## EVP's.....What the Heck are They?

By

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Halloween is right around the corner! This is paranormal research's busiest time of the year. During the month of October, we are constantly getting asked by the media for our 'scariest' ghost recordings (or EVP's) we have collected. These recordings are very intriguing and some will send chills shooting up your spine but...what the heck are they?

EVP is a form of evidence in paranormal investigation that causes a lot of controversy. The opinion of what they are varies widely within the field and outside the field among hard core skeptics. EVP is an intriguing subject to be sure, but what is it? Let's first start by examining the classic definition of the phenomenon. EVP or "Electronic Voice Phenomenon" is defined as sections of static noise on an electronic recording that some listeners believe sound like voices speaking words or various sounds; paranormal investigators sometimes interpret these noises as the voices of the deceased or spirits. Recording EVP has become a technique of those who attempt to contact the souls of dead loved ones or during "ghost hunting" activities. According to parapsychologist Konstantin Raudive, who popularized the idea, EVP are typically brief, usually the length of a word or short phrase. Skeptics of the paranormal attribute the voice-like aspect of the sounds to apophenia (finding of significance or connections between insignificant or unrelated phenomena), auditory pareidolia (interpreting random sounds into voices in their own language which might otherwise sound like random noise to a foreign speaker), anomalies due to lowquality equipment, and simple hoaxes. Likewise some reported EVP can be attributed to radio interference or other well-documented phenomena.

As the Spiritualism religious movement became prominent in the 1840s–1920s with a distinguishing belief that the souls of the dead can be contacted by mediums or psychics, new technologies of the era including photography were employed by spiritualists in an effort to demonstrate contact with a "spirit world". So popular were such ideas that Thomas Edison was asked in an interview with Scientific American to comment on the possibility of using his inventions to communicate with spirits. He replied that if the spirits were only capable of subtle influences, a sensitive recording device would provide a better chance of spirit communication than the table tipping and Ouija board mediums employed at the time. However, there is no evidence that Edison ever designed or constructed a device for such a purpose. There is a legend that Edison had designed a "telephone to the dead" but the blueprints and any such invention was lost upon his death in 1931. As sound recording became widespread, mediums explored using this technology to demonstrate communication with the dead as well. Spiritualism declined in the latter part of the 20th century, but attempts to use portable recording devices and modern digital technologies to communicate with spirits continued.

All of that having been said, there is a significant amount of EVP do not have an immediate explanatory reason. We will endeavor in this article not to present the conclusive answer to the EVP phenomenon, because quite frankly scientific paranormal investigation is still a long way from that. We will instead examine the possibilities that you can take away as "food for thought". The important genesis of this discussion is to understand sound, its mechanics and potential recording mediums.

As we have discussed earlier, sound is an energy vibration in the air. To give a more thorough definition, sound is vibration transmitted through a solid, liquid, or gas; particularly, sound means those vibrations composed of frequencies capable of being detected by ears. The mechanical vibrations that can be interpreted as sound are able to travel through all forms of matter: gases, liquids, solids, and plasmas. The matter that supports the sound is called the medium. Sound cannot travel through a vacuum.

Another way reinforcement of certain frequencies may occur is by resonance: a structure tends to vibrate at certain frequencies and cause sound components at those frequencies to become louder than other components. Resonance is generated by systems with the ability to store energy and feed that energy back into the environment, as with walls which begin vibrating when driven by sound waves, causing the regeneration of sound waves that add with incident sound waves, attenuating the resonant frequencies less than others. The resonances of a room will color the sound of reverberation as certain frequencies reinforce and others do not. The phenomenon of resonance is not limited to rooms: resonance in solid objects like microphones also contributes to the sound of such devices and electronic circuits may exhibit resonance as well, and of course the bodies of musical instruments are designed to resonate, producing the characteristic sound of the instrument. In fact, any system with both kinetic and potential energy components may resonate at frequencies determined by the specific interaction of the two forms of energy.

For humans, hearing is limited to frequencies between about 20 Hz and 20,000 Hz (20 kHz), with the upper limit generally decreasing with age. Let us start our discussion with an intriguing, controversial but seemingly plausible phenomenon known as paleoacoustics.

The legend of the Lazarus Bowl is one that is not widely known, nor is it widely believed by those who do know about it. This legend has its roots in biblical writings and tradition. This miracle of Jesus took place during the last year of his life, in his Perean ministry. Lazarus, along with his sisters Mary and Martha were personal friends of Jesus and were close to him. This dramatic event took place in Bethany, approximately two miles away from Jerusalem.

Now, supposedly while Jesus was rising Lazarus from the dead, an old woman nearby was making a pottery bowl and Jesus' words were recorded in the clay much like a record. Science now steps in with the understanding that everything that exists is made up of minuscule particles, all of which vibrate and have a specific tone. Also, sound itself is created by vibrations.

Based on this, one can understand how, if the vibrations were amplified or recorded in some way, the sounds present at the time of the piece's creation could, in theory, be heard. This is the idea behind that Lazarus Bowl, that the voice of Jesus when he commanded Lazarus to rise was encrypted into a ceramic bowl being made in the vicinity, and the words recorded are believed to hold the same power.

In the Feb. 6, 1969 issue of the *New Scientist*, the idea was discussed in the humorous "<u>Daedalus</u>" column by David E. H. Jones. (The column, in which Jones puts forth various controversial yet somehow plausible scientific schemes, later moved to *Nature*, where it continued until recently.) As recounted in <u>*The Inventions of Daedalus*</u>, Jones wrote:

[A] trowel, like any flat plate, must vibrate in response to sound: thus, drawn over the wet surface by the singing plasterer, it must emboss a gramophone-type recording of his song in the plaster. Once the surface is dry, it may be played back.

As it turns out, an independent scholar named Richard G. Woodbridge III had already been working quite seriously on this matter. Woodbridge wrote in to "Daedalus," saying that the replication of his idea must be "one of those very, very odd coincidences":

Wooldridge wrote: "How very odd, that I should have sent to *Nature*, a paper (dated 13 January, 1969) entitled 'Acoustic Recordings from Antiquity'; which paper was perfunctorily rejected as being 'too specialized'. In my paper I noted my early experiments (1961) in the recording of sound (music, voices, etc.) on clay pots and on paint strokes applied to canvas (as in oil paintings) and the *successful* reproduction of such sound using a crystal phono pickup and a spatulate, wooden 'needle'."

Woodbridge would eventually find an outlet for his paper, in *Proceedings of the IEEE*, Vol. 57(8), August 1969, pp.1465-6. In truth, the "paper" is no more than a <u>letter</u> describing his experiments with making pots and paintings that could then be "played back." From analyzing the grooves of a pot, he claimed to have extracted the humming sound of the pottery wheel. Even more improbably, he said he could discern the word "blue" from an analysis of a painting's blue patch.

There are other paleoacoustical predecessors that do not necessarily rely on pottery or paintings to recapture the sound of voices from the past. For instance, the BBC aired a movie in 1972 called "<u>The Stone Tape</u>" about an old room made of a type of stone that could store both sounds and images. And a commenter on <u>Accidentals and Substantives</u> noted a much earlier forerunner for such speculation, from Charles Babbage's *Ninth Bridgewater Treatise*, written by the computing pioneer in 1837 (discussed by John Picker in <u>Victorian Soundscapes</u>). Here is an excerpt from <u>Chapter 9</u>, "On the Permanent Impression of Our Words and Actions on the Globe We Inhabit'':

"The pulsations of the air, once set in motion by the human voice, cease not to exist with the sounds to which they gave rise. Strong and audible as they may be in the immediate neighborhood of the speaker, and at the immediate moment of utterance, their quickly attenuated force soon becomes inaudible to human ears. The motions they have impressed on the particles of one portion of our atmosphere, are communicated to constantly increasing numbers, but the total quantity of motion measured in the same direction receives no addition. Each atom loses as much as it gives, and regains again from other atoms a portion of those motions which they in turn give up. The waves of air thus raised, perambulate the earth and ocean's surface, and in less than twenty hours every atom of its atmosphere takes up the altered movement due to that infinitesimal portion of the primitive motion which has been conveyed to it through countless channels, and which must continue to influence its path throughout its future existence.

But these aerial pulses, unseen by the keenest eye, unheard by the acutest ear, un-perceived by human senses, are yet demonstrated to exist by human reason ; and, in some few and limited instances, by calling to our aid the most refined and comprehensive instrument of human thought, their courses are traced and their intensities are measured. If man enjoyed a larger command over mathematical analysis, his knowledge of these motions would be more extensive; but a being possessed of unbounded knowledge of that science, could trace every the minutest consequence of that primary impulse. Such a being, however far exalted above our race, would still be immeasurably below even our conception of infinite intelligence. But supposing the original conditions of each atom of the earth's atmosphere, as well as all the extraneous causes acting on it to be given, and supposing also the interference of no new causes, such a being would be able clearly to trace its future but inevitable path, and he would distinctly foresee and might absolutely predict for any, even the remotest period of time, the circumstances and future history of every particle of that atmosphere. Let us imagine a being, invested with such knowledge, to examine at a distant epoch the coincidence of the facts with those which his profound analysis had enabled him to predict. If any the slightest deviation existed, he would immediately read in its existence the action of a new cause; and, through

the aid of the same analysis, tracing this discordance back to its source, he would become aware of the time of its commencement, and the point of space at which it originated. Thus considered, what a strange chaos is this wide atmosphere we breathe! Every atom, impressed with good and with ill, retains at once the motions which philosophers and sages have imparted to it, mixed and combined in ten thousand ways with all that is worthless and base. The air itself is one vast library, on whose pages are for ever written all that man has ever said or woman whispered. There, in their mutable but unerring characters, mixed with the earliest, as well as with the latest sighs of mortality, stand for ever recorded, vows unredeemed, promises unfulfilled, perpetuating in the united movements of each particle, the testimony of man's changeful will. But if the air we breathe is the never-failing historian of the sentiments we have uttered, earth, air, and ocean, are the eternal witnesses of the acts we have done."

While all of this sounds very intriguing and quite plausible, there is no scientific data as of yet to back up any of these claims. Paleoacoustics is a field of study that may yield some promise with future research but I think it is, for the purposes of this article, a starting place to understand how sounds could be recorded in our environment. So the next time you record an EVP you have to ask yourself, "Is this the voice of a spirit or an environmental mp3 track from the greatest hits of history?"