DOWSING AND MAGNETISM - a response to Chadwich

and Jensen by **Jim Enright**

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>>DOWSING AND MAGNETISM

I have spent several hours examining "The detection of magnetic fields caused by groundwater, and the correlation of such fields with water dowsing", a 57-page monograph by Chadwich and Jensen, published by Utah State University in 1971, to which I was referred by dowsing advocates. When carefully considered, that report is singularly unconvicing.

As their principal line of evidence, the authors found a tendency of people tested for dowsing ability to choose similar locations-- that is, the places where people thought they noticed "something unusual" were not randomly distributed along the test lines. The authors postulate that the agreement among those tested was caused by the presence of ground-water-induced irregularities in the surrounding magnetic field, an interpretation for which they present no convincing evidence whatsoever. Outdoor locations such as theirs (unless intentionally and specially otherwise constructed) are very apt to be conspicuously non-uniform, with greener grass here, a tree on either side there, a view of a distant building from here, a patch of daisies or bare ground there. To expect people to choose points AT RANDOM along such an outdoor line is to ignore the fact that genuine randomness is an ideal that real people usually cannot achieve without the use of accessory mathematical tools. People who don't know what is expected of them will probably make more or less similar guesses about what they OUGHT to be doing, and thereby choose similar locations.

Experts have advised me that the theory underlying the interpretation of the authors for those results is flawed in major ways. Making very generous assumptions about a general situation (a HUGE confined stream of moving groundwater, containing more ionized particles than distilled water, yet remaining drinkable), it is conceivable that the most sensitive of modern magnetometers MIGHT be able to distinguish between the presence and absence of such an underground flow. The signal-to-noise ratio, arising from the many natural fluctuations in the earth's magnetic field, however, means that for a human sensory system also reliably to detect that magnetic stimulus becomes extremely implausible, particularly when one realizes that there is no persuasive evidence whatever to suggest that humans have the physiological capacity to detect and respond even to quite strong magnetic fields. Even a boy-scout, when trying to find his way, is advised to rely on his hand-held magnetic compass and not on such a hypothetical physiological magnetometer!

I note with emphasis that physicists like Betz and colleagues in Germany, who undertook very extensive experiments on water dowsing (1990), tested and rejected the idea that dowsers might detect and respond to relatively strong magnetic fields. Those failed experiments even convinced that group of dowsing enthusiasts that the notion of human magnetic sensitivity was not persuasively supported by their own experimental evidence. If they weren't convinced, I see no reason why, at this later date, one should entertain the notion any further, as Chadwich and Jensen had advocated.<<

My expert informs me that there are relatively large temporal fluctuations (hour to hour) in the strength (and pattern?) of the earth's field, in addition to whatever spatial anomalies that might arise due to iron deposits or the like.

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