

ABSTRACT

Foundations of Aetherometric Biophysics, Vol. II

Human Experimental Bioenergetics

The Passive Bioelectric Meter (BEM) and its application to detect and measure distinct ambipolar and electron-plasma bioelectricities in human beings, followed by their integral system bioenergetics

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In this book, Vol. II of the Foundations of Aetherometric Biophysics, the Correas detail their experimental and theoretical studies of the bioelectricity of the human body, made possible by application of the novel bioelectric meter (BEM) that they have designed and built.

The BEM is an exquisitely sensitive, entirely passive field- and contact-metering detector for the determination of the velocity (speed and direction), energy and power of electric currents, both ambipolar (radiative) and monopolar (bioplasma and electrostatic), from living bodies. It detects and measures emissions and currents for bodies either in contact with, or in varying proximity to, different meter probes; and it performs according to the aetherometric electric functions the Correas have identified and previously reported on, in particular for ambipolar radiant electricity and for electron bioplasmas kineticized by absorption of ambipolar energy.

Most prominent among the results are the experimental confirmation of the potential aetherometrically predicted 15 years ago for the ambipolar (electric) energy field of a typical human body, and the discovery and measurement of the associated electron bioplasma in its native state, including its resonant capacito-inductive frequency. The BEM has permitted rigorous investigation of very distinct electric actions of the human body, many of them previously unknown or never studied - such as:

1) the detection and measurement of the antero-posterior, dorso-ventral, bilateral and proximo-distal gradients of the electron bioplasma that rides on, and rectifies the action of, the radiative ambipolar emission;

2) the isolation of distinct ambipolar auras emitted by the human body (ambipolar exhalpy) and the identification of the electric processes responsible for these emissions: (a) a proximal (within 60 cm from the body) polarity-alternating aura that is projected from within the body; (b) a far-reaching polarity-constant aura associated with the motion of the body; and (c) a far-reaching polarity-constant aura emitted by the stationary body;

3) the discovery of a distal "draw" effect of the human body that negatively interferes with the propagation of AC and RF signals, and is the result of superimposition of these signals with the far-reaching polarity-constant ambipolar aura emitted by the stationary body;

4) a demonstration that thermal exhalpy by IR photon production correlates with the variations in bioplasma potential, (virtual) temperature, energy and power (or current);

5) the identification of the real biophysical electric process whereby transmissions from AC power lines, RF transmitters or microwave towers, etc, affect the human body.

The authors further propose that biological ion-electricity is a mere derivative of the bioplasma currents - as they demonstrate the real action potentials, bioambipolar and bioplasmic, involved in limb motion.

All these biological processes are shown to be strictly electrical, casting doubt on any claims of a fundamental biological role of electromagnetic fields, even those that pertain to current models of Quantum Biology. The Correas formally demonstrate - with photo-responsive variants of the BEM - that whatever transmits the 60 Hz AC signal is not an "electromagnetic" 60 Hz photon, but an emission of ambipolar radiation that carries that signal. They propose a novel analytical and physical model for the emission of ambipolar radiation by cooperative electron-electron interactions that are ordered magnetically, and apply this model both to the energy transmission from microwave towers or power lines, and to the emission of polarity-constant ambipolar auras from the skin bioplasma. They formally demonstrate how all signals, whether electric - AC or DC - or electromagnetic, are transmitted ambipolarly.

The findings detailed in this report confirm the Correas' earlier proposal (in "Nanometric Functions of Bioenergy", Vol. I of the Foundations of Aetherometric Biophysics) that the normal temperature of human beings (37°C) reflects modal photon production (thermal exhalpy) from leptonic charges in the bioplasma that are driven by a modal ambipolar emission with a 512.79 V potential. This leads to the suggestion that the main IR emission from the surface of the body peaks at 47 μm of wavelength, not 9 μm as is currently and erroneously accepted. Eventually, the Correas find a way to measure the human bioplasma with an electroscope, and succeed in extending the method to measure a geoplasma in the Earth's crust. While Russian and Israeli physicists failed in providing a physical basis for the concept of a bioplasma, the Correas identify the bilaminar structures of these STP plasmas in semi-aqueous phases, and provide hard evidence for their deep storage in conductors. This is further addressed in an Appendix which discusses the basic inability of quantum mechanics and radiation theories to understand the temperature of electron gases in metals, and the existence of deep plasma wells.

The concluding chapter integrates and reviews most of the findings. It then moves on to present the aetherometric model of the electric functions of the heart and the nervous system in generating, maintaining and integrating the bio-ambipolar and bioplasma fluxes. With a low-impedance BEM-analyzer that records simultaneous channels for any grouping of three different ambipolar frequencies (e.g. in the delta, theta, and alpha or beta bands), the Correas bring forth evidence that suggests how delta waves may play the role of an ambipolar master clock (AMC) - both in the synchronization of the brain and

the autonomic nervous system, and in the vagotonic control of the cardiac pulse rate. Following a fine analysis of the PQRST wave complex, the authors identify the cardiac ambipolar frequencies that are autonomously generated by the pacemaker cells in the two cardiac nodes.

Neural centers located mid-sagittally in the brain and in the sacral cord appear to be the originators of the delta wave AMC. Synchronous but countervailing emissions from these two bioelectric neural sources - together with the autonomous cardiac emissions they modulate - order the antero-posterior gradients of the body, and identify the superimposition of a major and a minor component. The antero-posterior flow of the bioplasma is split bilaterally by the sagittal plane, presenting non-symmetric magnitudes for voltage, temperature and power, with all normal values resulting from bilateral integration. While the BEM-analyzer can be employed to study EEG emissions, including their whole-body propagation, it can also be used to detect the so-called atmospheric Schumann frequencies - which the Correas demonstrate in a Faraday cage environment to be ambipolar in nature and equally present in the Earth's crust (the electrical ground). They also show how the main Schumann frequency does not fill the master clock function - contrary to popular misconceptions.

The antero-posterior gradient is found to be transversely criss-crossed by stacked dorso-ventral bioplasma currents that are ordered in autonomic plexuses and seamlessly regulated in five distinct body segments (cranial, cephalic, brachyal-thoracic, lumbar and sacral). Each segment develops - at the skin and mediastinally - its own polarity-constant standing gradient that is autonomically maintained, and can be manipulated (as the Correas demonstrate) by hot and cold treatments, the latter including the Wim Hof-method of oxygenation, which they test with very positive results. The authors also map the more complex variation of polarity and direction for the proximo-distal axes of each segment; these axes appear to be the most labile of all gradients, as they can be readily induced to invert, symmetrically or not, their polarity. Rather unexpectedly, the Correas succeed in manipulating these proximo-distal gradients to open up a whole new field of "electrostatic" and biomagnetic effects that have heretofore gone undetected. Biomagnetically, they identify the preferred vortical structure of the bioplasma flux in the upper limbs, and suggest that flux-blockages or knots have a magnet-crystal structure that bars the natural bioplasma flow.

The book then embarks on a totally novel examination of the Chinese school of medical acupuncture. The meridian structure of the body is analyzed in detail and, based on the totally passive measurements made with the BEM, a new diagram of the bioplasma flow - along meridians and between them - emerges. The nature of acupoints and Ch'i conduits is identified, along with the aetherometric proposal that they locate in the interstitium. The complex relation between the meridians and the dorso-ventral axes leads to a re-evaluation of their relation with the autonomic nervous system, including the function of the orgasm that is sourced in the sacral cord.

The approaches developed in this work radically alter the scientific systematization of the bioenergetics of the human body - which, as the Correas demonstrate, is fundamentally an electric bioenergetics ultimately driven by the somatic capture of ambipolar energy and enzymatic emulation of ambipolar emission, as coordinatized by the three vegetative centers (sacral cord, diencephalon and heart). The systematic and comprehensive

investigation encompasses consideration of all the other energy components of the human biological system. Whether in the bioelectric centers or in the soma proper, the ambipolar energy field and consequent bioplasma mobilization is emitted from mitochondria and perinuclear cisternae. The Correias identify the biophysical and biochemical processes that restore or re-energize the bioplasma, and propose that calcium phosphite plays the fundamental role of providing free electrons. They give account of the gravitational energy components in the human body - how they affect shape and surface tension, and how gravity is counteracted by a portion of the bioplasma work; furthermore, they examine the latent heat of the biochemical constructs that form the body, and propose a new theory of buoyancy based on the relative massfree energy densities between a body and the surrounding medium. This integrative aetherometric investigation then returns to the problem of how heat is generated by biological open systems. By considering biochemical generation of heat to be merely a recursive and subsidiary function, the Correias find that the main production of biological heat is electromagnetic, and generated, it too, by only a portion of the total bioplasma work.

There is, therefore, no electromagnetic bioenergetics per se to the human biological system, only an electric bioenergetics. All other energy manifestations present within the body are mere conversions of the bioplasma's electrokinetic energy. The thermal exhalpy is normally electromagnetic - not the result of a thermokinetic work or biochemical reactions, but rather the result of the electrokinetic work of the bioplasma. It follows that there is no possible application of any of the concepts of an actual, thermal entropy to open biological systems - at best, only to that part of the system's exhalpy that is thermal. All other entropy functions can only be virtual in open systems. Order and entropy do not define opposite tendencies, since order depends on the growth of the internal energy function of a system, and if the system is an open one, the internal energy cannot increase without an increase in its virtual entropy

Taken together, these discoveries suggest that the body has at least one double, an ordered massbound bioplasma that is driven by ambipolar energy. And since the ultimate foundation of this bioplasmaic order is an ambipolar energy field, it seems that it is this massfree field which, in the process of development of each human being, becomes ordered and fasciculated as the real double of the body. The post-birth appearance of putative delta emitters in the frontal and cortical regions of the brain may be already indicative of a bio-ambipolar order that expands with development. And maybe, also, that is the meaning of "making oneself a soul". For we may all be born with the ambipolar seed of a massfree "double"; but a soul, like a body, is a matter of development and order. Which is to say, a matter of energy, or better, of an economy of massfree energy - one that maximizes and orders the internal energy of a system, and minimizes its total exhalpy. The cosmos can only conserve its energy, but living beings can increase and order their energy - though at a cost: after all, there is at least one absolute certainty in existence: all that lives, dies sometime. But death may not be the end, and the task of existence may well lie in the "eternal dream" of the "cosmic butterfly": how life may yield to the metamorphosis of an ambipolar massfree being. At this point of the book, aetherometric science meets ethics. The book ends by charting exactly how such a transformation may come about, energetically and cosmically. Upon departing, it leaves each reader with that challenge: how to make oneself a soul.