

# “OCCULT” INFLUENCES IN HEALTH AND DISEASE

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**T**HE word occult is defined by Webster’s as “hidden from view,” i.e., not readily discernible by sight, sound, taste, smell, or any other physical senses. While many factors arising from our industrial and urban society have been proved to exert a profound effect on our health and well-being, some lesser-known, physically un-detectable influences still go unreported in even the most sophisticated investigations. These could be termed “occult” influences.

Many of the causes of disease that are now understood were at one time “occult.” Before van Leeuwenhoek invented a simple form of today’s microscope, germs, bacteria, and protozoa were all unknown, invisible to the eye of the observer and therefore, by the most rigid possible definition, occult or hidden from view. Before instrumentation improved, when Pasteur was using his microscope to investigate mysterious factors affecting the wine industry in France, the entire field of bacteriology, microbiology, and immunology remained invisible.

There are countless other examples of previously hidden influences that turned out to have effects on health and well-being. Radiation (ionizing radiation) was undetected and invisible until photographic plates were developed, and, later, Geiger-Müller tubes, ion chambers, and scintillometers were perfected.

Until this generation, magnetometers did not exist that would detect microgauss-level signals, which have recently been established to be physiologically significant. Therefore, the presence of many environmental influences such as alterations of mood at the time of the full moon remained in the realm of “occultism.” Schumann resonance frequencies are altered by solar and planetary influences, as ocean tides are affected by lunar position.

Many highly controversial disciplines, such as healing and dowsing, continue to work in the physical universe, in spite of the theories of the “experts.”

History will someday show that human beings, and perhaps all life-forms on the planet, are extremely sensitive bio-cosmic resonators and are physically affected by very subtle energies, including magnetic and electrical fields, which, like bacteria, were originally “occult” and impossible to measure or even detect.

**M**ANY studies have examined in depth the possible health hazards of chemical residues, such as those arising from insecticides, solvents, formaldehydes, ozone, phenols, mercury compounds, lead, asbestos, urethane insulation; and from the production of carbon monoxide. In a number of cases, standards for permissible levels are set by industrial health codes. This brief communication, however, is in-tended to give an overview of lesser-known factors in the electromagnetic, electrostatic, and acoustical domains that generally remain undetected (and unreported), which have been overlooked by environmental health professionals. Many of these factors are psychoactive.

In addition, very inexpensive detection devices (typically costing from \$50 or less to \$100 to construct) will be suggested, which can easily and reliably detect, trace, and quantitatively measure such psychoactive factors.

### Time-Varying Electrostatic Fields

**H**AMER has proven conclusively that low-frequency E-vector fields (as opposed to B-vector or magnetic fields) in the neighborhood of 3 to 5 Hz can significantly lengthen human and animal reaction times and cause subjective feelings of apprehension, anxiety, and distress.<sup>1, 2, 3</sup> These fields, artificially generated with very low voltage gradients on the order of 2 V/m, were tested during Hamer's tenure at U.C.L.A.'s Brain Research Institute.

Such fields can be produced in electrostatic-prone environments by movements of dielectric surfaces, corona (brush) discharge from high-voltage power supplies such as are generated in all electrostatic (Xerox-type) office copiers, movement of personnel across nonconductive surfaces such as floors or rugs, and in many other familiar environmental conditions.

In the electronics fabrication industry, electrostatic fields are carefully monitored and controlled to avoid component degradation from exposure to these minute charges, which can cause "punch-through" by arcing in CMOS and FET solid-state devices. Electrostatic field contamination is practically ignored in homes, offices, or automobiles, however, unless it causes mild electrical shocks, such as may be experienced on a dry day after walking across a carpet or removing clothing not treated with an antistatic.

If the resultant fields are of positive electrical sign, the psychophysical effects are compounded, because of the tendency of charged surfaces to strip negative ions from the breathable atmosphere.

### Negative-Ion Concentrations

**A**VAST literature exists on both tested and apocryphal effects of negative- and positive-ion concentrations on human and animal behavior. Ideally, a ratio of 5 parts of negative ions to 4 parts of positive will provide optimal working conditions.

König<sup>4, 5</sup> has shown the relationships of some neurohormones, such as serotonin, to negative-ion concentrations in the atmosphere. Ciliary activity is enhanced in the presence of negative ions. Briefly, positive ions can produce symptoms of nausea, dizziness, shortness of breath, elevated blood pressure, shortened attention span, irritability, distress, and anxiety in a significant percentage of human subjects. A preponderance of negative ions (excess of free electrons) can have opposite and beneficial effects on perhaps 35% of tested subjects.

### Radio-Frequency Fields (Including Pulse-Modulated RP Carriers)

**A**LTHOUGH U.S. standards permit much higher levels of RF and AF ambient radiation than do Soviet standards, many scientists are coming to the conclusion that nonionizing and nonthermal levels of microwatts per square centimeter can have definite physiological effects. If harmonics, heterodynes, or pulse-repetition rate of modulations occur within the biological windows of from 3 Hz to 30 Hz—i.e., the spectrum of human brain waves—there may be interference with normal biological signal-processing. These effects will be touched upon in greater detail in the section devoted to ELF magnetic fields.

Nonmodulated RF fields have been shown to disrupt biological processes in human beings, animals, birds, and fish, and a vast literature exists on this subject. Pulsed or pulse-modulated carriers can entrain mammalian brain waves. More-over, the Luxembourg effect demonstrates interactions between local sources of RF and ionospheric polarization,

thus entrainment of all electromagnetic energy in the earth-ionosphere cavity over large geographical areas with very little excitation energy. The effect is demonstrated to be on the order of 100 W.

Devices for detecting and measuring these fields will be described shortly.

#### Ultrasonic and Infrasonic Acoustical Energy

**U**LTRASONIC pressure waves, although not perceived as audible “sound,” can cause distress, particularly in women. The source of this commonly present subliminal irritant is usually machinery in which bearings or shafts have become “dry.” A familiar example of a counterpart in the audible range is the baby stroller or the laundry cart; the high-pitched squeal of such machines can carry for hundreds of yards. Multiply this dry-bearing surface noise by hundreds of times in amplitude and several octaves in frequency; you can imagine the effects on human and animal nervous systems. Electrical coronas and pipes carrying fluids and gases under pressure can also produce ultrasonic signals, as can many industrial tools.

Infrasonic (subsonic) frequencies cause corresponding subliminal distress. Crowd-control weapons based on these principles have been tested and are effective in “sickening” subjects. Microseismic vibrations can move magnetic surfaces (such as the walls of steel filing cabinets), which in turn produce measurable and highly psychoactive ELF B-vector pulsations.

#### Light (Actinic) Energy

**M**ANY studies by Birren<sup>6</sup> and Ott<sup>7</sup> tend to suggest that color balance, spectral content, strobing (flicker) rates, UV, and RFI, as well as some unwanted (soft X-ray) radiation from fluorescent lamps can cause psychophysiological reactions.

At specific frequencies, “epileptic flicker-rate” photic stimulation has been demonstrated to drive human occipital evoked potentials into grand mal and petit mal seizures. Some studies suggest aggravation of hyper-activity.

Some of this work has been proven; other portions are still controversial. “Full-spectrum” lamps with enhanced UV are now claimed to be more healthful.

#### “Telluric” Radiation

**T**he highly speculative subject of telluric radiation is derived from the traditional medical experience that certain areas are “toxic” because of subtle emanations from clay subsoils, underground running water, noxious “ley lines” or standing waves of “telluric” or earth-current emissions.

In China, sites are carefully evaluated by highly respected medicine men called fung-shui doctors. In the Americas, Indian shamans sense livable sites. The Polynesian kahunas map these areas with their ancient rituals. Harvalik<sup>8</sup> has demonstrated human sensitivity to extremely weak magnetic gradients, presumably from underground streams and/or ore deposits. In all civilizations, such considerations have been evoked for selection of temples, grave sites, and optimal habitations. It has been noted that animals and insects tend to avoid areas sensed as “unfriendly” by shamans.

This practice is highly speculative, as I have indicated, and before the advent of highly sensitive magnetometers (flux-gate and SQUID and NNR devices) it appeared to border on dowsing apocrypha. More recent research (since World War II) tends to confirm a positive correlation of time-varying magnetic fields (Schumann resonances) and local “standing waves” in such locales modified by ground conductivity,

mineral content, and other factors. Direct health effects lack suitable rationale, but are under continuing investigation.

### Ionizing Radiation

**H**ARD and soft radiation (beta, gamma, alpha, X-ray) and their long- and short-term effects are extensively covered in the literature and will not be reiterated here. Detection involves the use of Geiger counters, ion chambers, dosimeters, spinthariscopes, scintillation detectors, etc.

Ott<sup>7</sup> has claimed that soft X-radiation (as from home television sets, fluorescent light fixtures, high-voltage vacuum tubes) will produce hyperactivity in children. Until extensively replicated, such contentions must be held to be speculative.

### Solid Particulate Matter in the Atmosphere

**E**FFECTS of microscopic spores and pollens have been well documented. Allergic reactions in persons sensitized to such irritants (histamines) are established medically, and there is accepted treatment for hay fever, asthma, and other conditions.

Cat danders, pollens, spores, and certain chemical dusts can trigger gross reactions. Typically, these particles are in the micron-size range and are not removed by conventional mechanical filters. Electrostatic filters ("Precipitron"-type devices, which put an electrostatic charge of kilovolts on incoming air and floating particulate matter, which is then directed through electrostatically charged parallel metallic plates where the particles will accumulate and "stick" by opposite-sign attraction to the walls of the accumulators) and free-ion generators have been demonstrated to be a viable approach to controlling these microscopic irritants and triggers.

Negative-ion generators have been shown to "clear" the air in surrounding areas (up to a 5 ft diameter for a 14 kV emitter) by the simple law of physics that like charges repel one another and are attracted to opposite charges.

The common advertising claim that an ionizer "cleans" the surrounding air is false. The actual physical mechanism involved is that the flood of free electrons emitted by the ion generator tends to collect on any solid particle in the near field. Micron-sized surfaces floating in the air collect an abundance of electrons and become highly electrostatically charged. Since the ionizer supplies charges of only one polarity, usually negative, all populations of particles (dust, smoke, pollens, spores, etc.) will have like signs and will therefore repel one another, while they are attracted to any surface carrying an opposite or neutral polarity—which, by definition, is any wall, ceiling, or tabletop in the vicinity. These highly electrostatically charged particles are attracted to and "stick" to any nearby surface, and this leaves the air with a vastly depleted population of solid contaminants. Nearby surfaces become blackened quite rapidly.

The useful range of a well-designed ionizer is about 3 ft, depending on humidity, metallic surfaces in the vicinity, dielectric surfaces nearby (which, collect charge and then neutralize corona emission of the device), and other factors.

Disadvantages include: the possibility of electrostatic damage to calculators, watches, CMOS devices, etc.; the buildup of potentials on conductive devices and tools, which will give a mild shock if touched; and possible RF interference.

## Man-Made Toxic Smoke

**P**ERHAPS the single most irritating environmental contaminant, at least to nonaddicts, is cigarette smoke. Toxic effects of “side-smoke” and carbon monoxide have been extensively reported. Damage to optical surfaces and electrical (switch) contacts from monomolecular coatings of tars are well documented.

The problem here is that nicotine is established as the most highly addictive substance known to man, about 4 to 4 1/2 times more physically addictive than heroin and more addictive than opium, morphine, etc. Studies revealing this information have been effectively suppressed by tobacco interests and political lobbies because of the tremendous tax revenues and the criminal interests involved in vending and distribution of the substance.

When Proposition 5 appeared on the California ballot in 1980, to establish nonsmoking sections in public restaurants, the tobacco industry raised a war chest of over \$5,000,000 to defeat the measure.

Although Los Angeles City Ordinance 707 places a fine of \$500 on persons found smoking in movie theaters, the author has never attended a theater where at least a dozen people in the auditorium were not smoking. The simple fact is that addicts simply cannot endure a coast-to-coast plane flight, or an hour-and-a-half movie, or even a meal in a restaurant without at some point craving a “fix.”

Groups developing an injectable or ingestible substitute for smokable nicotine have been roundly suppressed by interests attempting to preserve the myth that people smoke “by choice” and for “enjoyment.” An injectable drug would enable addicts to tolerate a coast-to-coast plane flight, a meal out, or a trip to the theater without having to contaminate the air space of nonaddicts.

Meanwhile, this contaminant can be handled by electrostatic precipitation, charcoal air filters, or at short range by ionizers. Very compact battery-operated devices could be offered to nonaddicts whose health and concentration are physically threatened by the proximity of the unfortunate compulsive users.

## Extreme-Low-Frequency Magnetic Fields

**A**VERY recent discovery (mid-1960s) is that time-varying magnetic fields of extreme low frequency (in the range of 3 to 30 Hz) and very low amplitude (10 to 100  $\mu$ G), if appearing within a specific window\* range, can disrupt psychophysiological functions by interacting with the normal neuronal circadian rhythms.

Indications of hemispheric EEC desynchronization and other symptomatology have been reported by Wever,<sup>9</sup> König,<sup>4</sup> Adey,<sup>10</sup> Hamer,<sup>1</sup> Persinger,<sup>11</sup> and many others.

In brief, the effects of photic stimulation at the epileptic flicker rate in bringing about grand mal seizures have been well known since the 1930s.

The heart rhythm entrainment provided by small electrical signals from cardiac pacemakers are also well known.

Recently, studies by Persinger,<sup>12</sup> Wortz *et al.*,<sup>13</sup> and others have postulated mechanisms by which neuronal entrainment to extremely weak fields can be justified. Consequently, magnetic pulsations are becoming accepted as psychoactive.

Empirical evidence establishes that extreme discomfort can be produced in significant numbers of human subjects with fields in the frequency range of 3 to 6.67 Hz, and that episodes of distress can be triggered by certain other “window” vectors, at the almost unmeasurable microgauss amplitude levels. These fields are easily produced by rotating machinery, moving equipment made of iron or steel (such as fans and blowers that have not been degaussed and thus contain residual mag-

\*A product of frequency, intensity, and polarization.

netism because of their presence in the earth's ambient 0.4 G field). They are even produced by microseismic vibrations of steel surfaces such as office furniture or cabinets.

Dangerous conditions can accrue when several pieces of rotating machinery heterodyne to produce beat frequencies falling within windows determined to be psychoactive; and the fact that they are rotating means that polarization will be circular.

The author has determined by extensive field research since the early 1970s that these magnetic fields may be the predominant cause of mysterious "malaise" experienced in otherwise impeccable environments.

### Highly Esoteric Factors

**R**ECENTLY, a renewed interest in "psychotronic" technology has surfaced. This subject is highly controversial, except to medical practitioners, who deal with it professionally. Psychotronics more or less fell into disfavor in the early 1960s. Physicians and chiropractors were arrested, and equipment confiscated and destroyed. Raids were condoned by local district attorneys and the FDA. The mid-1970s saw a tremendous resurgence of interest, and the U.S. Psychotronics Association emerged from underground networks.

Many cultures with historical roots and expertise dating back thousands of years believe from practical experience that no dwelling should be occupied before a formal energy-exorcism has been performed by a shaman specialist. Certain religions today still have such specialists in the blessing of houses or performing exorcisms. Tests in the mid-1960s in Great Britain seemed to prove that anxiety, hypertension, and hormone levels could definitely be affected by randomly timed psychic (prayer) "hits" or "blessings" from a distance, performed by radionics or radiesthesia operators working under double-blind conditions.

### NOTES

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