

## Toward a physics of materialization

William C. Treurniet and Paul Hamden, January, 2013

Summary: *Zeta extraterrestrials were asked in interviews via the medium Paul Hamden how energetic forms are manifested as physical objects. They responded that consciousness can form an object in a realm of finer matter. The object is combined with the “energy of existence” and appears as ectoplasm or as an apport in the gross matter realm where we live.*

*The source material for ectoplasm is primarily dissociated water from the medium's body. The hydrogen and oxygen ions are rearranged in a “framework of materialization” as a step toward completing the etheric structure of the intended molecules. Cellulose is suggested as a possible candidate for ectoplasm since over 70 percent of its atoms are the constituents of water. The missing carbon atoms specified by the etheric template would also be taken from the body or else created from fine matter by spirit consciousness. Matter exists on a spectrum of granularity.*

*The etheric body of an apport is copied by spirit consciousness from an original object. Elements specified by the etheric body usually do not exist in a human body in sufficient quantities to form the apport (e.g., the copper and zinc in a brass object). Small samples of the material outside the medium's body can be taken instead, and are used to condition the “conduit of the materialization” associated with the medium's body.*

*For both ectoplasm and apports, any gaps remaining in the etheric template of the intended physical object are filled with fine matter. The filled template is combined with the energy of existence from the medium, and the appropriate physical matter is formed.*

*The Zetas' model is analogous to a physical theory based on the Dirac equation developed by Hotson. The theory proposes that an object may form in a universal, negative-energy Bose-Einstein Condensate coexisting with our positive-energy reality. When the energy of the object becomes positive under certain conditions, it enters physical existence as a fundamental particle like a neutron. This corresponds to the Zeta model where an etheric object filled with fine matter in another realm becomes physical when combined with the energy of existence. The combined Zeta-Hotson model offers an improved understanding of materialization in physical mediumship.*

### Introduction

A previous publication ([Treurniet and Hamden, 2012](#)) discusses dialogues with a member of the extraterrestrial Zeta race speaking through the medium Paul Hamden. The Zeta explained to the best of his ability the nature of the non-physical energetic environment that he is able to manipulate and experience. According to the Zeta, consciousness can create resonations of frequencies in that environment and conjoin resonations of different frequencies. Such manipulations by consciousness would create interference patterns which are then experienced by consciousness as forms and sensations. The described processes seem to be consistent with the principle of the hologram.

The physical realm is a subset of this energetic realm, and physical bodies are closely associated with energetic or etheric bodies. In the séance room, physical matter like ectoplasm can be formed by a medium in an altered state of consciousness, and disappears before the medium returns to the normal state. The consciousness of the spirit control is thought to organize this matter so it corresponds with the energetic form. How this might be done is not understood.

Ectoplasm has a long history in physical mediumship. Somehow, copious amounts of the mysterious substance can be expelled from the medium's body orifices. An extensive description of the nature of ectoplasm is given by [Crowley \(1988\)](#).

*Ectoplasm is an elusive substance which emanates from the body of a medium; it exudes from all the natural orifices the mucous membrane and the skin...it comes in many different forms colors and conditions...it may be gaseous, liquid, or fibrous; it may be soft as velvet with a moist, sticky surface, or it may be rough and solid; it can assume different colors or be of a soft white grey, or black; it can be invisible, although it has weight and gives sensation on contact and can make an imprint on plastic substances; in materialization, it sometimes takes on gorgeous colors from the flowers and gowns of those in the room, and the manifesting entities are able to bring out a beautiful pattern on the ectoplasmic gauze which forms their robes. It is extremely sensitive to light and deteriorates when subjected to its rays. The spirit teachers tell us that the chemicals in the light rays tear down the ectoplasm, so that they are at this time experimenting to find a chemical to add to the ectoplasm that will enable it to withstand the devastating power of light.*

*What does ectoplasm do? It exudes from the orifices of the medium, particularly the mouth, but also the nostrils, or from the skin, particularly in the areas of the solar plexus and the breast. Can it be seen? Yes, it has been seen on occasion in full white light, but usually fares better in red light, which is used in most materialization séances. Can ectoplasm be touched? Is it tangible? Yes.*

*Only very rarely do materializations appear abruptly. They form by a concentration of matter around a central nucleus ... There first appears a more or less formless mass, which may not even be visible, but which can be felt and seems capable of mechanical action.*

The appearance of apports is another phenomenon produced in the presence of a physical medium. Apports are objects that appear fully formed, seemingly out of nowhere, and remain after the medium's altered state has ended. They sometimes emerge from within a bundle of ectoplasm, but have also been seen to appear in other places, including the middle of the air. They can be natural objects such as pebbles and crystals, pieces of paper, or liquids and powders. Sometimes, the objects are small, finely crafted sculptures made out of metal. In the Scole experiment on physical mediumship (Foy, 2008), a sitter proposed that an object moved when the pattern of information representing it was moved to a new location. A spirit responded that the process was more like cloning, so that the information pattern was copied rather than moved. The object would then continue to exist in its original location, with the apport being a duplicate.

Clarifications concerning both ectoplasm and apports were sought from the Zetas in several interviews. They describe a process that appears analogous to an interpretation of some theoretical work of physicist Paul Dirac, a winner of the Nobel Prize in Physics in 1933. This correspondence is examined after discussion of the interview transcripts.

## **A caution concerning semantics**

In any analysis of ET communication, the ET's use of the English language may not exactly convey the intended message. This caution was given by an Anunnaki, another of Paul Hamden's ET contacts. He was asked about apports after some discussions with the Zetas on this subject had already occurred. He replied that *"they have been asked but cannot enunciate what is the process, because the Zeta beings are involved. What your understanding of molecules are and what the Zetas are calling them are two different things. Questions are based around the human language and of course this is going to cause problems at a technical level. The molecular structure of the universe has commonality, but another race will have different names for matter. Information for humans is based around theoretical information of the structure of the universe."*

This is a warning that our use of a word may not correspond to the way the Zetas use the same word. It is our understanding that the Zetas speak to us using our semantic networks to form sentences. We have observed that sometimes they choose a word that is less appropriate for a given context than a related word would be ([Treurniet and Hamden](#), 2012, p. 45). For example, the word *molecule* may have more than one meaning for us. It is either two or more atoms held together by chemical bonds, or it is simply "a very small particle". In the context of chemistry, we assume that *molecule* refers to the first definition. However, the Zetas have less experience with the English language in context and might use the word to refer to any small particle.

Similarly, the word *transmutation* has the general meaning of a change of one thing into another. But it also has the more specific meaning of a change of one chemical element into another via a nuclear reaction. So when the Zeta says that water is transmuted into something else, he may not necessarily mean that the hydrogen or oxygen atoms are converted to different elements.

## **Interview 1 with Zeta #1**

Interviewer: We need to get a handle on how energetic forms are manifested in the physical. We have a hint already, but the mechanism is unclear.

**Zeta1:** *Are you speaking on how a being would manifest consciousness into a physical form once it has traveled across many boundaries?*

*There are also many states of physicality, many states of matter. Each state of matter is like a thinner and thinner lining or sheet. The gross matter of this physical reality is where humans live. The other "linings" are not seen. They would be seen to be like a silk fabric interwoven between the gross matter.*

*Once a consciousness has "thought" to a coordinate, it then intermingles with the finer physicality, drawing to itself the molecules of the process. Accompanying this is the energy of the existence (the energy bound to the matter), and the combined process of matter and energy form a materialized form into the gross state of matter. This has been called by the spirit realm "ectoplasm".*

Interviewer: What is the matter in the finer physicality from which the molecules of the process are drawn? Where does that come from?

**Zeta1:** *They have always existed as part of the fabric of this universe. Your ability to see the light spectrum is inhibited, but you have the ability to understand that the scale of range of light is significant.*

Interviewer: Yes

**Zeta1:** *Not all matter is in a combined state as in existing as a solidified form. Much matter is in a non-combined state.*

Interviewer: Is an electron an example of matter in a non-combined state?

**Zeta1:** *Yes*

Interviewer: So matter elements like electrons, for example, exist with source energy?

**Zeta1:** *All states of matter exist with energy and consciousness. The finer matter is the non-combined - non-formed matter is utilized to create - to draw to a consciousness a framework of materialization or materiality.*

Interviewer: Is the non-combined matter a particular organization of source energy?

**Zeta1:** *It has a non-organized state.*

Interviewer: We were told that all is energy, suggesting that fine matter is of the same substance as source energy. Is this so?

**Zeta1:** *If you were to break down all of matter, it would be seen to be consciousness. Consciousness holding itself into conscious states creates matter. This is seen as certain elements, some of a finer framework, others of a gross process. As you breathe in oxygen, you bring this to yourself as an act of consciousness. As a consciousness would bring to itself finer matter, it creates a process of materialization.*

The Zeta explains that all matter is ultimately consciousness. Particular states of consciousness create matter that ranges from fine matter outside of our experience to the familiar coarse matter. The granularity range of matter is analogous to the electromagnetic spectrum where we can see only a narrow band of visible light. The finer matter is described as thin discrete layers which are completely interwoven with the gross state of matter. The coarse matter is formed when consciousness "brings to itself" the finer matter.

The fine matter is in an unsolidified form and lies beyond our ability to detect. It is normally in a non-combined, non-organized state. This matter includes non-combined electrons. Consciousness focuses on a location, then draws bits of the fine matter to a “framework of materialization”. The fine matter and the energy bound to it is organized by this framework, and becomes the gross state of matter we call ectoplasm.

## ***Interview 2 with Zeta #2***

Interviewer: When we were in xxxxxx, we did table sittings and an apport came out of the middle of the air. The room was not dark at the time so we all saw where it came from. It just materialized from nothing. Can you tell me how that happened? What is the process involved for an apport to come to us on this side?

**Zeta2:** The spirit entity would have a form or shape that they wish to devise as a method of manifestation that would materialize. They would have a mirror image of the physical entity but have the etheric form of it, and so they bring to the etheric form that, once the etheric form is populated with finer matter, the apport materializes.

Interviewer: So it's a mirror image of something that's in, for example, in the spirit realm?

**Zeta2:** No, my friend, it may be an apport that exists from within the physical realm.

Interviewer: So it's moved from one place to another?

**Zeta2:** No, it is a mirror image of something that already exists. All physical matter has an etheric body. The etheric body is copied, which is an easy task for a spirit being.

Interviewer: So it's not something that's taken from one place to another.

**Zeta2:** It was created by man. The spirit brings within the... a copy of the etheric body of the item that is to be materialized.

Interviewer: Can you tell me, is the copy exactly the same size, shape, colour?

**Zeta2:** Yes, it must be.

Interviewer: So it's not something that's bigger, and then materialized as smaller, so it's exactly the same size, made of the same substance?

**Zeta2:** Yes, down to the finest particle.

Interviewer: Explain to me what circumstances are needed for that to happen... what conditions have to be maintained for an apport to come?

**Zeta2:** The spirit entity would have strong contact with the medium. They would be able to manufacture much of the matter from the medium's body.

Interviewer: From the medium's body, did you say?

**Zeta2:** As the etheric image of the apported entity is populated full of fine matter, much of the substance of the apport is based on the medium's physiology. This is why apports are able to be manifested through a medium's physical being.

Interviewer: So are you saying that ectoplasm is used in most materializations of apports?

**Zeta2:** yes.

The Zeta explains how an apport is created. A copy is made of an existing object's etheric body, and the mirror image of the copy is filled with fine matter. The object then materializes using a process that involves the use of ectoplasm. Much of the matter in the apport is manufactured from the medium's body.

A major question about the described process is raised by the assertion that the material for apports comes from the medium's body. For example, a recent apport consisted of about 50 gm of brass. This amount of brass, an alloy of copper and zinc, would be impossible to accumulate from within the medium's body. The body of an 80

kg person contains only about .16 gm of copper (see [here](#)) and about 2 gm of zinc (see [here](#)). Clearly, there is more to learn about this process.

Perhaps neutrons and protons are constructed from the material in the finer layer of matter mentioned by both Zetas. These would help to create any elements that are lacking. The identities and relative locations of the elements in the original physical object would be encoded in the etheric body template which guides the formation of the new physical object.

### ***Interview 3 with Zeta #1***

**Zeta3:** Water, all mediums are drained of water in ectoplasm displays, and oxygen.

Interviewer: I would like to pursue further what happens to the oxygen.

**Zeta3:** Breathing provides the catalyst to create energy, water provides the molecular structure for ectoplasm - no water, very little transmuted water is available for ectoplasm.

Interviewer: But it has to change its atomic structure to make apports, and probably ectoplasm.

**Zeta3:** Yes, but I'm considering if a word even exists to accurately describe in a chemical sense what the ectoplasm is, as if, the word does not even exist in the human language to determine its proper structure.

Interviewer: Ok, then lets talk about apports. We know what it ends up as.

**Zeta3:** The chemists determine the proper molecular structure for the apport sequence. The zeta race determines if the physical body of the medium can create the required elements for the apport.

Interviewer: I doubt that, the medium would not have had enough copper in his body to make that brass apport.

**Zeta3:** As stated, transmuted molecules are used to provide basic templates, and then other fine matter is used to fill in the gaps. It's completely possible to use other matter apart from the medium, except the medium is the conduit for the apport, so some matter is required to support the conduit of the materialization of the apport through the medium.

Interviewer: Where is that stated?

**Zeta3:** I am stating it!

Interviewer: Well, we were told earlier that all the material comes from the medium's body.

**Zeta3:** Yes, but as in all things, there is flexibility. If one factor is not enough, others are then brought into play. The medium may not be able to produce the required chemical compounds, so an apport will still be constructed using other means.

Interviewer: So some apports are made of material not from the medium?

**Zeta3:** Yes, but as stated before, some small amount of material is required to support the materialization process, so even a few molecules will be used to support the transition.

Interviewer: You mean as a seed.

**Zeta3:** If the medium's capacity to provide material is sufficient then it is taken. Yes, a seed is comparable. As ectoplasm is primarily water based, it is used by spirits to manifest through the life force. Or to put it another way, as the water has been taken from the medium's structure, the etheric portions of the water structure are used to create the ectoplasmic structure combined with the matter from the medium.

Interviewer: So why the emphasis on oxygen?

**Zeta3:** So it is seen that ectoplasm is primarily two substances energy and water, it's a primary function of oxygen to create the stimulated environment to allow much increased energy to be created ... this energy is then withdrawn from the body of the medium and combined with matter to form ectoplasm, and as stated, the

chemists, as they are called, will aid in the formulation of the structure of matter.

Interviewer: Combined with which matter?

**Zeta3:** Water.

Interviewer: That means ectoplasm is made from oxygen and hydrogen from the water, combined with energy from oxygen.

**Zeta3:** Yes, but there is a certain consciousness to the ectoplasm as well. Its not simply a matter of a construct based in matter. The consciousness is required to determine the proper usage of the ectoplasm so the consciousness of a "spirit" is utilized to allow the usage of the ectoplasm, else there would be no structures. So this is why and how materialization is produced in a sitting.

Interviewer: The spirit makes something like an etheric body, this would be a kind of template?

**Zeta3:** yes, template.

In the previous interview, we learned that materialized matter is manufactured from the medium's body. In this interview, the Zeta adds that it is primarily the water in the body that plays a role in the creation of ectoplasm. Also, water is said to be particularly useful to spirits "to manifest the life force". Perhaps this is a reference to the life-like motions often seen in formations of ectoplasm made by spirits. So energy and water are the basis for ectoplasm.

Water provides the molecular structure, so all mediums are depleted of water when they help to create ectoplasm. The water molecules are changed in some way by spirit consciousness, and the etheric portions of the resulting structures become templates needed to construct the physical form. The gaps in the templates are filled with the fine matter described earlier. This fine matter is combined with spirit energy to cause the ectoplasm to materialize.

Creation of an apport appears to be a little more complex. The Zeta says that "*the chemists determine the proper molecular structure for the apport sequence. The Zeta race determines if the physical body of the medium can create the required elements for the apport.*" The *chemists*, as told to the medium Kai Muegge, are spirit guides who have access to entities called "enablers".

*The "chemists", as they are called, stand in an array of spirit guides that reach up into the higher spheres of the "enablers", where the mediums sub-consciousness is connected with mighty archetypical cosmological potentials and patterns that reveal themselves as Aliens or Gods. They seldom speak, but everybody of us is connected with these higher entities! They allegedly enable, monitor and control the interdimensional communication to prevent space- or time-paradoxes during the communication attempts (see [here](#)).*

According to Kai Muegge, we would perceive these "enablers" as aliens or god-like entities. They operate at a very high level to ensure the proper functioning of our space/time existence. The chemists do the required chemical analyses with the help of these enablers, while the Zetas determine if the medium's body can create the components of the apport. It appears that producing an apport is done cooperatively by the chemists, the enablers, the Zeta race, and the medium.

As was the case for ectoplasm, the Zeta says that "*transmuted molecules are used to provide basic templates*" for constructing an apport. A transmuted molecule may be one that was dissociated in order to obtain a component of the molecule such as a metal atom. These are accumulated from the medium's body if there are enough there. Otherwise, the Zeta says, "*It's completely possible to use other matter apart from the medium, except the medium is the conduit for the apport, so some matter is required to support the conduit of the materialization of the apport through the medium.*" The Zeta reiterates, "*some small amount of material is required to support the materialization process, so even a few molecules will be used to support the transition.*" In other words, if matter from a source other than the medium's body is used, a small amount of it must be introduced to condition the *conduit of the materialization* so it is in the proper state for materialization of that

kind of matter. In this state, the etheric template copied from the etheric body of the original object is filled with fine matter. This fine matter is then combined with spirit energy to create the physical apport.

The Zeta says in the interview that “*breathing provides the catalyst to create the energy*” for materialization. Also, “*it's a primary function of oxygen to create the stimulated environment to allow much increased energy to be created.*” The importance of breathing and the role of oxygen in increasing spirit energy was also mentioned by a Zeta in a sitting about three years earlier. The sitters had noticed an increased tendency to yawn.

*We need a certain energy to produce the contact. This is why the breathing became a "larger issue". This expels the energy needed for contact - this process works by stimulating the oxygen in the blood, thus increasing the electrical discharge you provide us.*

A possible physiological mechanism for energizing the etheric body during the respiration cycle was proposed in [Treurniet and Hamden](#) (2012, p. 113). It is known that deoxygenated hemoglobin absorbs more electromagnetic energy than oxygenated hemoglobin at the lower frequencies of the visible spectrum. Whenever oxygen is taken up by hemoglobin, the energy displaced from the molecule would be taken up by the etheric body. Breathing would indeed be the catalyst for creating the energy for materialization, and the need for oxygen by the body would be the basis for creating such additional energy.

According to the Zeta, “*this energy is then withdrawn from the body of the medium and combined with matter to form ectoplasm, and as stated, the chemists, as they are called, will aid in the formulation of the structure of matter.*” The chemists have a role to play in specifying the molecular structure of ectoplasm as well as apports. The creation of ectoplasm is therefore a joint project of the chemists, the enablers, and the medium, without the participation of the Zeta race.

## **Additional clues about the process**

During a sitting some time after the third interview, the Zetas responded briefly to more questions about the process underlying the creation of ectoplasm. They said that “*water is transmuted as it is much of a physical substance*”. Further, we were told that the transmutation process changes H<sub>2</sub>O to O<sub>2</sub>H. This suggests that the process makes use of oxygen and hydrogen ions produced after the bonds in water molecules are broken.

On a related issue, the Anunnaki communicator was asked why white light interferes with the creation of ectoplasm. He responded, “*It is seen that all light produces heat, and heat is seen as a disintegrating factor for ectoplasm.*” This implies that ectoplasm is degraded by an increased kinetic energy of the particles involved.

The kinetic energy of molecules is in the vibration of the chemical bonds between atoms. These vibrations are increased by the absorption of energy from electromagnetic (EM) radiation. [Water molecules absorb energy](#) mostly from the infrared and ultraviolet regions of the EM spectrum, with the least absorption in the range of visible light. Therefore, if molecular excitation interferes with the production of ectoplasm, red and violet light from the extremes of the visible spectrum should interfere most.

Also, the kinetic energy of electrons in matter can be increased by incident light, and may cause electrons to be ejected from the matter. This is called the [photoelectric effect](#). The amount of energy transferred from photons to electrons increases with the frequency of the light. Therefore, if this effect were responsible, blue light should interfere more with the production of ectoplasm than red light.

In practice, red light seems to interfere less with the process than white light. This suggests that the white light interferes by increasing electron energy rather than by increasing the energy in molecular bonds.

## **The Zeta model for materialization**

According to the Zetas, particular states of consciousness can create matter on a spectrum of granularity ranging from fine matter to the familiar coarse matter. The undetectable layers of finer matter are interwoven with the coarse matter we know. The coarse matter is formed when consciousness “brings to itself” the finer matter.

Consciousness focuses on a location, then draws finer matter to a “framework of materialization” that includes the etheric body of the ectoplasm or apport. The etheric body of the apport is copied from the original object and encodes all the properties of that object, while the etheric body for ectoplasm is constructed by a spirit consciousness. The etheric body contains information on the atomic structure and spatial organization of the object to be materialized.

Ectoplasm is manufactured using mainly water from the medium's body. The water is reorganized by spirit into separate hydrogen and oxygen ions, and these ions with their etheric counterparts are rearranged to form an etheric template for an intended object. A possible candidate is [cellulose](#) which consists of a chain of  $(C_6H_{10}O_5)$  units. Over 70% of the atoms in cellulose are the constituents of water. The missing carbon atoms would also be taken from the medium's body if available, or they would be created by filling their etheric templates with fine matter. Some ectoplasm has the appearance of cotton fibres which are almost pure cellulose (see Pic 4-8 [here](#)).

When the medium's body does not have a sufficient quantity of the elements needed to form a predefined apport, the material may be obtained elsewhere. A few samples of this material is used by spirit to condition the “conduit of materialization” in the medium's body. Gaps in the etheric template for the apport are filled with fine matter drawn by consciousness. The fine matter combined with the energy of existence forms the physical counterpart of the apport. This may be seen as a process of creation.

## ***An interpretation of the Dirac equation***

The process described by the two Zetas for making ectoplasm and apports suggests a correspondence with an interpretation of a well-known yet controversial equation formulated by Paul Dirac.

The Dirac equation is a relativistic generalization of the Schrödinger wave equation in quantum mechanics. It is well known today for successfully predicting the existence of anti-matter such as the positron. The implications of the equation were developed by Donald L. Hotson ([2002a](#), [2002b](#), [2009](#)) into a novel conceptual theory that addresses commonly accepted non-causal effects in current theories of physics. Remarkably, his interpretation of the Dirac equation offers a mechanism for the creation of matter that is consistent with the Zeta's explanation of the formation of ectoplasm. The reader is encouraged to read Hotson's articles since only the most pertinent elements of his proposal will be mentioned here.

The interpretation of the Dirac equation is controversial since it predicts twice as many particle states as expected. In particular, it predicts the existence of both positive and negative-energy electrons and positrons. Negative-energy states are considered physically impossible by the majority of physicists. Nevertheless, Dirac proposed the existence of a sea of negative-energy particles interspersed with our familiar positive-energy matter. It is filled with unlimited numbers of polarized electron-positron pairs which Hotson dubbed “epos”. In this negative energy state, the epos are thought to vibrate in multiple dimensions, some of which are imaginary (in a mathematical sense) where they would have lower energy. The epos that have been found to surround a positive-energy ion are therefore not created, but simply show themselves following a change of state. They appear in the positive energy range when the epos vectors point in real directions.

A positron may be described as an out-of-phase electron, and so an epos has a different version of the same particle at each end. The epo is said to be “charge condensed” so that each charge is affected mostly by its oppositely charged partner. The negative-energy epo has no mass or inertia and so is not detectable. Hotson contends that the negative-energy sea of epos must exist in the form of a Bose-Einstein Condensate (BEC), and that our reality is surrounded by and immersed in the BEC.

In the BEC, charges are always balanced and negative energy must predominate. The whole BEC is described by a single quantum mechanical wave function and behaves as a unit rather than as a collection of individual particles. This might account for mysterious non-local effects such as quantum entanglement. Hotson describes the BEC as an energetic machine that is a hive of activity. Charges travel at the speed of light filling every available dimension. But in spite of the charge condensed nature of the epos, like charges must frequently meet and repel each other in the crowded BEC environment, thus generating positive energy. The positive energy



manifests in our normal reality as particles with mass.

Because the Dirac equation has four roots, Hotson proposed that everything must be made of electrons and positrons with positive and negative energies. Since the early universe was composed of neutrons, he suggested that a neutron must be made of epos. Consistent with this is the observation that the diameter of a neutron is the same as the length of an epo. Hotson reasoned that 9180 electron-positron pairs with spin energy in ten dimensions are a stable arrangement, making an object with a neutral charge. Such an object may be formed in the BEC from random fluctuations of the spins in the 10 dimensions. When by chance the object has the right positive energy mass, and has spin energy in all ten dimensions, it is expelled from the BEC as a neutron. In the positive energy realm, the neutron may decay to a proton and an electron, and of course, these are the constituents of atoms and molecules.

## ***Materialization via the BEC***

Hotson describes a natural process of random fluctuations of the ten-dimensional epo spin vectors in the all-encompassing BEC to form a neutron, while the Zetas describe the coordination of invisible fine matter by consciousness to form ectoplasm and apports. Closer examination indicates that these two processes may be the same.

The Zeta model introduces the concept of a spectrum of granularity for describing matter. At the coarsest end of the spectrum is matter that we normally experience, so this must be positive-energy matter such as the nucleons or larger. The electron was given as an example of non-combined fine matter. It follows that the epo is a form of fine matter since it consists of a positive and a negative electron. These are each the same particle differing only in phase. We can say, therefore, that the epos in the BEC with their randomly oriented spin vectors fall somewhere towards the fine end of the matter granularity spectrum, and are described by the Zetas as non-organized fine matter.

While Hotson attributes the formation of a positive-energy structure in the BEC entirely to chance, the Zeta model says consciousness can promote such an organization by imposing a “framework of materialization” on the fine matter. In the case of an apport, this framework is the mirror image of its etheric body. Consciousness biases the orientation of epos spin vectors from imaginary to real directions so that fine matter structures in the framework assume a positive energy. If the structures were the size of 9180 epos, the resulting stable object would enter the gross state of matter as a neutron and be forced out of the BEC.

Hotson's proposed mechanism must be only part of the process since ectoplasm and apports are made of more than just neutrons. Perhaps the framework of materialization can form more complex kinds of gross matter. The Zeta says that created matter “*is seen as certain elements, some of a finer framework, others of a gross process.*” The pluralization in “*others of a gross process*” suggests that more than neutrons can be created as gross matter. Note also that matter can be created by consciousness anywhere along the matter granularity spectrum.

## **Discussion**

The creation of positive-energy matter is described in different ways by Hotson and the Zetas. Nevertheless, it is easy to see by analogy how they correspond. When the points of correspondence are recognized, each description suggests how the other might be extended.

For example, Hotson's model offers information about the framework of materialization acted upon by consciousness in the Zeta's model, and the kind of manipulation needed to create matter. Specifically, the framework of materialization is filled with epos, and consciousness may change the orientations of the epos spin vectors so that the energy of structures within the framework becomes positive. The result is ejected from the BEC, possibly as nucleons.

In turn, the Zeta model says that a spectrum of matter granularity coexists with the coarsest granularity of our physical reality. The spectrum consists of multiple layers, and the finer layers are undetectable by our senses and

instruments. As proposed by Hotson, the epos form the negative-energy layer in the BEC, and can become positive-energy matter in the adjacent coarsest layer of matter. Further, the assertion that there are multiple layers suggests that the epos layer is filled in a similar manner from an even finer layer. Like the BEC, each layer would contain only objects satisfying constraints unique to that layer.

The Zetas' comments indicated that the material from which ectoplasm and apports are made is “manufactured” from the medium's body. The primary source material for ectoplasm is the water in the body. The water molecules are decomposed by spirit and reorganized so that the corresponding etheric forms approximate the desired properties of the ectoplasm as closely as possible. The process for creating an apport differs somewhat, especially when the object is made of elements not found in large quantities in the body. Material outside the body can be used instead, and small samples of this material is required to condition the “conduit of materialization” in the medium's body. Gaps in the etheric framework for both ectoplasm and apports are filled by consciousness by drawing in fine matter. This matter, combined with the “energy of existence”, completes the creation of new physical matter. This process is somewhat analogous to the creation of neutrons from the epos in the BEC as described by Hotson.

Statements by the Zetas indicate that oxygen has a particular role to play in the materialization process. A Zeta says in one interview, *“Consciousness holding itself into conscious states creates matter. This is seen as certain elements, some of a finer framework, others of a gross process. As you breathe in oxygen, you bring this to yourself as an act of consciousness. As a consciousness would bring to itself finer matter, it creates a process of materialization”*. In another interview, a Zeta says, *“Breathing provides the catalyst to create energy”* and *“a primary function of oxygen is to create the stimulated environment to allow much increased energy to be created”*.

Although oxygen is a component of the water used to create ectoplasm, these comments appear to refer to something else. Oxygen is drawn into the body by breathing, and it appears to be involved in a mechanism for transferring energy to the medium's etheric body. It was observed that electromagnetic energy can accumulate in hemoglobin during the half of the respiratory cycle when much of the hemoglobin is deoxygenated. Then when oxygen is taken up again by the hemoglobin in the lungs, these packets of energy would be available to be taken up by the etheric body. This energy would be combined with the filled etheric templates to cause new matter to materialize.

Chemical processes might also be stimulated by the materialization in the body of positive-energy neutrons from the BEC as suggested by Hotson. Positively charged protons from decaying neutrons would behave as free radicals and might participate in the creation of polymers using existing or created carbon atoms. Such polymers might form the ectoplasm seen emerging from the medium's orifices.

Sometimes ectoplasm is accompanied by crackling noises that sound like discharges of static electricity (e.g., Foy, 2008; [Treurniet](#), 2012). This effect might occur when matter appears from the BEC, such as the neutron proposed by Hotson. A lone neutron decays with a half life of 10-15 minutes into a proton and an electron. The electron is given enough kinetic energy to escape and may negatively charge nearby matter, leaving behind the heavier proton with its positive charge. An accumulation of such charges on floating bodies of ectoplasm might neutralize with a crackling sound upon contact with other bodies or objects in the room. Another effect often produced by some mediums is a small ball of light flying around the room. This light might be a corona discharge between streams of particles with opposite polarity ejected from the BEC.

It is said that ectoplasm should never be touched by bystanders for fear of harming the medium. A famous example of such interference is the [Helen Duncan case](#). Authorities suspected that her productions of ectoplasm were fraudulent and interrupted a séance to expose her. When she was arrested, the ectoplasm whipped back and appeared to cause second degree burns to her body. It is believed that her death a few weeks later may have been caused by more serious internal injuries from the incident. This episode suggests that the consciousness of the spirit control was distracted by the intrusion, causing it to lose control of the ectoplasm. Apparently, the conditions created by consciousness needed to be actively maintained.

The combined Zeta-Hotson model might explain the injury to Helen Duncan. Consciousness changes the epos

spin states in the materialization framework to form nucleons for creation or transmutation of elements and to promote biochemical activity. Such control may need to be applied continuously to keep the neutrons and any resulting proton energies positive. In this positive-energy state, many of the protons may have combined chemically with Duncan's physiology as hydrogen ions. If so, the removal of constraints on the epos spin vectors when the spirit control's consciousness was distracted could have had serious consequences. The associated hydrogen atoms would have reentered the BEC or fine matter state when the energy became negative. Such random disappearances of atoms would have disrupted Duncan's physiological processes.

A corollary to this hypothesis is that the consciousness of the spirit control is normally able to manage an orderly retreat of the ectoplasm. A slow release of the constraints imposed by consciousness would allow disappearing atoms to be gradually replaced by pre-existing positive-energy atoms, thus avoiding harm to the medium.

An obvious difference between ectoplasm and an apport is that the ectoplasm has a temporary existence while the apport does not. According to the Zetas, the apport is supported by the copy of an existing etheric body, while the ectoplasm is supported by a “framework of materialization”. The latter is created by the spirit control's consciousness, so the ectoplasm would exist as long as it is maintained by that consciousness. On the other hand, the copied etheric body has an independent existence that persists after the departure of the spirit control. This would account for the difference in permanence of the two kinds of materialized objects.

### ***Previous comments from spirits***

Earlier comments about ectoplasm obtained from spirits are brought into focus with the the new perspective provided by the Zeta-Hotson model. The medium, Kai Muegge, regularly produces large amounts of ectoplasm in physical mediumship séances, and was able to photograph it in white light. [Here](#) it is seen emerging from the tissues in his mouth. His main spirit control gave the following explanation for the appearance of ectoplasm.

*The ectoplasmic mass is in connection with a higher realm. The ectoplasmic mass is originally a mass that was brought into your realm from a higher one, and so to speak, ectoplasm is in fact an alien substance. Ectoplasm has the ability to form the world, to give the codes to all things that develop to more complexity. These codes do not come from your realm but from higher ones.*

According to Kai Muegge's spirit control, the source of the ectoplasm is the 'higher realm' which may include the layer of fine matter described by the Zeta, or the BEC filled with epos in Hotson's model. The comment that “*the ectoplasmic mass is originally a mass that was brought into your realm*” is consistent with gross matter having come from a stable mass of epos in the BEC or the adjacent fine matter layer.

Further, the spirit control appears to be saying that the structures of our material world depend on the possibilities inherent in the gross matter elements that form ectoplasm. According to Hotson's model, these elements are the sub-atomic particles formed by the epos in the BEC. Since these elements combine to form the atoms and all ensuing chemical reactions, they would “*give the codes to all things that develop to more complexity*”.

Alternatively, the Zeta model holds that formation of ectoplasm and apports are guided by codes in the energetic framework of materialization and etheric body, respectively. These codes would determine the matter creation and transmutation that cause things to “*develop to more complexity*”.

The member of the ET Anunnaki race who speaks through Paul Hamden was asked about Kai Muegge's displays of ectoplasm, and he gave this response (Hamden, 2012, p. 84).

*The medium who is developing that is also using the process of creation and I would say also that it is manifestation of consciousness.*

This brief comment agrees with the information from both the Zetas and Kai Muegge's spirit control that the creation of ectoplasm follows the same process as the creation of matter in general. Further, it agrees with the Zetas that consciousness underlies the process of creation.

## Comments from a medium

Kai Muegge has [published](#) his own views on what happens during materialization. He has extensive experience producing ectoplasm and apports in séances. In the altered state, he is sensitive to subtle changes in himself and his environment, and can give us a unique perspective. The following is an excerpt from his description.

*The chemists use the ectoplasmic field to interact directly and physically with our realm of existence. Ectoplasm is the expression of a creational power field, that has vital and creational qualities and that expands into the three-dimensional space around the medium. This field is called "vital", because it acts as a creational agent on our dimensional realm. It is and can create living matter and comprises at least several creational codes of our dimension.*

*The three-dimensional "rigid" field, the main spirit control sometimes calls it, is able to build up like a three-dimensional net-like structure into the room. Along its power lines, that can sometimes become visible or palpable and appear like thread-like support-structures or sticky wire-like extensions, certain "compactions" can build and separate from the main structure and appear then like an autonomously acting structure inside of the Séance Room.*

There are clear correspondences with the information given by the Zetas. Here we see that the chemists use the ectoplasmic field to interact with the physical realm. In an interview, a Zeta said that the chemists arranged the chemical analysis in preparation for an apport or a display of ectoplasm. The “*creational power field*” is three-dimensional and corresponds to the Zeta's “*framework of materialization*”. The field is creational in that “*compactions*” can form at points on this three-dimensional grid structure, separate from it, and appear as matter in the séance room. This parallels the Zeta's description of an object formed in fine matter before materialization as gross matter, or Hotson's description of a positive-energy structure formed in the BEC that instantly enters our normal reality as a particle with mass.

Kai Muegge adds in a personal communication, “*I talk of the ectoplasmic field that organizes several physiological and environmental ingredients, that forms what is visible in the end: the ectoplasmic mass.*” The *physiological ingredient* may refer to the water in his body, and the ectoplasmic field may be a reference to the “*framework of materialization*” that organizes the required creation and transmutation of elements in the body and the relative locations of the results.

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