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Ghost Hunter X

A qualitative study on the effects of ghost hunting
on myth building and bias in "haunted" locations

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Ghost Hunter X; a qualitative study on the effects of ghost hunting on myth building and bias in "haunted" locations

1. Abstract

This multiphase study was performed to discover if the information presented or reported by ghost hunters and paranormal investigators will affect the basis and perceptions of a "haunted" location due to an increase in myth building and the bias of the information presented.

2. Method

Two placebos were submitted to the client in the form of one audio recording (EVP) and some researched historical information of the area. The site would be revisited in 12 months to note any changes to the current stories and witness accounts (if applicable).

A second investigation of the location would then be initiated by another group of investigators, who have no knowledge of the original findings or the pre-placebo accounts of the witnesses, to see if they could come up with the same results as the initial investigation that solved the case.

Placebos

The first placebo was an audio recording with a "EVP sample" (electronic voice phenomenon) with a male voice saying "I will kill you." The audio clip was created in Abode Audition to mimic the typical results presented by ghost hunters.

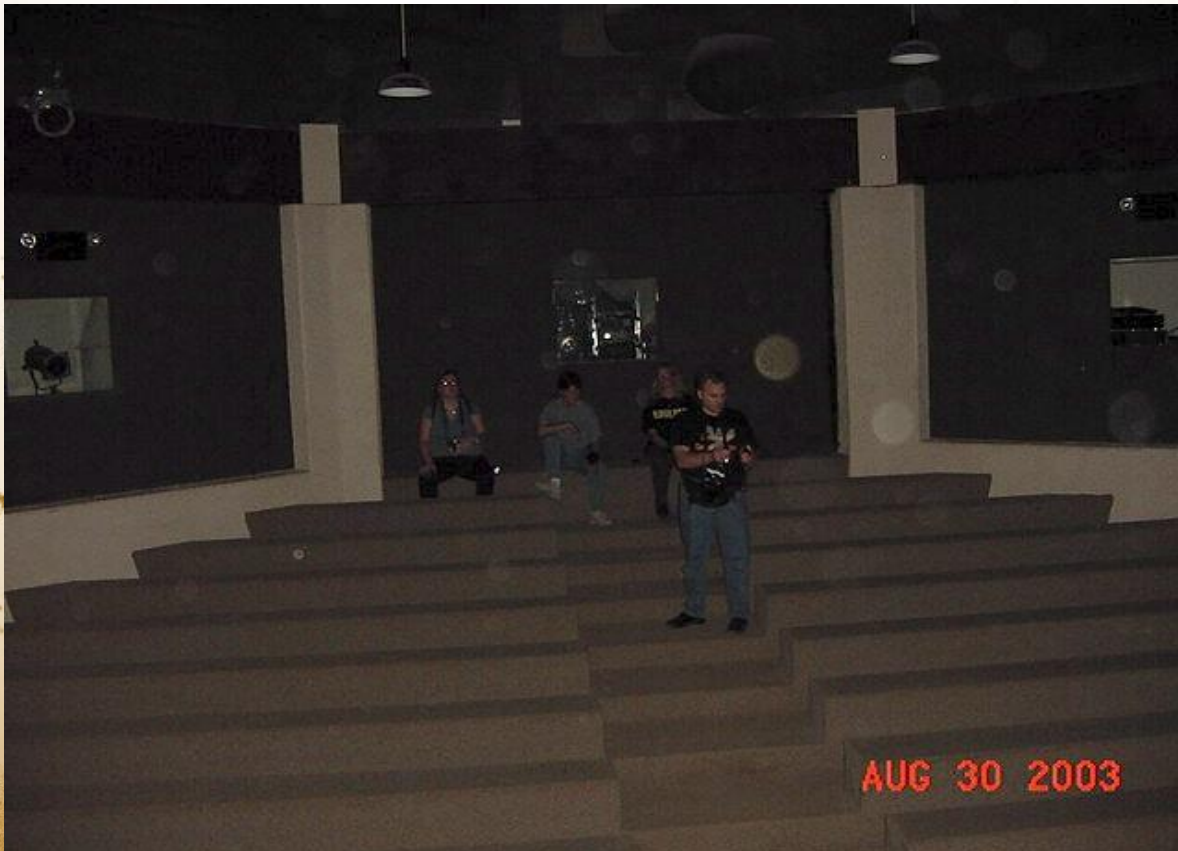
The second placebo was historical information on the area. The place where Old Tucson studio stands is on (or near) the last stagecoach stop before heading over the mountains and down into Tucson. In this area were repeated reports of attack by the natives on the stage coach stop which resulted in deaths on both sides.

3. Site Selection

The most "active" location within the studios is the Arizona Theater, also called "The Story teller's". This is a small underground theater that many of the security guards believe is haunted by a male ghost. We chose this location because we were the first ghost hunters to investigate the location and the phenomenon occurring at the location was identified and explained. The results from the investigation had not yet been revealed to the guards making this an ideal location to do the study. Additionally, we have exclusive access to this location and other paranormal investigation teams were denied access.

4. Reported Phenomenon (myths) before the introduction of the placebos

Although there are a few exceptions, the "ghost" mainly makes its presence known to the female security guards. The theater contains a lot of audio and video equipment so the air conditioning is always left on. The guards often go into the theater late at night to cool off.



The female security guards enter the theater alone and sit in the back row of the theater in the dark. They keep the lights off so save on power costs and therefore are allowed to go inside. After several minutes they began to hear noises on the stage which resemble footsteps. The footsteps then "jump" down off the stage and move towards the women at the rear of the theater. Suddenly, the subtle light coming from the theater's exit lights are blocked as if someone is standing before them. This is followed by either a tapping sound or heavy breathing. Usually the women turn on a flash light



at this point, revealing that no one is there.

The guards are not frightened by this and often make jokes that they should give the ghost a name. On occasion, the ghost makes its presence known to men. This has only happened to male security guards that the "ghost" doesn't like.

5. Reported Phenomenon (myths) after placebos were introduced

After the introduction of the placebos, the witness experiences altered dramatically. The "ghost" no longer appeared to men, only to women. The myth became more elaborated by introducing the additional belief that the ghost would flee from males due to its aggressive nature towards women. the ghost was now "identified" as a Native American man who was abusive in life and now haunts the Arizona Theater. (Note: Historical research has proven that such a person never worked in the theater) The new altered version goes further in explaining that the ghost despises women and will "attack" them if they enter the theater without a male present.

Other variations were between the stories before and after the introduction of the placebos are listed in Table 1.

Table 1: Myth building

Myth Element	Before Placebo	After Placebo
Appearance of Apparition based on observer's sex	Ghost appears to women and occasionally to men	Ghost appears only to women
Apparition's Nature	Benign, Curious	Malevolent, Angry
Race of Apparition	Unknown, not identifiable	Native American
Physical Contact	Does not touch the observers	Observers are "attacked", pushed & grabbed
Ghost's Movement and Noises	Observer's heard the ghost approaching, jumping off the stage followed by footsteps up to the rear of the theater	Some noise, jumping from stage & a few footsteps. Ghost approaches observers silently (sneaking up on them)

6. Study Results

The study clearly shows that the typical information that ghost hunters and paranormal investigators present to a location, as "evidence", can radically alter the elements of the back story of the witness accounts (myth building) in a relatively short amount of time. The elements of the reported phenomenon, which were quite vague at the start, were elaborated upon and a new variant of the back story emerged. This has profound implications in the investigation process if the myth building alters the facts enough to prevent the identification of explainable phenomena.

7. Investigation Comparisons

A comparison between the investigations launched before and after the introduction of the placebos yielded some very substantial results in three aspects of the reported phenomena.

1. Identification of the shadow that blocks the light from the exit signs.

Before Placebo

Team was able to identify the "ghost/ shadow" as Pareidolia caused by macular vision in low light conditions. The vagueness of the witnesses' description played a vital part of finding the solution.

After Placebo

The team had difficulty in identifying the actual phenomenon because the descriptions provided by the witnesses' were more detailed (they saw a man, not a shadow). They were focused on finding something that could appear solid that could be blocking the light. While they eventually arrived at the same conclusion it took three times longer to identify.

2. Identification of ghost's movement and associated noises

Before Placebo

The team simply traced the sound of the "footsteps" back to the condenser air conditioning unit.

After Placebo

The A/C unit had been repaired but still made some noises when it started up. However, the team would remain in place at the back of the theater to observe (the ghost now approaches silently) rather than moving down to trace the source of the noises. Since the identification of a particular phenomenon requires the observer to be in the exact position of the witness to formulate a hypothesis, the team stayed put and was not able to identify the origins of the noises associated with the ghost, preventing them from finding a solution.

3. Physical contact

Before Placebo

This phenomenon was not in existence during the first investigation so there was no need to investigate it.

After Placebo

The second investigation expended a considerable amount of time and resources attempting to explain this phenomenon. Since this was a creation of myth building, they were unable to identify or locate a alternative explanation for the reported phenomena.

8. Implications on paranormal research

If the myth building alters the facts enough to prevent the identification of explainable phenomena, time and resources are wasted on investigating a location that actually has nothing unusual occurring. In a research context this would lead to data that is inaccurate, incomplete or erroneous as well as introducing variables that are believed to be paranormal in nature that are in fact quite normal. The impact would be a complete failure in the test results and sample data that is used in making the decision about the rejection of the null hypothesis is heavily flawed and inaccurate (type 1 and type 2 errors).

Type I and Type II Errors			
		What's true in Reality	
		The null hypothesis is true	The null hypothesis is false
Decision based on Hypothesis Test	Reject the null hypothesis	Type I error (rejecting a true null hypothesis) α	Correct decision
	Fail to reject the null hypothesis	Correct decision	Type II error (rejecting a false null hypothesis) β

A Type I error is also known as a false positive. In other words you make the mistake of assuming there is a functional relationship between your variables when there actually isn't.

A Type II error is the opposite: concluding that there was no functional relationship between your variables when actually there was.

Both Type I and Type II errors are caused by failing to sufficiently control for confounding variables.

Hypothesis testing is also the art of testing if variation between two sample distributions can just be explained through random chance or not. If we have to conclude that two distributions vary in a meaningful way, we must take enough precaution to see that the differences are not just through random chance. By not ruling out natural or manmade explanations the data could just be occurring by random chance but is blind to the researcher. The experiment wise significance level will increase exponentially (significance decreases) as the number of tests increases. The problem comes from false positives which are introduced by not identifying the explainable variables.