



## SGHA Articles

Expanding knowledge through disseminating information.

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### Articles ~ Ghost hunting and beyond ~ The 10 Biggest mistakes made by ghost hunters

#### 1. You cannot use the paranormal to prove the paranormal.

Simply put this is a circular argument that violates Scientific method and gives your skeptics the bullet to shoot you with. Simply put, not one single experiment in modern research has ever been able to conclusively prove the psychological talents of these so-called mediums. Worse still, many mediums appear to be in the field solely for the easily obtainable funding they can accrue from fleecing an unwary and gullible public.

This is not only limited to the use of psychics and mediums but also includes such things as electronic voice phenomena (EVP). EVP itself has not been scientifically proven and therefore cannot be used to prove that a location is haunted or has a ghost.

#### 2. Investigator Bias

Too often ghost researchers are composed of people who classify themselves as believers. This can contaminate the results of an investigation because it violates the use of scientific method. The scientific method attempts to minimize the influence of the scientist's bias on the outcome of an experiment. That is, when testing a hypothesis or a theory, the scientist may have a preference for one outcome or another, and it is important that this preference not bias the results or their interpretation. The most fundamental error is to mistake the hypothesis for an explanation of a phenomenon, without performing experimental tests. Sometimes "common sense" and "logic" tempt us into believing that no test is needed.

The scientific method is based upon evidence rather than belief. This distinguishes science from faith. A scientist is suitably skeptical of anything but good evidence. That is not to say that scientists lack faith...it is just that faith for them operates in a different sphere of their lives. In scientific work there is little room for faith; in life there is plenty of room for both. Scientific and critical thinking require that one reject blind faith, authority, revelation, and subjective human feelings as a basis for reliable belief and knowledge. These human cognitive methods have their place in human life, but not as the foundation for reliable knowledge.

This is why it is crucial that skeptical investigators are apart of your team. Many people believe that skeptics are closed-minded and, once possessing reliable knowledge, resist changing their minds. This simply is not true. A skeptic holds beliefs tentatively, and is open to new evidence and rational arguments about those beliefs. Skeptics are undogmatic, i.e., they are willing to change their minds, but only in the face of new reliable evidence or sound reasons that compel one to do so.

#### 3. Understanding the proper use and limitations of Equipment

There are several factors to consider about equipment used in your investigations. One example is the type of EMF meters; it depends on what kind of meter you are using and why you are using it. The majority of EMF meters out there are designed to find AC (alternating current) electromagnetic fields. AC fields will ALWAYS be manmade. Natural fields are DC. This is what runs the human body's bioelectrical system, what causes lightning, and what powers a ghost. You cannot detect a ghost with an AC field meter. To even suggest that is preposterous to anyone who has even the slightest knowledge of physics. However you can use them to eliminate manmade sources.

Even beyond that, the majority of EMF meters are only rated for between 50-60 Hz. This is because these are the frequencies that the electrical grids in Europe and North America run at, and these meters were designed to detect these specifically.

Another consideration is the specifications of the equipment that you use. The old saying, "You get what you pay for" comes into play here. If you use EMF meters they need to be scientific grade to ensure that your readings are accurate. For example, those white 3 led ELF Zone meters that sell for \$15 to \$20 have an accuracy of 2%. This leaves a 98% chance that the reading you're obtaining is inaccurate. EMF meters of that have a high degree of accuracy start in a cost range of \$500 per meter and can go as high as \$8,000. These types of meters often require an annual calibration by a certified individual and the certification date is marked on a sticker placed on the instrument.

#### 4. Lack of a hypothesis

If you are going to prove the existence of ghosts you must have a hypothesis that defines not only what a ghost is but what you are looking for and why. If you're searching for electromagnetic fields your hypotheses should reflect why and what frequencies and power levels you are targeting. How are apparitions formed? How do they move objects? All

of these criteria should be explainable in your hypothesis.

Another common mistake is to ignore or rule out data which do not support the hypothesis. Ideally, the researcher is open to the possibility that the hypothesis is correct or incorrect. Sometimes, however, a researcher may have a strong belief that the hypothesis is true (or false), or feels internal or external pressure to get a specific result. In that case, there may be a psychological tendency to find "something wrong", such as systematic effects, with data which do not support the scientist's expectations, while data which do agree with those expectations may not be checked as carefully. The lesson is that all data must be handled in the same way.

The scientific method requires that a hypothesis be ruled out or modified if its predictions are clearly and repeatedly incompatible with experimental tests. Further, no matter how elegant a theory is, its predictions must agree with experimental results if we are to believe that it is a valid description of nature. Experiments may test the theory directly (by observation for example) or by testing for consequences derived from the theory using mathematics and logic. The necessity of experiment also implies that a theory must be testable. Theories which cannot be tested, because, for instance, they have no observable ramifications (such as characteristics that make it unobservable), do not qualify as scientific theories.

#### 5. Impartially evaluating evidence

Many ghost hunters go into an investigation with an unchanging, dogmatic idea that ghosts exist. During the course of an investigation, they will interpret almost anything they find as evidence of an actual ghost. Electromagnetic readings, cold spots or photographic anomalies all become additional ghostly phenomena, but the ghost hunters never seriously consider other, more earthly solutions. They start with the answer they want to reach before they begin investigating.

What do exist are unexplained events that seem to have a paranormal origin. These events can be investigated, and many times the causes can be determined. Often, the ghosts are "busted" when the investigator discovers that it was actually a poorly sealed window causing the cold draft, an electromagnetic storm that caused that odd reading on their Trifield meter or dust floating within the camera's inverted focal point that resulted in a picture of an "orb".

In the case of moving objects or unexplainable sounds, an attempt should be made to replicate the phenomena. Often they have a more earth bound solution. A good paranormal investigator examines the evidence itself and then tries to find out where that evidence leads.

#### 6. The use of pseudoscience

A pseudoscience is an established body of knowledge which masquerades as science in an attempt to claim a legitimacy which it would not otherwise be able to achieve on its own terms; it is often known as fringe- or alternative science. Ghost hunting has evolved very little since it was first established. The small amount of research and experimentation that is carried out is generally done more to justify the belief than to extend it. Ghost hunters need to think "outside of the box". Obviously, the techniques and ideology of the early ghost researchers is flawed. The search for new knowledge is the driving force behind the evolution of any scientific field. Nearly every new finding raises new questions that beg exploration. There is little evidence of this in the pseudosciences.

Pseudoscientific concepts tend to be shaped by individual egos and personalities, almost always by individuals who are not in contact with mainstream science. They often invoke authority (a famous name or group for example) for support. Pseudoscientific explanations tend to be vague and ambiguous, often invoking scientific terms in dubious contexts. Phrases such as "energy vibrations" or "subtle energy fields" may sound impressive, but they are essentially meaningless.

#### 7. Keep religion out of it.

Science and religion deal with different aspects of human existence, they do not have to conflict with each other. Conflict arises when either subject infringes on the other's domain. Religion should deal with moral and spiritual issues; it should not make claims on physical laws or facts. Science should deal with physical laws, not claim moral or ethical knowledge. Additionally, religion represents a world view of sorts and just as there are many religions, there are many different worldviews. The problem arises from the uncertainty of which world view to use and the interpretation of that world view.

#### 8. Lack of Scientific method

The scientific method is the process by which scientists, collectively and over time, endeavor to construct an accurate (that is, reliable, consistent and non-arbitrary) representation of the world. Scientists use observations and reasoning to propose tentative explanations for natural phenomena, termed hypotheses. Predictions from these hypotheses are tested by various different experiments. An important aspect of the hypothesis is that it must be falsifiable, in other words, that it must be possible to prove the hypothesis to be false. If a hypothesis is not falsifiable, it is not a hypothesis, and is instead an opinion or statement not based upon the scientific method.

Once a hypothesis is repeatedly verified experimentally, it is considered a theory and new predictions are based upon it. Any erroneous predictions, internal inconsistencies or lacunae, or unexplained phenomena initiate the generation of new hypotheses, which are themselves tested, and so on. Any hypothesis which is cogent enough to make predictions can be tested in this way.

Recognizing that personal and cultural beliefs influence both our perceptions and our interpretations of natural phenomena, we aim through the use of standard procedures and criteria to minimize those influences when developing a theory. Remember that the burden of proof is on you. The new theory should explain the existing data, provide new predictions and should be testable; remember that all scientific theories are falsifiable. Read the articles and improve your theory in the light of your new knowledge.

#### 9. Lack of knowledge of applied sciences

Nearly as common in usage as photographic equipment, electromagnetic field meters (or EMF detectors) have gained in popularity and utility in recent decades. All EMF sensors are designed to do one thing: measure the strength of

electromagnetic fields in a given area. While they are invaluable tools, it is an uncomfortable fact that most paranormal researchers do not understand how to use these devices, or even what they are trying to prove by using them. Most EMF meters simply are not capable of measuring the fields we believe to be most likely associated with haunting activity. They were designed to measure manmade electrical fields within certain frequencies. Those frequencies almost always center on 50Hz to 60Hz, which are the frequencies of the electrical grids in Europe and North America, respectively. Some EMF meters can see further below 50Hz. A popular model is able to measure between 5Hz to 60Hz. But while most ghost hunters can tell an interviewer that it is important to register a wider range of EM frequencies, they cannot answer why it is. In fact, the EMF sensors most ghost hunters utilize are not even capable of registering a ghostly energetic field, and what results they do get are almost always caused by manmade interference. Understanding basic principles of electromagnetism are vital if you are using equipment to locate electromagnetic fields. A knowledgeable person can quickly determine an amateur or novice from someone that knows what they are doing.

#### 10. Removal of "Ghosts" (cleansing)

To remove a "ghost", you need two things;

An actual, verifiable ghost

A tested, proven method of getting rid of that ghost

The problem a real investigator runs into is that neither of those things has ever been conclusively proven to exist. What do exist are unexplained events that seem to have a paranormal origin. These events can be investigated, and many times the causes can be determined. Scientific and critical thinking require that one reject blind faith, authority, revelation, and subjective human feelings as a basis for reliable belief and knowledge. These human cognitive methods have their place in human life, but not as the foundation for reliable knowledge.



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