

Investigative Files

Levengood's Crop-Circle Plant Research

By Joe Nickell (CSICOP Senior Research Fellow.)

In several technical papers, W. C. Levengood purports to show that "Plants from crop formations display anatomical alterations which cannot be accounted for by assuming the formations are hoaxes." [1] Unfortunately, there are serious objections to Levengood's approach. First of all, while he uses various control plants for his experiments, nowhere in the papers I reviewed [1,2,3,4] is there any mention of the work being conducted in double-blind manner so as to minimize the effects of experimenter bias. (As one "cereologist," the Earl of Haddington, said of another laboratory that claimed to detect different "energy levels" between crop-circle and non-crop-circle areas [a concept that appears to have begun with dowsers], "When they are not told which sample came from a Crop Circle and which from a heap of grain in my back yard they are either unable or unwilling to give a result." [5])

The question of bias is important since Levengood's attitudes and assumptions reveal him as a partisan crop-circle "believer" of the Terence Meaden, ion-plasma-vortex variety. Alas, Meaden-who wrote several articles and books advocating the vortex hypothesis-was increasingly forced to conclude that great numbers of crop circles, especially the elaborate pictograms, were produced by hoaxers, and he reportedly abandoned interest in the subject. [6] Levengood's colleague, John A. Burke, seems particularly defiant towards "alleged hoaxers" [7], as if there were not powerful evidence that most-probably all-of the crop patterns were man-made.[8]

There is, in fact, no satisfactory evidence that a single "genuine" (i.e., vortex-produced) crop-circle exists, so Levengood's reasoning is circular: Although there are no guaranteed genuine formations on which to conduct research, the research supposedly proves the genuineness of the formations. But if Levengood's work were really valid, he would be expected to find that some among the putatively "genuine" formations chosen for research were actually hoaxed ones-especially since even some of Meaden's most ardent defenders admit there are more hoaxed circles than "genuine" ones. [6,8] In fact, there is now evidence that a major formation that Levengood believes genuine and uses as a basis for theoretical discussion-the "Mandelbrot" formation-was the work of hoaxers. [6]

Although Levengood finds a correlation between "structural and cellular alterations" in plants and their location within crop-circle-type formations (as opposed to those of control plants outside such formations) [1], he should know the maxim that "Correlation is not causation." As the noted Temple University mathematician John Allen Paulos recently demonstrated-quite tongue in cheek-there is a direct correlation between children's math ability and shoe size! [9] Comments statistician Rand Wilcox of the University of Southern California: "Correlation doesn't tell you anything about causation. But it's a mistake that even researchers make." [9]

That Levengood's work does not go beyond mere correlation in many instances is evident from his frequent concessions: For example, "Taken as an isolated criterion," he says, "node size data cannot be relied upon as a definite verification of a 'genuine' crop formation." [1] Again he admits, "From these observed variations, it is quite evident that [cell wall] pit size alone cannot be used as a validation tool." [1]

Even his alleged correlations are suspect. Citing variations in pit expansion and node size in plants from within the formations, he states: "These energy distributions are by no means uniform." [10] Again, he cites formations where there were increases in plant pit size well outside the formations, saying that "some 20 feet out is the farthest I've seen this energy carryover and so even [though] those crops were standing upright and looked perfectly normal they had been hit." He attributes this to "several different kinds of energy" being involved. [10]

He thus gives the impression that, like Meaden, he is constantly rationalizing new data and attempting to fit it in to preconceived vortex notions. Apparently no one has yet independently replicated Levengood's work. One scientist from Colgate did attempt to verify his seed germination claims using some of his seeds but without success.[10] Apparently few mainstream scientists take Levengood's work seriously other than one or two friends who wish "to remain anonymous because of the ridicule. [10]

Until his work is independently replicated by qualified scientists doing "double-blind" studies and otherwise following stringent scientific protocols, there seems no need to take seriously the many dubious claims that Levensgood makes, including his similar ones involving plants at alleged "cattle mutilation" sites.[10]

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