The orb phenomenon: bridging to the world beyond?

By Dr Klaus Heinemann

Since the advent of the digital camera, the proliferation of ‘light circles’ mysteriously appearing in photographs has risen to remarkable levels. These ‘orbs’ are now the subject of intense debate, and Dr Klaus Heinemann has become one of the world’s leading experts on the subject, drawn from his own personal work and dedication as revealed in his various publications, referenced in this article. Dr Heinemann was born and educated in Germany. He holds a Ph.D. in experimental physics from the University of Tübingen and has worked for many years in materials science research at NASA, UCLA, and as professor at Stanford University. For several decades, Dr. Heinemann has concentrated on mending the commonly perceived rift between science and spirituality. We are delighted he has accepted our invitation to write this comprehensive update for Light in which he expresses his conviction that orbs are nothing less than emanations from spirit beings. www.theHeinemanns.net

During the last decade, thousands of people all over the world have been noticing opaque, mostly circular features in their digital photographs, making them wonder what they mean. They come in various sizes, intensities, and quantities - see pictures 1-3 (Pg 6). In a 2007 book, The Orb Project (Beyond Words Publ., Atria Books, Simon&Schuster, available at Amazon.com) Dr. Miceal Ledwith and I examined these phenomena in detail and presented suggestions about what they might be and how they get captured on photos.

In a subsequent (2010) book, Orbs, Their Mission and Messages of Hope (Hay House Publishers; available at Amazon.com), my wife, Gundi Heinemann and I, postulated that these orbs are not just random, meaningless features in photos, but that they appear for a demonstrative purpose. We argue that the orbs are witnesses of a realm of great instantaneous knowledge and consciousness beyond our physical world. In these times of unprecedented challenges to all of us and to the survival of our support system, the Earth, at large, do unassuming spheres of light in digital photographs remind us that answers, creative solutions, and help from the domain beyond are available? Are the emanations from messengers of hope?

Since The Orb Project was published in 2007, numerous other books on the subject of orbs have also appeared. Most present beautiful orb photos without specific far-reaching conclusions; others go as far as identifying certain orbs as specific angels. (Turn to page 7)
Picture 1: A regular “visitor” in our backyard

Picture 2 (right): During a celebration with Joao de Deus in Abadiania, Brazil: beings on the other side of reality are obviously enjoying the proceedings. (Every photo which we, and many others, took at this event, shows such multitudes of orbs).

Picture 3: Accompanied by multitudes of light beings
Authenticity of orbs

(From page 5) Because of the importance we attach to orbs and their meaning, we will first summarise our findings with regard to the authenticity of orbs. For a more detailed discussion, which includes many other relevant orb photos, see chapter 1 in *Orbs*. The most prevalent argument raised by critics against the authenticity of orbs is that they believed them to be flash reflections off airborne particles positioned in close vicinity of the camera’s lens. This explanation, which is at times forcefully presented - not infrequently attempting to ridicule the photographer - cannot be upheld for numerous reasons, including an experiment by Drs. Ulrich Volz and Andreas Burkhard (*Southern Germany*), in which an orb was photographed under clean room conditions, i.e., in an environment where airborne particles of the size that could explain reflection effects simply could not have been present (see photo 65 in *Orbs*).

Other new, stringent experimental evidence ruling out the ‘airborne particle reflection’ argumentation, which requires that the flash reflection occurs within a distance of just a few centimetres from the camera (the ‘orb zone’), includes:

- Eclipsing of the orb by physical objects between it and the camera, proving that the orb is actually several metres, not centimetres away from the camera (see photo 60 in *Orbs*);
- Orbs photographed in rapid motion - orders of magnitude faster than airborne particles in the orb zone would ever be able to move (see picture 4), in which the orb was displaced over 50 times in discrete steps, all happening during the 1/1000 second of the duration of the camera flash;
- The sharpness of orb contours, especially when photographed with a telephoto lens, where the depth of field is strongly reduced and objects near the camera lens would inherently be significantly blurred (See picture 5), showing an orb taken in telephoto.
camera mode; the sharpness of the orb image indicates that it cannot possibly have been positioned anywhere near the lens of the camera;

- Orb photos taken on conventional emulsion film and/or without flash (e.g., see Ed Vos, *Orbs und andere Lichtphaenomene, Neue Erde, 2010, Abb. 89 - 96);

- Orb photos taken with an external flash that is pointed away from the scenery photographed, thus not possibly illuminating airborne particles in close vicinity of the camera lens.

Other arguments brought forth by some critics centre around impurities or abnormalities related to the camera or electronic recording device. This class of arguments can be dismissed with several pertinent facts, including numerous orbs photos taken by the Dutch professional photographer Ed Vos (see above ref), as well as many others, on conventional emulsion-type photo film.

Yet the most significant argument in favour of the authenticity of orbs is that there is striking evidence that orbs often show up in certain strategic photos and strategic positions within a photo, indicating that they are much more than random reflection effects. The non-physical entities, of which we hypothesize that orbs are emanations, may well use the particular positioning of orbs in photos to try to communicate with the people taking them, or with those seeing or studying them. Much of what we presented in *Orbs* is devoted to this subject. The evidence of strategic appearance and positioning is so convincing that it is all but impossible that all these incidences could be rationalised away as statistically random, anecdotal occurrences.

**Intelligence behind the appearance of orbs**

In a multitude of ways it can be demonstrated from orb photos that there may be great intelligence behind that which produces the orbs. We cite a few examples:

- We conducted an experiment where we wanted to investigate if the camera type and/or perhaps camera conditioning might play a role in the rate of recurrence with which orbs would appear in the photos. Three very different digital cameras were mounted on a common support, and their shutters were released at the approximate same time. We took 324 photos (108 photo events with three cameras) during a two hour spiritual seminar. Within the statistical error limits, each photo event - consisting of one photo taken with each camera - produced exactly 1.0 orbs, and each camera produced exactly one third of the orbs. It is statistically astonishing that orbs appeared in 108 photos, not in more and not in less, and it is even more perplexing that these orbs were evenly distributed over the three very different camera types.

- In an attempt to obtain stereo-photos of orbs to determine their position in space, we synchronised two cameras, positioned 10 cm apart, such that the flash of only one of the cameras was released exactly at the time when the shutter of the other camera, whose flash was not released, was open. One flash, thus, exposed both images. No stereo images of orbs were obtained. However, within the statistical error limit, the same number of orbs was recorded with each camera, but in apparently random positions. This experiment not only disproves the ‘airborne particle theory’ of critics but, more importantly, signifies an intelligence operating behind the appearance of orbs, telling us that, while the attempt to take stereo photos of orbs was not ‘granted’ successfully, the experiment nevertheless did have a non-trivial outcome.
The orbs would, with equal probability, beam either into one or into the other camera - one significantly further away from the flash than the other - but not simultaneously into both.

In corroboration with other experiments we conclude that, for energetic reasons, orbs do not emit light isotropically (in all directions) but rather with laser-like unidirectionality.

- Numerous orb enthusiasts have reported that the rate of recurrence with which orbs have appeared in their photos markedly increased since they detected their first orb. For ourselves, the ‘orb yield’ increased about 100-fold within a few days and has stayed constant ever since. Given the energetic effort on the part of the intelligence behind orbs, it is understandable that they would concentrate their effort on orbs on those persons’ photos of whom it could be reasonably anticipated that they will respond, such as with efforts to understand the orb phenomenon and to look into, and report about, the messages found.

- To numerous orb photographers, orbs appear in the form of human-like faces, to others in the form of mandalas or symbols of various kinds. Our research shows that there is strong evidence that the orbs - or more appropriately the beings from which orbs are emanations - will select the form of appearance that is most congenial to the person(s) viewing the photo, so the probability of delivering the intended message to whom it is directed is enhanced.

- The appearance of orbs in strategic positions, as mentioned above and further described below, is arguably the most significant indicator of intelligence behind orb photos.

**Examples of orbs communicating through strategic positions or appearances**

In *Orbs, Their Mission and Messages of Hope*, we have described in numerous examples how orbs can deliver messages to the persons taking or viewing the photo. A singer or a charismatic speaker has an orb at her/his mouth; a teacher at his hand with which he emphasises a point; a healer at his hand or head; an athlete at her heart or where else she is being told by the unseen reality to be mindful and not over-exert herself; an orb calls an important poem to the photographer’s attention; children are surrounded by orbs, indicating their special protection; and in numerous occasions, where miraculous physical healing was experienced, orbs reminded us - or the photographer - that the healing originated in the world beyond (see, for example, picture 6 (pg 10), showing four classmates - the 12-year old girl with an orb on her chest had received a heart transplant 10 years ago). In an extraordinary example, an orb attached to a book high up on a shelf in her library ended up turning an accomplished author’s life away from a path toward an evidential tragic outcome (see photo series 55-57 in *Orbs*; this story is being published as a book by Freda Chaney under the title *George Eliot Lives*).

A nice example of orb communication is given in picture 7 (pg 10). Knowing the story of the mentally handicapped girl, how affirming is this photo? Through motion creating a ‘trail’ between the brain and the eyes, a connection of visual and mental cognition is portrayed. It is as if communication was made assuring that the consciousness in the unseen reality is very much intent on helping the girl, and is actually doing it, and is trying to tell us that everything is fine! It is as if a direct communication between the *Light Being* manifesting as the orb and the girl exists. And it is not by random occurrence that in another photo (picture 8 pg 10) the same girl is shown attentively looking at an orb, as if she can see it, and mentally converses, with it.
Interiorities of orbs

Orbs appear in different forms. In most cases, they take a shape that very much resembles that of a mandala: nice, pleasing, not entirely symmetric interior features, perfectly round. At times, less frequently, people recognise a face in them. Initially I myself had a hard time believing that orbs showing faces would be for real - until I photographed one with such a distinct face that the question changed from “is it a face?” to “who is it?” (see photo series 54 in Orbs) An analysis of such photos shows that, if available, background features are prudent to enhance the facial features, as if to minimize the number of photons required to produce the orb image. These considerations are explained in detail in Orbs.

Orbs and subtle energies

One of the most significant findings of the study of the orb phenomenon appears to be related to subtle energy. The orbs give us some interesting information about the energies available to conscious entities in their non-physical reality. Many people hold the understanding - or belief - that the non-physical realm commands over vast amounts of energy, so much so that, by comparison, it dwarfs all physical energy. While we agree that the physical realm likely comprises only a miniscule part of energy at large, it appears that the rest of this common understanding of the energetics of processes in the two realities is very different.

One distinguishes between physical, or ‘heavy’ energy and light, or ‘subtle’ energy, the latter of which is applicable to the non-physical realm. Scientists who have attempted to find a theoretical understanding of the nature of consciousness agree that, expressed in units of physical energy, units of subtle energy are extremely small. For the sake of simplicity, we...
can consider that one watt-second (1 Ws) is a small amount of physical energy which is very easy for humans to ‘produce’ and deal with, and one billionth of one billionth of that amount (10-18 Ws) might be an equivalent ‘easy to produce and deal with’ amount of subtle energy in the non-physical realm.

The exact order of magnitude of this typical difference between physical and subtle energy forms is probably quite irrelevant. Much more important is, in what form - where and how - these energies are employed. Are we comparing watt-seconds with watt-seconds, or do the energies in the non-physical realm occur in a substantially different, perhaps more potent form? There appears to be agreement among people working in this field that the latter is the case. The driving force in the non-physical realm is - albeit still in a form of ‘energy’ - consciousness. As we pointed out in my 2004 book “Expanding Perception” (available soon at Amazon.com in a completely revised and expanded edition), one can directly formulate an analogy between physical energy (i.e., energy on the physical level) and consciousness (as energy on the non-physical level).

This analogy leads to interesting conclusions. Spearheaded by biologists and alternative medical professionals, it has become common understanding that each cell of every living biological organism has some sort of consciousness. It is this consciousness which directs the cell how to function in its natural context; how to perform for the benefit of the organism which it is a part of. We now know that, ultimately, many diseases can be derived from a loss of this cellular-level consciousness. While the cell itself, even though very small, comprises a relatively huge body of physical energy (when looked at its mass-energy equivalence, E=mc2), the amount of subtle energy (i.e., consciousness) which directs its functioning is very, very minute. It is, in fact, not unreasonable to assume that it is easily within the sphere of influence of conscious Light Beings in the non-physical reality to ‘produce’ such small amounts of energy and put it to ‘physical’ use. This is then the mechanism by which the energies of the non-physical realm can be reckoned to be able to exert a relatively huge influence in the ‘heavy’-energetic physical reality. This would be comparable to computer software in relation to computer hardware: an energetically minute difference between a correctly functioning or a malfunctioning computer instruction - a minor software hiccup - can cause a melt-down of a nuclear power plant.

Recording subtle energies

Digital cameras with CCD charge plates (i.e., the type used in the vast majority of digital cameras) are highly light-sensitive devices, approaching single-photon detection sensitivity. Such cameras can produce a clearly recognisable orb image if the orb consists of just a few hundred photons, which is the energy equivalent of about 10-16 Ws (watt-seconds). The energy required to produce an orb image thus approximately compares to the energy required to keep your computer running for one billionth of one billionth of a second. Give or take a couple orders of magnitude, the energies required to record orbs are thus in the very domain of subtle energies.

While this is a very small amount of physical energy, it has been demonstrated by others, e.g., Dr. Tiller (William A. Tiller, in Psychoenergetic Science, avail. at Amazon.com) and Dr. Emoto (Masuro Emoto, in The Hidden Messages in Water, (editions, available at Amazon.com)).
that the realm of the human mind, which is not physical - at least not physical in the conventional definition of physics which imposes boundaries of space and time - can produce physical effects that by far exceed this energy requirement to record an orb photo. For example, Tiller was able to substantially increase or decrease the in-situ measured PH value of water solely by (intensively) concentrating (‘meditating’) on this to occur. Emoto is known for his documentation of the impact of human thought on the microscopic appearance of ice crystals. Backster demonstrated a physical reaction in the form of energy being emitted by plants upon the mere intent of a person to do, or not to do, certain actions.

These ‘human’ thought energies are similar in magnitude to those of orbs in photos. However, these experiments require substantial equipment and expertise to demonstrate. In orb photography, this very small amount of physical energy (a few photons) is enough to produce an effect that is very clearly visible, can easily be stored and retrieved for unlimited re-viewing and re-printing, does not require specific technical knowledge to be recognised, and can be seen/recorded with equipment that is relatively inexpensive and readily available to anybody for purchase over the counter all over the world - and is actually owned by hundreds of millions of people and used as a household item.

The advent of the digital camera has thus heralded an unprecedented possibility for conscious entities in the unseen, non-physical, reality to demonstrate that they are indeed for real. We can assume that - and indications actually are - that it is generally difficult for beings from the non-physical realm to produce physical energy; therefore, the smaller the energy required for recording, the better. We see many more low-energetic orbs, formed by just a few tens or hundreds of photons, than high-intensity orbs. For example, the orb shown in picture 1 may well have required $10^4$ photons for recording.

The advantage of digital over conventional emulsion film photography is that, in addition to being much more light sensitive, digital photos can very easily be processed to make even very low-energetic orbs appear with high contrast. These two enormous advantages are likely the reason why the intelligence behind orbs, i.e., the non-physical entities of which orbs are emanations, has generally not bothered with making themselves known in the form of orb images in photos until the advent of digital cameras. Furthermore, our experiments indicate that orbs appear to emit their photons unidirectionally, with laser-like precision, into the camera photographing them, rather than emitting them isotropically (in any direction), which would be energetically wasteful.

**Insights from orbs research**

The orbs have given us some remarkable insights. We understand them to be emanations from intelligent entities outside of our physical reality. With them, it is hard to deny that what we can explain with current textbook physics is all there is. They have opened a door to the appreciation of the not understandable. The mystical has become just a bit more real. They have, we hope, ever so much narrowed the gap between the ‘healthy’ skeptics – those among them who leave a door open to discovery of the seemingly impossible - and people who need no further explanation. The proverbial chasm between the natural sciences and spirituality is narrowing. Our work with the orbs started in 2004, and thousands of poignant orb photos are
in our computers. They are augmented by what is estimated to be millions of orb photos taken by tens of thousands of photographers all over the world - most with CCD-type digital cameras, but many also with the more expensive CMOS-type cameras, and some even with conventional emulsion film cameras. The sheer number of orb photos, as well as numerous solid arguments, render all but certain that a high percentage of all orb photos show real, not artifactual (caused by an artifact) recordings, of phenomena originating from beyond our physical reality.

We consider a significant finding of our work with orbs to be that we are not just seeing some random, albeit interesting, phenomena but that many of these orbs can be understood as emanations of highly evolved non-physical entities with specific intent. Their specific appearance on request, and their non-random location in photos point to specific messages being imparted to the photographer, the person(s) photographed, and/or specific groups of people or humanity at large. The overall tone of these messages is one of great interest in the welfare of humanity, including help and healing on all levels of human existence - the mental, emotional, spiritual, and very much so also, the physical.

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There has never been a time on Earth like we see today. What we need are more ways to experience our interconnectedness - it is a precursor to deep love.

So in this quickening light, with the dawn of each new day, let us look for love. Let us no longer struggle.

Let us ever become who we most want to be. As we begin to be who we truly are, the world will be a better place.”

John Denver