

## “Quantum Fields” and beyond: Paradigm Shift Now: 2014

We have seen that vector potential, although not considered in classical electromagnetics, was indeed in Maxwell’s original theory. Do other forms of electromagnetism fail to conform to classical (four equation) Maxwellian electromagnetic theory?

Glen Rein has noted that mobius and caduceus electrical coils, which result in a canceling of the electromagnetic field, result in local anomalies with respect to energy, temperature, inertia, mass and gravity measurements. <sup>1</sup> He notes the first application of self canceling coils was by Nikola Tesla, whose magnifying transmitter used two spiral coils where the oscillations were phased to generate opposing EM fields. <sup>2</sup> Tesla demonstrated that such coils could transmit energy over long distances without losses. <sup>3</sup> Tesla used the term non-Hertzian to describe this new energy field because it did not behave according to standard Maxwellian EM theory.

Rein showed that water treated with a variety of self canceling coils shows altered absorption of UV light. (Rein 1992). A bifilar coil, using more simplified geometric windings, was used to determine the relative roles of quantum, vector potential, (A), and EM (B) fields. William Tiller of Stanford provided calculations for the strength of the magnetic (B) and vector potential (A) fields. Both were found to be very small. 10-12 for B and 10-14 for A. the primary field present then, was the quantum field; that is, whatever is left after classical magnetic and potential fields are subtracted out. In spite of this, this bifilar coil produced a small increase in UV absorption, and from this Rein concludes that [quantum fields exist, are distinct from B \(EM\) and A \(potential\) fields, and are able to induce a measurable macroscopic effect on water.](#) <sup>4</sup> The idea of quantum potential was introduced by Bohm in conjunction with Schrodinger’s wave equation. <sup>5</sup>

Rein believes that potential fields may be considered a bridge between quantum and EM fields.

Quantum fields are similar to those described in quantum field theory, and by David Bohm’s “subtle information fields”.

### Active Information

The breakthrough in giving information a more "physical" role comes with Bohm's proposal that information plays an active role in quantum systems. Bohm's 1952 Hidden Variable papers proposed an alternative approach to quantum theory in which the electron is a real particle guided by a new kind of force, the quantum potential.

Unlike all other potentials in physics its effects do not depend upon the strength or "size" of the potential but only on its **form**.

The form of the quantum potential is extremely complex and reflects the entire physical set-up of a quantum measurement. The complexity of its form is also what gives rise to the apparently random processes of the quantum world, such as the disintegration of a radio-active nucleus, or the dual wave-particle nature of the electron.

Bohm's approach to his own theory became more subtle over the years and he soon began to speak of not only the form of the quantum potential and also of the "information" it contains. The action of the quantum potential is not to push or pull the electron along its path. Rather, Bohm likened it to a radar signal that guides a ship approaching a harbor.

Newtonian physics was concerned with the movements of **matter** under forces and mechanical contact. Nineteenth century physics generalized the whole notion of **energy**, as that which causes

the transformations, rearrangements and motions of matter. I suggest that **Information** is the final element in a triad - information is that which gives form to energy. (It is the "subtle" energy spoken of in Eastern science.) Information would have an objective nature. It would play an active role in giving "form" to energy and be responsible for quantum processes. As a "field" of active information it provided a collective, global form for a superconductor or superfluid. Information would be copresent as an aspect of physical law, but also through what appear to be more subjective elements such as meaning and significance. <sup>6</sup>

Classical EM fields exist at the level of Bohm's explicate order, which has imbedded within it the potential field, which in turn has imbedded within it the quantum field. According to Bohm the implicate order is composed of a series of levels, each imbedded within the next, where each level is increasingly more subtle and fundamental. If one adds to this model the quantum physics of hyperspace, eventually a subtle level will be reached which is higher dimensional. These could correspond to the multiple subtle energy levels of the human chakra system; etheric, astral, etc.

Rein assumes the quantum field exists in this higher dimensional level, and proposes that healing information originates at the most fundamental level in the implicate order, that of spirit.

Using an electrical coil, William Hooper claimed to have identified some fundamental qualitative differences between types of electric fields distinguished by their origin. He patented a "motional electromagnetic field" which has allegedly been shown to be unshieldable. <sup>7</sup>

Lightning as well as the aurora and ionosphere form plasmas, <sup>8</sup> and plasma waves such as the aurora in the earth's magnetosphere may under certain circumstances be longitudinal. <sup>9</sup> It has also been suggested that the earth's core may be plasma like. <sup>10</sup>

Dr. William Tiller finds that human consciousness can generate a physical space "conditioned" by subtle energy, that this subtle energy is related to the magnetic vector potential of classical electrodynamics, and that this subtle energy may result in psi phenomena. The conditioned space effects material properties globally, throughout the room, resulting in oscillations in air and water temperature, pH, and electrical conductivity of water. All exhibit the same Fourier spectral components and are in the frequency range from 10<sup>-2</sup> to 10<sup>-3</sup> hz. <sup>11</sup> This supports Rein's observations of anomalies in physical properties associated with certain coils.

Ken Wilber sees the quantum vacuum as prana, which gives rise to matter. He believes David Bohm's concept of a single implicate and single explicate order was too simplistic. For Wilber Prana is implicate to gross matter; etheric is implicate to prana; astral is implicate to etheric, etc. According to Wilber, Bohm later added several epicycle orders to his theory, including "super-implicate" and "beyond super-implicate" orders, supposedly all based on physics. <sup>12</sup> He also believes that the etheric, astral, and psychic fields are part of the manifest realm, as is the quantum vacuum (prana) and so they are the proper object of study of science (as "subtle energies"). <sup>13</sup>

Bohm's implicate-explicate order somewhat corresponds to a spectrum of subtle energies, though for Wilber Prana is implicate to matter while for Rein, potential fields are implicate to the explicate electromagnetic field, in a nested series of "subtle energies."

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<sup>1</sup> Glen Rein :Aspden, 1991

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<sup>2</sup> Glen Rein (Sector, 1916).

<sup>3</sup> Glen Rein (Tesla, 1904).

<sup>4</sup> Glen Rein

<sup>5</sup> Glen Rein: Bohm (1975)

<sup>6</sup> <http://www.f davidpeat.com/bibliography/essays/fzmean.htm>

**active information, meaning, and form**

<sup>7</sup> <http://www.tfcbooks.com/mall/more/566-mef.htm>

Hooper also proposed that self canceling EM coils can cause a weight change of objects placed underneath . effects due to “motional field” NASA study shows no weight change:

[http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19950022472\\_1995122472.pdf](http://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19950022472_1995122472.pdf)

**Hooper: "Equivalence of the Gravitational **Field** and a **Motional field****

<http://www.rexresearch.com/hooper/horizon.htm>

<sup>8</sup> <http://www.plasma-universe.com/Plasma-Universe.com>;

<http://www.springerlink.com/content/17072q3w5615583g/>

<sup>9</sup> [http://en.wikipedia.org/wiki/Longitudinal\\_wave](http://en.wikipedia.org/wiki/Longitudinal_wave)

<sup>10</sup> <http://www.wincom.net/earthexp/n/owen.htm>

<sup>11</sup> Some Science Adventures in Real Magic by William Tiller, Walter E. Dibble, and J. Gregory Fandel

<sup>12</sup> For this reason Wilber believes that Bohm professed a colossally reductionistic game that reduced the levels of biology and psychology to hidden variables in his theory of the quantum mechanics of gross matter-energy.

<sup>13</sup> **Ken Wilber** believes that the scientific community which has associated the quantum world and the quantum vacuum with consciousness and spiritual potentiality and are incorrect, because the quantum world and quantum vacuum have physical properties (The vacuum has energy density). “Unfortunately, the physicists who started equating quantum realities with the Tao were simply ill-versed in the philosophical subtleties of the great traditions. Oddly, the original and pioneering physicists themselves—from Schroedinger to Planck to Einstein—refused to make that confusion—refused, that is, to identify the findings of quantum or relativistic physics with any sort of spiritual reality”. Based on the traditional wisdom of many cultures he subscribes to the two truths doctrine, which states that there exists absolute or nondual truth, and relative or conventional (ie scientific) truth, and they are of radically different orders.

<http://wilber.shambhala.com/html/books/kosmos/excerptG/part2.cfm>