

Authenticity of Orbs

(by Klaus Heinemann, originally posted in May, 2007)

Critics routinely present two arguments with which they suggest to prove that orbs are "artifactual:"

- (i) reflections at dust particles or water droplets that are close to the camera lens, and
- (ii) internal reflections at surfaces of the various camera lenses from external incidence of image details back into the camera lens.

I want to begin with a response to a paper by Gary Schwartz and Katherine Creath, published in *J. of Scientific Exploration*, 2005, which started an exchange of e-mails on the subject between Gary and myself. I highly respect Gary as a thorough researcher in his field (biofield science). Their paper discusses these two well-known points, which they state explain that the "vast majority" (they suggest as many as 98%) of all orb pictures are "artifactual."

I am in agreement with regard to their *phenomenological analysis* of dust and pollen particles, moisture droplets, and alike. In my book section, ([The Orb Project](#) by Klaus Heinemann and Miceal Ledwith), I have discussed this subject and presented very similar results and conclusions. I have actually shown photos of (artifactual) orbs I deliberately produced at water droplets and dust particles. The main difference is only in our respective assumptions as to *how often*, i.e, in how many pictures showing orbs, this is actually a factor. It is my working hypothesis that the number of dust orbs is rather *infrequent and easily controllable and recognizable*).

With regard to their arguments of possible reflection mechanism pitfalls, I do not believe that they apply in any significant proportion to our photographs. However, I keep receiving numerous e-mails from others who have either heard my talk at Sedona or otherwise found out that I am doing research on orbs, sending me photographs that fit that description. (In many cases it has actually been quite hard for me to bluntly present to the senders the obvious conclusion that they are, in fact, seeing artifactual optical diffraction phenomena).

Without getting into great detail here -- I refer to my book for that -- I would like to cite the following reasons why my working hypothesis is that stray reflection phenomena are, in my situation (as well as in the great majority of the orbs recorded by others) controlled or non-existent:

- (a) I have seen orbs indiscriminately with expensive (4-10 megapixels) and less expensive cameras (3.3 mp was lowest I used). A rationale that cheap camera lenses produce more of this effect is difficult to uphold.
- (b) I have routinely taken multiple photos from the same camera position with greatly varying results of orbs (number and position), including many cases when *pictures with no orbs and pictures with many orbs alternate*. There is no reasonable logic to uphold that in one situation there might be many dust particles or water droplets in the air near the camera, while a few seconds later in the very same location there are none.
- (c) More often than not, reflective objects were simply and demonstrably not present in the field of view or anywhere nearby.*

- (d) Our stereo experiments all but rule out any role played by reflecting objects. These experiments showed orbs, with *experimentally equal probability*, in camera (A) providing the flash and in the "slave" camera (B), which used the flash from the camera (A), which was mounted several inches away and delivered essentially no light from the flash in the immediate vicinity of camera (B) to illuminate dust particles or droplets in front of it to produce false orbs.*
- (e) I have recorded orbs that are eclipsed by an object between the orb and the camera. An example is given in the picture below (from left to right: contrast-enhanced; color-enhanced; virgin photo). It shows the head of a person clearly positioned between the photographed orb and the camera, making it impossible that the orb could be a dust or water particle a few



inches away from the camera lens, or a stray reflection from anywhere.

(f) I have at numerous occasions photographed the same orb, changed in position, size, and rotation in successive pictures. This cannot be explained by dust particles, droplets, or stray reflections.

(g) Also, I suppose one would have to expect that stray reflections usually cause *multiple* "ghost images," due to reflection at multiple lens surfaces. Such multi-reflection images are commonplace if sunlight can partially enter the camera lens. In all my cameras, the flash is recessed with respect to the lens, excluding any possibility of direct stray light from the flash entering the camera lens and causing reflections. If they did, *every* image would have to show the same stray light reflection phenomenon ...

(h) Furthermore, Miceal Ledwith (co-author of my book **The Orb Project**) took 100,000+ orb photos under (night sky, outdoors) conditions, where stray reflections from objects in the field of view can be categorically ruled out.

(i) There is evidence presented by another person who gave a keynote lecture at the Orb conference in May, 2007, in Sedona, Joan Ocean, who presented orb photos taken underwater. While any arguments regarding dust particles or reflections would have to be inherently entirely *different* under those experimental conditions, she was able to show images of orbs that looked identical to those taken by us and multitudes of other people in air and seemed completely unaffected by the circumstance that they were taken underwater.

(j) Last but certainly not least, I have had independent interesting collaboration and corroborating assessments from several highly trusted intuitive/psychic persons.

In conclusion, I entirely concur with the suggestion of critics that it is important that the public must be educated to use proper discernment in the interpretation of orb-like features in their digital photographs. However, to state that orb images are generally artifactual because a few of them can indeed be identified as such is about as meaningless as a statement that, because a few artifactual 20-dollar notes are indeed around, the 20-dollar bill in your wallet is not worth its face value ...

Note added on 11/20/2015:

* Meanwhile, also experiments were taken with cameras using an external flash pointing upwards, thus deliberately not illuminating the space in front of the camera, therefore not providing light that could be reflected at airborne particles near the camera objective lens.