

## Comments on "Quantitative Analysis of Reproducible Changes in High-Voltage Electrophotography" by Russo et al.

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These authors have attempted to investigate the existence of electromagnetic fields associated with biological systems using newly available image analysis techniques to analyze Kirlian photographs of a fingertip produced under controlled conditions. They found a correlation between change in the electromagnetic emission from the body and the conscious desire of five energy practitioners to change their energy state. Five controls were unable to reproduce statistically significant changes.

The middle finger was selected for measurement based on conversations with practitioners stating that the intensity of the energy emitted from the middle finger is greater than the other digits in the hand. It has long been suggested that the acupuncture meridian activity is one factor that shows up in a Kirlian image. The tip of the middle finger is, of course, the end of the pericardium (Pe) acupuncture meridian, which with the liver meridian makes up the Jue-Yin axis (Stux and Pomeranz, 1991). The pericardium meridian has a strong effect on the circulation and is associated with mental, psychosomatic, and gastrointestinal disorders; with the heart, which it protects and regulates, it is associated with the brain and mental functions. The Ting electroacupuncture points on the middle finger are circulation (Ci9) and allergy (AD1) although these might not have shown up in these experiments because

the finger was held vertically relative to the photographic emulsion.

The electrophotographic (Kirlian) apparatus was excited with a unipolar square-wave of approximately 20 kV at 7 kHz  $\pm$  350 Hz. Excitation is a dark process. Light comes from relaxation and recombination of excited and ionized molecules of gas or vapor surrounding the fingertip. In the case of moist air, there are innumerable possible pathways, some radiative others nonradiative, whereby the ground states of the molecules can be regained; contamination with body chemicals should further increase the number of possible pathways. Any emitted radiation will be characteristic of the energy gaps involved in all these processes.

The electromagnetic fields that the authors set out to investigate may not be the electromagnetic fields of classic physics, but quantum fields. In cosmology-origins of life research and computer systems-anticipation, intelligence and consciousness research-serious workers now regard living systems and bio information only as quantum and holographic. I have presented evidence in support of the assertion that living systems are macroscopic quantum systems (Smith, 1998).

In notes written for a symposium in Dallas in 2000 (unpublished observations)\*, I gave tables -of the endogenous frequencies measured on the body chakras and acupuncture meridians.

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\*Smith CW. 18th Annual Symposium on Man and His Environment, June 8-11, 2000, Dallas, Texas. Symposium Notes for Presentations: "The Diagnosis and Therapy of EM Hypersensitivity" and "EM Fields in Health, in Therapies and Disease."

Typical endogenous frequencies on the pericardium meridian are 0.25 Hz and 13.4 MHz. The lower being the frequency corresponding to propagation at the velocity of coherence (metres per second) the upper being propagation at the velocity of light. Coherence diffuses like heat along the handle of a saucepan, except that it is order whereas heat is disorder. Only a single wire is necessary, as it is with electroacupuncture apparatus. Within a coherent system, the constant parameter becomes the coherence length that is equivalent to a wavelength; frequency then becomes proportional to velocity, and there can be many velocities and corresponding frequencies all mutually interacting over widely different parts of the spectrum.

The above Kirlian apparatus was run at 7 kHz  $\pm$  350 Hz. This frequency should not entrain the pericardium meridian, but it might entrain the Triple-Warmer (TW1) (Sanjiao) meridian, which has one endogenous frequency at 6 kHz and finishes on the next (fourth) finger.

The energy practitioners participating in the above experiments considered that one minute was sufficient time to alternate between a relaxed "OFF" state and a healing energy "ON" state. In order to check this, I measured my endogenous frequency at acupuncture point Peg, then turned "ON" healing energy for 1 minute and re-measured. I then relaxed for 1 minute and re-measured. Again, I concentrated on healing and on trying to push the frequency of the pericardium meridian from its 0.25 Hz up to the 7.8 Hz of the heart chakra and heart meridian (He9). Not only is 7.8 Hz a generally healing frequency but also one that has unusual effects on water.

The measurement technique I used was as follows (Smith and Endler, 1994). I took a glass pipette containing water that had been "erased" from any previous frequency imprints (such as the power supply frequency) by placing briefly within a closed steel box to remove the geomagnetic field. The geomagnetic field is essential for the maintenance of frequency imprints and homoeopathic potencies. I placed it so the water was in contact with acupuncture point Peg and moved my hand and the pipette close to a strong permanent magnet to imprint its frequency into the water. I then measured the frequency in that water.

This was done by placing the water sample between the hands and arms in the field of a coil or toroid connected to a frequency generator. One hand was used to tune the frequency generator, and when a resonance frequency in the water was reached, a pendulum held in the other hand indicated unbalance as a change in muscle tremor. The reading on the frequency generator was then noted. Although this is a subjective method, it is practical and so far only a method using human sensitivity can cover the clinically essential frequency range from below millihertz to above gigahertz. Available objective methods for measuring frequencies in imprinted water include electrodes connected to an amplifier (Smith and Endler, 1994), heats of mixing (Elia and Niccoli, 1999), quantum entanglement in a two-beam laser (Prangishvili et al., 2000).

## RESULTS OF SELF-TEST

1. Initial endogenous frequency on Pe90.2542 Hz
2. Frequency on Peg after concentrating, # on healing for 1 minute6.732 Hz
3. Frequency on Peg after relaxing for 1 minute 0.2012 Hz
4. Frequency on Peg after concentrating on healing for 1 minute 7.575 Hz
5. Frequency on Peg after relaxing for 1 minute 0.2762 Hz

This shows that it was possible for the energy practitioners in the above experiment to

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have changed the frequencies on their Peg acupuncture points under the conditions and time available to them. This acupuncture point may well have been what was being photographed. What remains to be shown is whether a body frequency around 7.8 Hz (or some other frequency) will give the characteristic blue-violet coloration observed in their Kirlian images. To do this, it would be necessary to inject an appropriate coherence signal into a fingel or a "phantom" as a calibration. It need not be a classic electromagnetic field frequency because a frequency of the magnetic vector potential can enter into the wave function as a chemical potential and change recombination pathways. The subject might hold a glass tube of frequency imprinted water (Smith and Endler, 1994) in the hand while making the Kirlian image. Although, there are ways to get a tuneable coherence signal out of a signal generator, the presence of 20 kV from the Kirlian apparatus means that considerable electronics "knowhow" would be needed to avoid its permanent damage.

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