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Empirical Evidence Supporting Macro-Scale Quantum Holography in Non-Local Effects

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Abstract: This paper presents a plausible theory of quantum holography to explain heretofore unexplained non-local events and by revealing new empirical evidence documenting the existence of such effects on a macro-level.

Keywords: holography, distributedness, DelaWarr, fMRI.

Introduction

Certain alternative healing therapies are theorized to involve non-local effects that utilize an etheric "élan vital" or vital energy. Proponents of these techniques have claimed that this previously unrecognized force infuses organisms with life sustaining energies and/or balances existing energies resulting in improved health. This long-standing and widespread belief in the existence of an etheric force, called "prana" by the Hindus, "chi" by the Chinese, and "ki" by the Japanese, is the source most often associated with the "soul, spirit, and mind." In fact, there are references made to human energy fields or the body's aura in 97 different cultures, according to John White in his book "Future Science."[1]

Equally mystifying and unexplainable are the plethora of parapsychological (psi) phenomena that are often referred to as extrasensory perception, precognition, remote viewing, etc., and that have evaded scientific description. Modern scientists have repeatedly sought evidence for these unexplained psi phenomena. Although staunchly criticized by mainstream science, meta analysis of the psi experiments has demonstrated that the probabilities of the reported results occurring by chance was less than a trillion to one.[2]

Two primary obstacles remain for the proponents of psi phenomena and non-local effects:

1) a generalized theory sufficient to describe the quantum mechanism of action of the observed physical effects on a macro level, and

2) empirical and replicable evidence that non-locality exists among macro-scale physical objects.

This paper addresses these issues by presenting a plausible theory of quantum holography and revealing new empirical evidence that documents the existence of such effects on a macro-level.

Quantum Holography

The theories of a holographically-based universe were originally championed by two of the world's most eminent thinkers: physicist David Bohm, a protégé of Einstein's, and Karl Pribram, a highly-respected neurophysiologist from Stanford University. Their holographic model received dramatic experimental support in 1982 when a research team led by physicist Alain Aspect in Paris demonstrated that the web of subatomic particles that compose our physical universe, possesses what appears to be an undeniable "holographic" property.

Much research exists regarding holographs in nature. These studies show that dolphins, bats, fish, flies, birds, and humans all process sensory information holographically. Dolphins and bats actually create holograms by transmitting acoustic reference and object waves that are then reflected back to the mammal for neural processing.[3] In humans, studies in chemical oscillations and oscillation cellular dynamics strongly indicate that the holographic concept exists not only on the neural level but also on the cellular and molecular levels.

Holographs have a property called "distributedness," which means that any fractional portion of the recorded hologram contains sufficient information to reconstruct the complete original 3-D information pattern. Consequently, it can be posited that within humans that holographic biophysical radiation can be present in blood, sputum, hair, and other small subsets of the human subject due to this holographic property of distributedness.

Russian scientists have likely measured this holographic bioenergy without discovering its holographic nature. Their research, which suggests the existence of a previously undetectable subtle radiation linked to physical DNA may support the hypothesis of an intact energy field containing relevant organismal information that is capable of being coupled to an optical imaging device. The DNA optical radiation effect was first observed in Moscow at the Russian Academy of Sciences as a surprise effect during experiments measuring the vibrational modes of DNA in solution using a sophisticated laser photon correlation spectrometer.[4,5] The Russian experiments revealed that when DNA was removed from the scattering chamber, post-measurements looked distinctly different from the ones obtained before the DNA was placed in the chamber. This observation was contrary to the expectation that the autocorrelation function would return to pre-test baselines.

After duplicating the initial experiment many times with re-calibrated equipment, the scientists were forced to accept the working hypothesis that some new field structure was being excited from the physical vacuum. In turn, this phenomenon was dubbed the "DNA phantom" in order to emphasize that its origin was related, but not physically linked, to the actual DNA. The new feature that makes this discovery distinctly different from many other previously undertaken attempts to measure and identify bioenergy fields is that the field of the DNA phantom has the ability to be coupled to conventional electromagnetic fields of laser radiation and, as a consequence, can be reliably detected and positively identified using standard optical techniques.

"The percipient, or system sensing the information, and the source of information are in a resonant relationship for the information to be accurately perceived. . . . discovery of the non-local quantum hologram created by the absorption/ remission phenomenon and characteristic of all physical objects provides the first quantum physical mechanism compatible with macro-scale three dimensional world as we experience it.... Non-locality and the non-local quantum hologram provide the only testable mechanism discovered to date which offer a possible solution to the host of enigmatic observations and data associated with consciousness and such consciousness phenomena. Schempp (1992) has successfully validated the concept of recovery and utilization of non-local quantum information in the case of functional Magnetic Resonance Imaging (fMRI) using quantum holography. Marcer (1995) has made compelling arguments that a number of other chemical and electromagnetic processes in common use have a deeper quantum explanation that is not revealed by the classical interpretation of these processes. Hammeroff (1994) and Penrose have presented experimental data on microtubules in the brain supporting quantum processes."[6]

Evidence of Macro-Scale Quantum Holograms

One of the most successful subtle-energy researchers of all time, British engineer George DelaWarr, built a remote imaging camera in the 1950's. Using only a test object provided from the subject such as a small blood, sputum, or hair sample, this device photographically images the subject's internal conditions at a distance, with a high degree of accuracy.

An unique feature of the DelaWarr system is that it is able to detect diseases in the pre-clinical stages prior to detection by conventional techniques such as physical examination, X-ray, CT scan, or Magnetic Resonance Imaging. The theory for this is that the DelaWarr system is detecting and recording the known quantum holographic information, which provides a specific informational frequency available via the test object for a specified disease and/or state of existence. The frequency information associated with a particular disease and/or condition exists at the very beginning of the corruption and/or transition process, even before physiological changes have occurred on the macro-scale. It is only when a designated frequency is present that an image will be detected and photographically recorded. If this unique frequency is not present, no image will be recorded; thus, leaving the photographic material blank. A common analogy would be tuning a radio dial to 101.3 MHz and receiving nothing because no radio station is transmitting at that frequency and in that region.

Preliminary Research

In 1951, a research project was instituted at St. Bartholomew's hospital in London to study the applicability of using the DelaWarr system to detect various disease conditions under controlled conditions. A physician was trained to use the system, and the camera was transported from the DelaWarr Laboratories to the hospital. More than 400 remote images were captured using a drop of blood as the "witness," or test object, for each patient. In order to control for fraud and/or deception in obtaining the images, some of the images were produced with the doctor "blinded" to the patient's condition. In these randomly selected cases, the validating data were abstracted from medical records and/or autopsy files after the pertinent remote images were produced. This safeguard was implemented to ascertain whether accuracy in image formation was linked to the operator's prior knowledge of the patient's condition. These tests demonstrated that pre-knowledge was not a factor in producing diagnosis-quality photographs.[7]

A recent discovery by the author reveals that the DelaWarr images vary from X-rays in that they produced a spatially-encoded three-dimensional (3-D) effect (see Photograph 1A), similar to those possible via fMRI, which is detectable with the use of VP-8 image analysis technology (see Photograph 1B) and computerized digital 3-D software (see Photographs 1C, 2C).

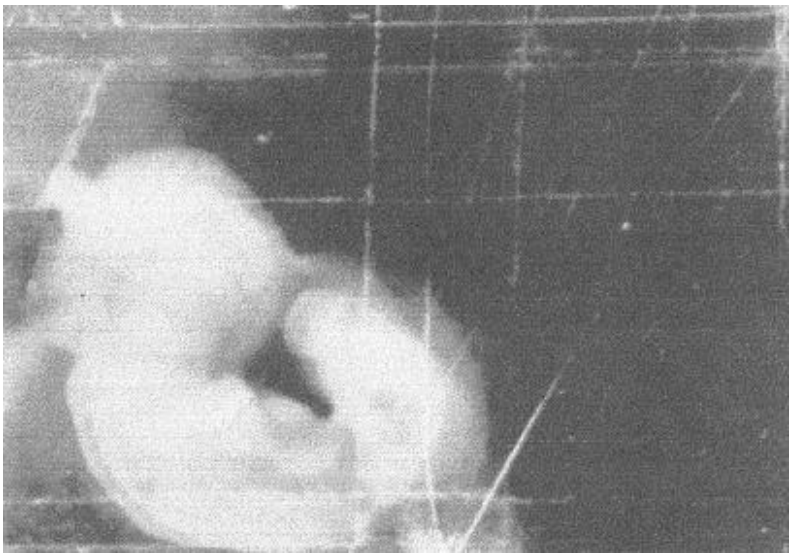


Photo 1A. This original DelaWarr photograph was taken at the request of a distant patient who wished to determine her precise stage of pregnancy. The photograph reflected the fetal development between 8 and 12 weeks gestation (later confirmed by delivery date). a significant amount of skeletal structure can be seen in this image. Reprinted from Day L. (with DelaWarr G.) New Worlds Beyond the Atom. Republished by EP Publishing Limited, 1973; Fig. 30.

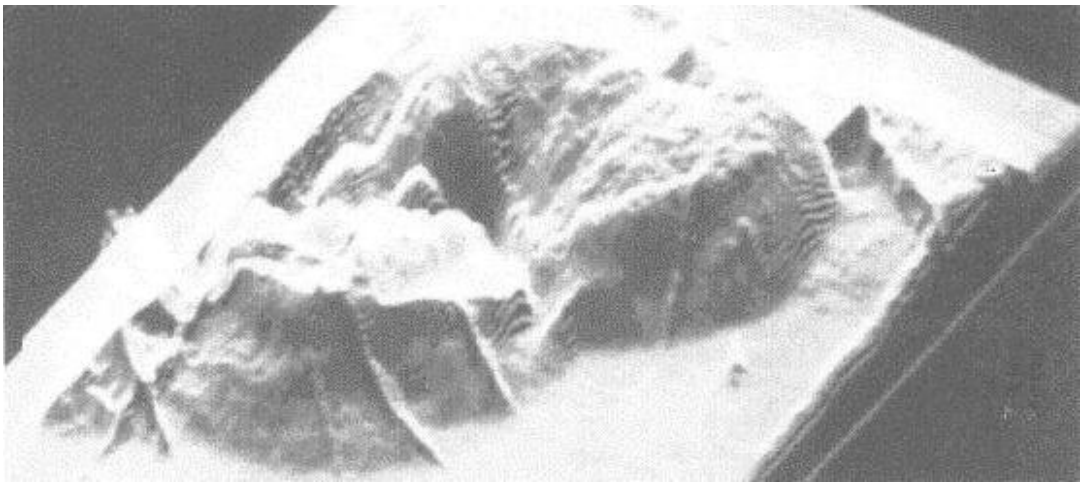


Photo 1B (above). This rendering of the original DelaWarr photograph (1A) was created with the usage of a VP-8 analog analyzer that converts image density (lights and darks) into vertical relief (shadows and highlights). A normal photograph does not result in a three-dimensional image but in a rather distorted jumble of "shapes." Note the distinctive curvature of the fetus' head.

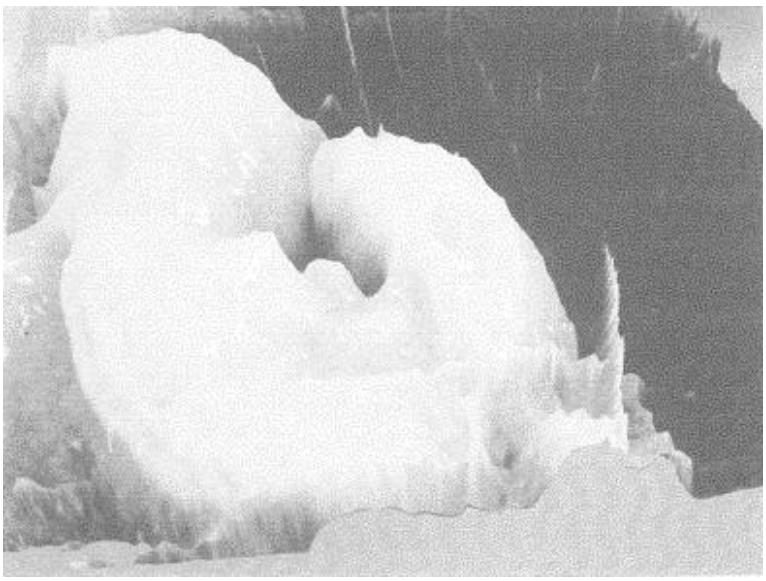
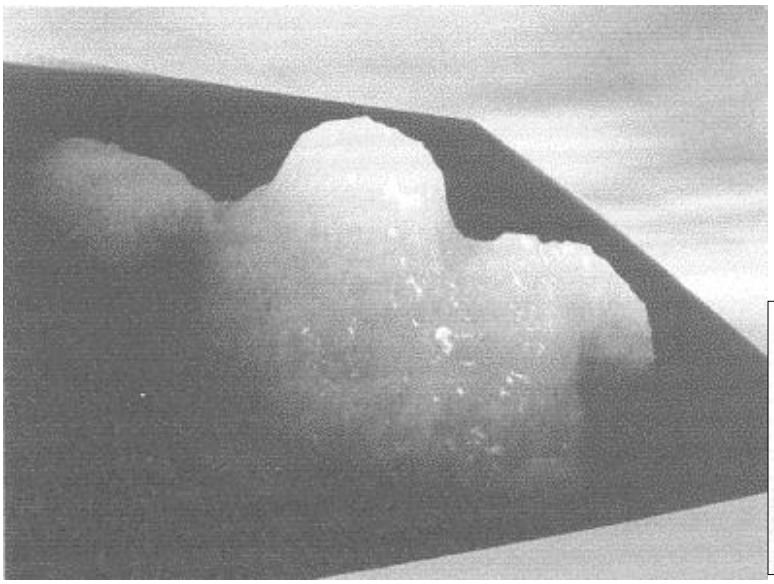
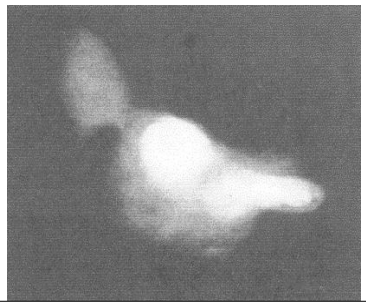


Photo 1C (above). This rendering of the original DelaWarr photograph (1A) was created with the usage of Bryce4® software that digitally converts image density (lights and darks) into vertical relief (shadows and highlights). Note the additional spatial detail and three-dimensional nature of the photograph.





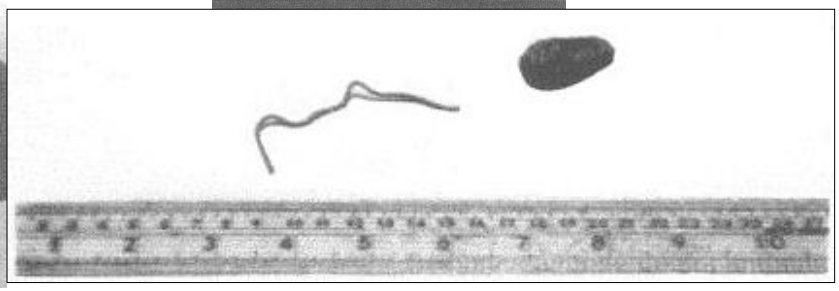
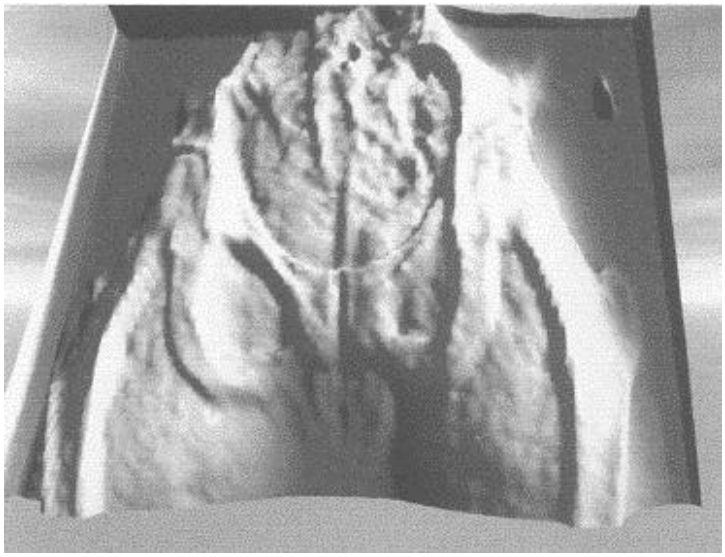


Photo 2C (above left) shows a 3-D examination of the wire's curvature (shown above in photo 2B, bottom right). This is an aspect of evaluation that is unavailable through the simple 2-D photo analysis (shown above in photo 2A, top right). This characteristic highlights the unique spatial encoding available in the DelaWarr photos and validates the authenticity of the true nature of the collected images.

The VP-8 Image Analyzer is an analog device while the commercially-available Bryce4® Software is digital. Both techniques convert image density (lights and darks) into vertical relief (shadows and highlights). When using either the VP-8 or 3-D software systems, a normal photograph does not result in a three-dimensional image but in a rather distorted jumble of "shapes." X-ray images, although spatially superior to routine photographs, are also characteristically distorted (see Photograph 3B below).



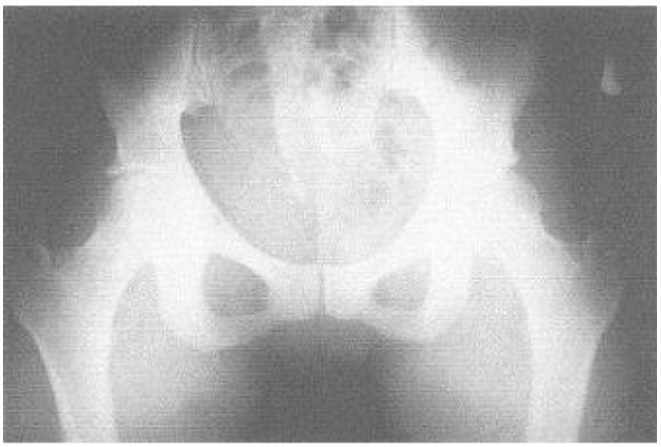


Photo 3B (left). Bryce4® 3-D rendering of Standard X-ray of a female pelvis (photo 3A above right). although spatially superior to routine photographs, X-rays are also characteristically distorted. Note the flattening of the bones and diffuse solid tissue.

Yet the images of the DelaWarr photos yield very accurate and well-formed three-dimensional reliefs, as clearly evident in the representations that provided for Photographs 1 and 2. The observer can select numerous angles from which to review the captured information as well as multiple 3-D relief patterns. Full rotation around the organ and/or object is possible with the digital computer software, thus permitting significantly enhanced medical assessments.

Most convincing of the true holographic nature of these images is the fact that certain information about the object is only available on the 3-D reconstruction and not in the original image produced by DelaWarr. For instance, in Photograph 2A, the curvature of the wire lodged in the cow's stomach is represented in the 2D image as a highlighted line. However, upon analysis of the 3-D photograph, the distinct curvature of the wire is clearly delineated (see previous Photograph 2C).

Mechanism of Operation

To better understand the operation, one must first ask: what is the relationship between the test object and the subject? Second, how does the test object carry and transfer complete information of the subject? Third, how is this information optically obtained by the DelaWarr system? One theory is that the test object contains a complete quantum hologram that can affect optical systems and, under the right conditions, produce a holographic-like image. To make a hologram, two optical waves are needed: a reference wave and an object wave. These two waves make a 3-D holographic image by creating an interference pattern frozen in space-time. Both waves are spatially and temporally coherent at the moment of creation, then separated. The object wave is directed towards the object and it experiences intensity changes and phase-shifts. Normal 2-D photographs record only the intensity changes of the object wave and not the phase-shifts. However, when a reference wave is directed back towards the emitted object wave, an interference pattern is created that records the phase-shifts of the object wave relative to the reference wave. These phase-shifts are what produce the apparent freezing in space-time of the object's 3-D image. "In the absence of space/time (electromagnetic) signals to establish the phase-conjugate-adaptive-resonance (pcar) condition and to provide a basis for decoding the quantum hologram, an icon representing an object seems to be sufficient to allow the brain to focus on the object and to establish the pcar condition. However, a reference signal is also required to provide decoding of the encoded holographic phase dependent information. Marcer (1998) has established, using Huygen's principle of waves and secondary sources, that any waves reverberating through the universe remain coherent with the waves at the source, and are thus sufficient to serve as the reference to decode the holographic information of any quantum hologram emanating from remote locations."[8]

The question still remains: how is the quantum holographic pattern recorded with the DelaWarr system? Holography requires a reference wave being redirected towards the object radiation wave in order to recreate the holographic image. With the DelaWarr system, a reference wave originating from the directed intention of the camera operator is put in circuit with the object wave. These two radiation waves are combined creating a holographic interference pattern which is recorded on a photographic material. The following experiment validates the possibility of this information transfer between the test object, camera operator, and photographic image.

In 1993, an international group of six scientists, including IBM physicist Charles H. Bennett, demonstrated that photon quantum informational characteristics can be transmitted instantaneously between two laboratories independent of space-time. In brief, they found a way to scan and leave out a subset of information from object A (test object radiation wave), while causing the remaining (unscanned) part of the information to pass into another object C (photographic material) which has never been in contact with A. The unscanned part of the information was conveyed from A to C by an intermediary object B (the reference radiation wave or camera operator radiation wave), which first interacts with C (the photographic material) and then with A.[9]

This subtle kind of information transfer, also called the Einstein, Podolsky, Rosen (EPR) correlation or "entanglement," has been partly understood since the 1930's when it was discussed in a famous paper by Albert Einstein, Boris Podolsky, and Nathan Rosen. In the 1960's John Bell showed that a pair of entangled particles, which were once in contact or coherent but later move too far apart to interact directly, can exhibit individually random behavior that is too strongly correlated to be explained by classical statistics. Experiments on photons and other particles have repeatedly confirmed these correlations, thereby providing strong evidence for the validity of quantum mechanics. Another well-known fact about EPR correlations is that they cannot by themselves deliver a meaningful and controllable message. It was thought that their only usefulness was in proving the validity of quantum mechanics. However, now it is known that, through the phenomenon of quantum space-time independent coherence, specific information can be correlated through certain processes. Quantum information that is extremely refined and delicate can be delivered by non-quantum or Newtonian methods.[10]

Recent experimental data (1997) supports the Bennett *et al.* conclusions.[11] It is believed that this A, B, and C correlation may be responsible for the interaction occurring between the subject, the test object, the operator of the camera, and the camera itself that is used to produce the images.

Conclusion

The case for mind/mind, mind/matter, and mind/energy interactions is well documented with staggering probabilities against chance having produced the results. "The discovery of the non-local quantum hologram, which is theoretically sound and experimentally validated in at least one application, the fMRI, is sufficient to postulate that the quantum hologram is a solution to the foregoing enigma. Further, recognition that the quantum hologram is a macro-scale, non-local, information structure described by the standard formalism of quantum mechanics extends quantum mechanics to all physical objects including DNA molecules, organic cells, organs, brains, and bodies. The discovery of a solution which seems to resolve so many phenomena, and also that points to the fact that in many instances classical theory is incomplete without including the subtle non-local components involved, suggests a major paradigm change must be forthcoming."[12]

Further, the recent discovery of the information-containing 3-D spatial-encoding within the original DelaWarr remotely-obtained images, provides compelling evidence that macro-scale quantum holography is, indeed, a replicable and acceptable phenomenon. The intention required by the operator of the DelaWarr system to extract usable information from a quantum hologram forces us to conclude that evolved consciousness is antecedent in producing measurable non-local causal events.

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