been telling us throughout the ages. This new paradigm helps us get a glimpse through the thoroughly scientific and rational approach to the staggering boundless creative potential and open-ended dynamics of the Universal Mind, of which we are all living creative expressions and with which we are all one.

"Thus he then classified living creatures into genera and species, and divided them in every way until he came to their elements, which he called the five shapes and bodies - *aether*, fire, water, earth and air."

XENOCRATES, ON THE LIFE OF PLATO