

# **A Matter of Unfolding Mind?**

**The Buddhist Dzogchen / Yogacara  
Ground Consciousness Basis  
Implicates Bohm's Implicate Order**

Graham Smetham



The notion of the ‘implicate order’ is central within Bohm’s worldview, and, furthermore, the notions ‘enfoldment’ and ‘unfoldment’ are central concepts for understanding the functioning of the implicate order. Bohm explained in *Wholeness and the Implicate Order*:

We proposed that a new notion of order is involved here, which we called the implicate order (from a Latin root meaning ‘to enfold’ or ‘to fold inward’). In terms of the implicate order one may say that everything is enfolded into everything. This contrasts with the explicate order now dominant in physics in which things are unfolded in the sense that each thing lies only in its own particular region of space (and time) and outside the regions belonging to other things.<sup>1</sup>

Here Bohm indicates that the information that gives rise, by the operation of a process of ‘unfoldment’, to the everyday ‘explicate order’, has been previously ‘enfolded’ in some way into the ‘implicate order’. He also suggests that physics at the time he was writing was more concerned with mechanisms within the explicate order, and neglected research into mechanisms taking place within the implicate order. In this chapter we will investigate the kind of mechanisms which could be involved in the processes of enfoldment and unfoldment. We shall look into evidence from physics, biology, and both Eastern and Western metaphysics.

This process of enfoldment into the implicate order, and unfoldment from the implicate into the explicate order is clearly a center-stage aspect of the holomovement as it is referred to frequently:

This is the implicate or enfolded order. In the enfolded order, space and time are no longer the dominant factors determining the relationships of dependence or independence of different elements. Rather, an entirely different sort of basic connection of elements is possible, from which our ordinary notions of space and time, along with those of separately existent material particles, are abstracted as forms derived from the deeper order. These ordinary notions in fact appear in what is called the explicate or unfolded order, which is a special and distinguished form contained within the general totality of all the implicate orders.<sup>2</sup>

And:

Now, the word ‘implicit’ is based on the verb ‘to implicate’. This means ‘to fold inward’ (as multiplication means ‘folding many times’). So we may be led to explore the notion that in some sense each region contains a total structure ‘enfolded’ within it. It will be useful in such an exploration to consider some further examples of enfolded or implicate order. Thus, in a television broadcast, the visual image is translated into a time order,

which is 'carried' by the radio wave. Points that are near each other in the visual image are not necessarily 'near' in the order of the radio signal. Thus, the radio wave carries the visual image in an implicate order. The function of the receiver is then to explicate this order, i.e., to 'unfold' it in the form of a new visual image.<sup>3</sup>

Here Bohm suggests that potentialities that are enfolded within the implicate realm are unfolded, perhaps by sentient beings acting as 'unfolders', into the experiences of the 'classical' dualistic world in a similar way to a radio set unfolding from a radio signal. Bohm gives the example of the way in which a radio electromagnetic wave encodes the transmitted content within, or on top of, another frequency. The original content is 'unfolded' by tuning to the carrier frequency.

Another analogy Bohm used, perhaps more precisely relevant to his vision of the holomovement, is that of a hologram:

To indicate a new kind of description appropriate for giving primary relevance to implicate order, let us consider once again the key feature of the functioning of the hologram, i.e., in each region of space, the order of a whole illuminated structure is 'enfolded' and 'carried' in the movement of light. Something similar happens with a signal that modulates a radio wave .... In all cases, the content or meaning that is 'enfolded' and 'carried' is primarily an order and a measure, permitting the development of a structure. With the radio wave, this structure can be that of a verbal communication, a visual image, etc., but with the hologram far more subtle structures can be involved in this way ...<sup>4</sup>

The analogy of a hologram is extremely illuminating (!) in the elucidation of the processes of enfoldment and unfoldment. In *Science, Order, and Creativity* Bohm and Hiley indicate that the holograph is the most appropriate analogy:

A better analogy to the behavior of an electron, for example, can be obtained by considering a holograph, which is a photographic record of light waves that have been reflected from an object. In normal photography a lens is used to focus light from an object, so that each small section of the object is reproduced in a small section of the photographic plate. In holography, however, the photographic record made by laser light does not in fact resemble the object but consists of a fine pattern of interference fringes. Each portion of the plate now contains information from the whole of the object. When similar laser light is used to illuminate the plate, the light waves emerging from it resemble those that originally came from the object. It is therefore possible to see, in three dimensions, an image of the original object. What is particularly significant, however, is that even if only part of the plate is illuminated, an image of the whole object is still obtained. This is because light from every part of the object

is enfolded within each region of the plate. In normal photography, information is stored locally, but with the holograph it is stored globally. As successively smaller regions of the holograph are illuminated, the images as a whole are not lost. Instead fine detail becomes progressively more difficult to resolve. This global property of enfoldment of information and detail has something in common with both fractal and Fourier orders.<sup>5</sup>

So we see that there are two phases. Firstly, the production of the hologram involves the use of beams of coherent laser light. One beam reflects off the object and then interacts with a main beam, this produces a interference pattern which is recorded on a photographic plate. To 'unfold' the image from the holographic image, the hologram, it requires another coherent light beam to be shone on it. Thus there is an 'enfoldment' of the original image into the hologram, and then the subsequent 'unfoldment' of the original image from the hologram. One significant feature of the holographic image on the hologram is that any portion of the hologram contains the entire original image. If a small portion of the hologram is used to unfold the original image it will be blurred. The sharpness improves as more of the hologram is used. This is an important point, Bohm suggested that the way in which information is enfolded within the implicate order is very different, its order was different, to the order of the explicate order. In particular, as Bohm indicates: "Points that are near each other in the [explicate] image are not necessarily 'near' in the order of the [implicate order]".

This leads us to the issue of exactly what kind of mechanism might be involved in the processes of 'enfoldment' and 'unfoldment'. In *The Undivided Universe* Bohm and Hiley explain that:

... the notion of enfoldment is not merely a metaphor, ... it has to be taken fairly literally. To emphasize this point, we shall therefore say that the order in the hologram is *implicate*. The order in the object, as well as in the image, will then be unfolded and we shall call it *explicate*. The process ... in which the order is carried from the object to be hologram will be called *enfoldment* or *implication*. The process in which the order in the hologram becomes manifest to the viewer in an image will be called *unfoldment* or *explication*.

.....

Since all matter is now analysed in terms of quantum fields, and since the movements of all these fields are expressed in terms of propagators, it is implied by current physics that the implicate order is universal ... we can never have the same field point twice ... all properties that are attributed to the field have to be understood as relationships in its movement ... Whatever persists with a constant form is sustained as the unfoldment of a recurrent and stable pattern which is constantly being renewed by enfoldment and dissolved by unfoldment. When the renewal ceases the form vanishes.<sup>6</sup>

At first look this presentation may seem strange. Why should a particle, or ‘stable pattern’ be renewed by ‘enfoldment’, which ‘enfolds’ back into the implicate order, and why should the ‘unfoldment’ of a new particle dissolve it? We find further elucidation on previous pages. In the following the term ‘wave’ refers to a wave of quantum potentiality unfolding or enfolding, as the case may be, within the implicate order:

Waves from each point unfold. But at the same time waves from many points are enfolding to give rise to a new wave front. So in the totality, the one process includes both enfoldment and unfoldment. It is only when we focus on a part that we are led to talk of these as distinct.

So quantum waves of potentiality are both enfolding into, and unfolding out, of the implicate order. Particles which make up the appearance of a ‘classical’ everyday reality are momentary flickers of explicated ‘existence’ which flicker into appearance, and as they do so they enfold back into the implicate order as, at the same time, they are dissolved by the next flicker of apparent ‘existence’. As Bohm wrote in his article ‘A New Theory of the Relationship of Mind and Matter’:

...all things found in the unfolded, explicate order emerge from the holomovement in which they are enfolded as as *potentialities*, and ultimately they fall back to it. They endure only for some time, and while they last, their existence is sustained in a constant process of unfoldment and re-enfoldment, which gives rise to their relatively stable and independent forms in the explicate order.<sup>7</sup>

In his book *Mind, Matter and the Implicate Order*, the theoretical philosopher Paavo Pylkkänen elucidates on this:

Bohm says that things *emerge* from the holomovement. But this is not “something out of nothing” emerge or creation. Instead, Bohm assumes an Aristotelian fashion that their exist *potentialities* in the holomovement. A potentiality for him is an “enfolded order” that “actualizes” when it unfolds to the explicate order. ... the “particle” is a recurring phase of an underlying process of unfoldment and enfoldment.<sup>8</sup>

This understanding immediately raises the issue of where the potentialities within the holomovement originate from. With regard to this issue the following observation by quantum physicist Henry Stapp is pertinent:

The evolving quantum state, although controlled in part by mathematical laws that are direct analogs of the laws that in classical physics govern the motion of ‘matter’, no longer represents anything substantive. Instead, the evolving quantum state would represent the ‘potentialities’ and ‘probabilities’ for actual events. Thus the ‘primal stuff’ represented by the evolving quantum state would be idealike in character rather than matterlike ... quantum theory provides a detailed and explicit example of

how an idealike primal stuff can be controlled in part by mathematical rules based in spacetime.<sup>9</sup>

Thus, the quantum ‘primal stuff’ moving within the holomovement, to put the situation crudely, is made up of a vast, possibly infinite realm, of “idealike” “potentialities”. And in their book *The Grand Design*, Stephen Hawking and Leonard Mlodinow tell us:

...the universe doesn’t have just a single history, but every possible history, each with its own probability; and our observations of its current state affect its past and determine the different histories of the universe, just as the observations of the particles in the double-slit experiment affect the particles’ past.<sup>10</sup>

In this quantum-metaphysical proposal, from a timeless point of creation a spontaneous universal creative act projects all possible futures into a universal possibility or potentiality space. At the point of creation everything that possibly can happen becomes potential, so at the point of creation all possible future histories of the universe come into being as potentialities, although not yet experienced realities:

In this view, the universe appeared spontaneously, starting off in every possible way. Most of these correspond to other universes .... Some people make a great mystery of this idea, sometimes called the multiverse concept, but these are just different expressions of the Feynman sum over histories.<sup>11</sup>

In other words, the universe comes into existence as an infinite sea of potential histories. These are implicate future histories of the universe awaiting unfoldment into ‘explicate’ manifestation as the future ‘unfolds’. In *The Undivided Universe* Bohm and Hiley compare their own view with the Many Worlds interpretation, which asserts that all potential worlds are equally ‘real’ and there is no one privileged ‘classical’ world, and say that:

...our interpretation ... gives a simple and coherent account of why the large scale world of common experience should be essentially classical.<sup>12</sup>

So we can conclude that, clearly, Bohm’s perspective takes as a background within the implicate order the presence of an implicate field, or fields, of infinite potential ‘worlds’ which await unfoldment into the explicate order. The later Bohmian Undivided Universe perspective, in contrast to the Many Worlds viewpoint, asserts that a privileged, because experienced, explicate world unfolds from the implicate multiverse background of potentiality.

Bohm considered, in a very Buddhist / Hindu perspective, that any one universe, like our own, is the result of the coming together of even deeper movements of subtle energy-potentiality:

...let us consider the current generally accepted notion that the universe, as

we know it, originated in what is almost a single point in space and time from a 'big bang' that happened some ten thousand million years ago. In our approach this 'big bang' is to be regarded as actually just a 'little ripple'. An interesting image is obtained by considering that in the middle of the actual ocean (i.e., on the surface of the Earth) myriads of small waves occasionally come together fortuitously with such phase relationships that they end up in a certain small region of space, suddenly to produce a very high wave which just appears as if from nowhere and out of nothing. Perhaps something like this could happen in the immense ocean of cosmic energy, creating a sudden wave pulse, from which our 'universe' would be born. This pulse would explode outward and break up into smaller ripples that spread yet further outward to constitute our 'expanding universe'. The latter would have its 'space' enfolded within it as a special distinguished explicate and manifest order.<sup>13</sup>

And then this new universe itself becomes, so to speak, its own implicate-explicate order operating as an explicating movement of implicate orders:

Rather, one is to begin with the holomovement, in which there is the immense 'sea' of energy described earlier. This sea is to be understood in terms of a multidimensional implicate order, along the ... while the entire universe of matter as we generally observe it is to be treated as a comparatively small pattern of excitation. This excitation pattern is relatively autonomous and gives rise to approximately recurrent, stable and separable projections into a three-dimensional explicate order of manifestation, which is more or less equivalent to that of space as we commonly experience it.<sup>14</sup>

But now we have the question of exactly how any of the various potentialities get activated, or 'chosen', to become experienced as part of the explicate order.

According to Pylkkänen:

It is particularly important to note Bohm's emphasis on the incompleteness of existence, for without it there would be no room at all for creativity in his concept of reality, as the unfoldment would be nothing but the realization of pre-existing enfolded potentialities. In contrast, incompleteness leaves room for the creation of new potentialities and new types of unfoldment ...<sup>15</sup>

Here Pylkkänen seems to suggest the possibility of completely new potentialities being created. This, however, would be a creation from 'nothing' and is not supported by quantum theory of any flavour. Furthermore, according to the Feynman sum-over-histories approach alluded to by Hawking and Mlodinow, all possible possibilities exist as potentialities at the dawn of time, so new ones could not be created ex-nihilo! Measurements do not create completely new quantum potentialities, rather they trigger the selection of one of the potentialities.

However, this does not rule out creativity. Creativity resides in the selection of pre-existing potentialities, and, as we shall see, the scope of this creativity is limited by selections which have been made in the past. To see how this works we can consult the insightful discussion between the biologist Rupert Sheldrake and Bohm, 'Morphic Fields and the Implicate Order'. The innovative biologist Rupert Sheldrake has proposed that biological inheritance and development is driven by 'morphic resonance' within a 'morphic field':

The idea is that there is a kind of memory in nature. Each kind of thing has a collective memory. ... And how that influence moves across time ... is given by the process I call morphic resonance. It's a theory of collective memory throughout nature. What the memory is expressed through is the morphic fields, the fields within and around each organism. The memory processes are due to morphic resonance.<sup>16</sup>

For Sheldrake, genes are not the central feature of inheritance, although, of course, they are involved. However, according to his theory of morphic resonance the primary determining aspect of biological morphogenetic structuring lies deeper at the quantum level wherein there reside morphogenetic fields. According to Sheldrake morphogenetic fields are quantum:

*...probability structures* that depend on the statistical distribution of previous similar forms. The probability distributions of electronic orbitals described by solutions of the Schrödinger equation are examples of such probability structures, and are similar in kind to the probability structures of the fields of morphogenetic units at higher levels.<sup>17</sup>

According to Sheldrake, then, morphogenetic fields are internal structuring aspects of the implicate order. This was the subject of his discussion with Bohm, here are selected highlights :

**Sheldrake:** The developing organism would be within the morphogenetic field, and the field would guide and control the form of the organism's development. ...

**Bohm:** ... But from the point of view of the implicate order, I think you would have to say that this formative field is a whole set of potentialities, and that in each moment there's a selection of which potential is going to be realized, depending to some extent on the past history, and to some extent on creativity.

**Sheldrake:** But this set of potentialities is a limited set, because things do tend toward a particular end point. I mean cat embryos grow into cats, not dogs. So there may be variation about the exact course they can follow, but there is an overall goal or end point.

**Bohm:** But there would be all sorts of contingencies that determine the

actual cat.

**Sheldrake:** Exactly. Contingencies of all kinds, environmental influences, possibly genuinely chance fluctuations. But nevertheless the end point of the chreode would define the general area in which it's going to end up. ...

**Bohm:** Each moment will therefore contain a projection of the re-injection of the previous moments, which is a kind of memory; so that would result in a general replication of past forms, which seems similar to what you're talking about. ...

**Sheldrake:** So this re-injection into the whole from the past would mean there is a causal relationship between what happens in one moment and what subsequently happens?

**Bohm:** Yes, that is the causal relation. When abstracted from the implicate order, there seems to be at least a tendency, not necessarily an exact causal relationship, for a certain content in the past to be followed by a related content in the future.

The discussion continues to explore various facets of the idea that repetitions of events in the past within the explicate order will strengthen the potentialities within the implicate order for those events to reoccur at a later point in time. The fundamental perspective which emerges is the understanding that there is a primary mode of functioning which indicates that potentialities which have activated in the past are strengthened as potentialities for future activation, although there is also a limited degree for creative novelty to occur.

Lee Smolin, in his book *Time Reborn*, agrees with this kind of quantum viewpoint with his '*principle of precedence*':

... a principle stating that repeated measurements yield the same outcome ... Such a principle would explain all the instances in which determinism by laws work but without forbidding new measurements to yield new outcomes, not predictable from knowledge of the past.<sup>18</sup>

And Smolin quotes a similar insight from the philosopher Charles Sanders Pierce:

All things have a tendency to take habits. For atoms and their parts, molecules and groups of molecules, and in short every conceivable real object, there is a greater probability of acting as on a former like occasion than otherwise. This tendency itself constitutes a regularity, and is continually on the increase. In looking back into the past we are looking towards periods when it was a less and less decided tendency.<sup>19</sup>

So the idea that the probabilities of potentialities intensify over time due to repetition has itself been subject to a degree of repetition. In his discussion with Sheldrake, Bohm observed that:

If we can bring in time, and say that each moment has a certain field of potentials (represented by the Schrödinger equation) and also an actuality, which is more restricted (represented by the particle itself); and then say that the next moment has its potential and its actuality, and we must have some connection between the actuality of the previous moments and the *potentials* of the next—that would be introjection, not of the wave function of the past, but of the actuality of the past into that field from which the present is going to be projected. That would do exactly the sort of thing you're talking about. Because then you could build up a series of actualities introjected that would narrow down the field potential more and more, and these would form the basis of subsequent projections. That would account for the influence of the past on the present.<sup>20</sup>

Thus, we see that Bohm is clearly aware that his proposals naturally lead towards a 'presence of the past', or 'principle of precedence', quantum metaphysics.

At a later point in the discussion Sheldrake points out that:

If, however, you start using psychological language, and you start talking in terms of thought, then you've got a handier way of thinking of the influence of the past, because with mental fields you have memory. And one can extend this memory if one thinks of the whole universe as essentially thought-like, as many philosophical systems have done. You could say that if the whole universe is thought-like, then you automatically have a sort of cosmic memory developing. There are systems of thought that take exactly this view. One of them is a Mahayana Buddhist system—the idea of the Alayavijnana, store consciousness, is rather similar to the idea of cosmic memory.<sup>21</sup>

Here Sheldrake suggests that the implicate order, or implicate orders, and therefore the holomovement in general, should be considered to be more correctly characterised as being of the nature of thought, or mind, rather than matter. And, furthermore, he points to a connection with a Mahayana ('Great Vehicle') Buddhist metaphysical system which has as its central concept of a universal "store consciousness", which is called the Alayavijnana, or ground-consciousness.

The Alayavijnana, ground-consciousness, is described in the *Lankavatara Sutra*, which is an exposition of the Consciousness-Vehicle / Mind-Only (*Yogacara-Chittamatra*) Buddhist psycho-metaphysical perspective. This sutra expounds the manner in which the operations of the dualistic world, which involves the *appearance* of matter and play of the dualistic consciousnesses (*vijnana* – each sense organ is considered to have its own consciousness all of which are collected together by a mental consciousness) comes into being. Both the apparently material world and dualistic consciousness are considered to be ultimately unreal and illusory (because of not ultimately existing) productions out of an infinite field of potential

energy-awareness through the internal operation of ‘habit-energy’. The nature of the fundamental Mind-stuff itself is nondual energy-awareness, and the operations of habit-energy within it produces the ‘illusions’ of the dualistic world:

Mahamati, there are some Brahmans and Sramanas who assume something out of nothing, saying that there exists a substance which is bound up in causation and abides in time, ... [but, on the other hand] Mahamati, there are some Brahmans and Sramanas who recognising that the external world which is of Mind itself is seen as such [i.e. mistakenly seen as ‘real’ external ‘substance’] owing to the discrimination and false intellection practised since beginningless time, know that the world has no self-nature and has never been born, it is like a cloud, a ring produced by a firebrand, the castle of the Gandharvas, a vision, a mirage, the moon as reflected in the ocean, and a dream; that Mind in itself has nothing to do with discrimination and causation, discourses of imagination, and terms of qualification; that body, property, and abode are objectifications of the Alayavijnana, which is in itself above the dualism of subject and object; that the state of imagelessness which is in compliance with the awakening itself, is not affected by such changes as arising, abiding, and destruction.<sup>22</sup>

It is difficult for us to really appreciate the fact that the vast universe, with its impressive and overwhelming appearance of materiality is actually like “a cloud, a ring produced by a firebrand, the castle of the Gandharvas (illusory beings), a vision, a mirage, the moon as reflected in the ocean, and a dream” etched out of the ‘quantum dream stuff’, as the physicist Wojciech Zurek<sup>23</sup> refers to it, of the *alayavijnana* (nondual ground-consciousness) by the powerful forces of habit-energies echoing across vast time scales. But if we take quantum theory and quantum field theory seriously then something like this is the truth of things.

It is worth noting here that in this passage from a Dzogchen text we find the claim that: “the world has no self-nature and has never been born, it is like a cloud, a ring produced by a firebrand.” In the last chapter we covered the reason why some Buddhist schools of metaphysics assert that the world “has never been born”, this is because it actually does not inherently exist in the first place so could not have been born! We also came across the following quote from Bohm, reiterating, in another equivalent metaphor, the Dzogchen ‘ring produced by a firebrand’ analogy:

The notion of continuity of existence is approximated by that of very rapid recurrence of similar forms, changing in a simple and regular way (rather as a rapidly spinning bicycle wheel gives the impression of a solid disc, rather than of a sequence of rotating spokes).<sup>24</sup>

In his writings and discussions Bohm was quite careful to avoid fully positive ontological attributions for the nature of the implicate order(s), but he is explicit, as we have seen, that he does rule out the idea that the any of the various layers of reality are fully and solidly ‘material’. Thus, in *Wholeness* he wrote:

To obtain an understanding of the relationship of matter and consciousness has, however, thus far proved to be extremely difficult, and this difficulty has its root in the very great difference in their basic qualities as they present themselves in our experience. This difference has been expressed with particularly great clarity by Descartes, who described matter as ‘extended substance’ and consciousness as ‘thinking substance’. Evidently, by ‘extended substance’ Descartes meant something made up of distinct forms existing in space, in an order of extension and separation basically similar to the one that we have been calling explicate. By using the term ‘thinking substance’ in such sharp contrast to ‘extended substance’ he was clearly implying that the various distinct forms appearing in thought do not have their existence in such an order of extension and separation (i.e., some kind of space), but rather in a different order, in which extension and separations have no fundamental significance. The implicate order has just this latter quality, so in a certain sense Descartes was perhaps anticipating that consciousness has to be understood in terms of an order that is closer to the implicate than it is to the explicate.<sup>25</sup>

Here we see that the original definitions of mind, or consciousness, and matter used within Western philosophy, which pretty much match the definitions in Buddhist philosophy, rule out one of them transforming into the other. They are defined in a kind of mutual opposition: non-thinking extended-in-space matter-stuff cannot magically transform into immaterial thought-stuff, and vice-versa. Furthermore, physics has now reached the level beneath the appearance of the material world, the level of quantum field theory. And as the physicist Jonathan Allday, in his book *Quantum Reality: Theory and Philosophy*, tells us, quantum fields are ‘empty’ of substance. He writes:

Now, from a philosophical point of view, this is rather big stuff. Our whole manner of speech ... rather naturally makes us think that there is some stuff or *substance* on which properties can, in a sense, be glued. It encourages us to imagine taking a particle and removing its properties one by one until we are left with a featureless ‘thing’ devoid of properties, made from the essential material that had the properties in the first place. Philosophers have been debating the correctness of such arguments for a long time. Now, it seems, experimental science has come along and shown that, at least at the quantum level, the objects we study have no substance to them independent of their properties.<sup>26</sup>

However, there is no logical reason why a deep layer of quantum field thought-stuff cannot transmute into the appearance of matter-type stuff. Such a transformation regularly occurs in dreams!

The fact that Bohm tells us that “consciousness has to be understood in terms of an order that is closer to the implicate than it is to the explicate” indicates that the implicate order is of the nature of mind and not matter. This is not to say that the implicate order is made up of exactly the same kind of ‘stuff’ as ‘moves’ through a person’s mind when they consider making a cup of tea, its nature is obviously more profound than that! According to Bohm:

...matter and consciousness can both be understood in terms of the implicate order. We shall now show how the notions of implicate order that we have developed in connection with consciousness may be related to those concerning matter, to make possible an understanding of how both may have a common ground.<sup>27</sup>

It must be said that Bohm explicitly state the precise nature of his “common ground”. However, it does not take a ‘rocket scientist’ to figure out that if matter and consciousness emerge from the common ground of the implicate order, and the nature of the implicate order is “closer” to the nature of consciousness than it is to matter, then the implicate order must be some kind of energetic field which has the potentiality to produce pulses of matter like events as well as a field of consciousness which experience those matter-like events.

The term ‘matter-like events’ is used because, firstly, as we have seen previously Descartes’ notion of matter is antithetical to the definition of consciousness so the two could not co-exist as potentialities within a common field, and, secondly, it coincides precisely with Bohm’s own discourse. As Pylkkänen tells us:

... the building blocks of the Bohmian universe are moments, and are thus not permanent. Yet the essential idea of his ontology is the idea of the implicate order: each moment contains within it all the other moments in some way. It is the stability of the explicate order which makes each unfoldment, and a kind of “presence of the past”, possible.<sup>28</sup>

In such a “Bohmian universe” Cartesian type matter, which is actually what the word ‘matter’ refers to, has no place. Such ‘matter’ is self-enclosed independent extended ‘stuff’, the kind of stuff which has no room for any kind of “presence of the past” in the Bohmian sense. Pylkkänen continues:

According to Bohm, it is a very fundamental feature of the mode of the universe that it consists of moments. A moment has a limited duration as a moment; but it can continue its existence, at least in some sense, as an unfoldment, or trace in future moments. ... The explicate order thus provides a kind of continuity of existence and dependence of the present moment upon the past moments of the universe ... Without the explicate order there would be no way for past moments to exist in the present moment, and the world would lose its structure.<sup>29</sup>

As can be clearly comprehended from this characterisation, the understanding that there is continuity within the explicate order because of the process of enfoldment into the implicate order, followed by a future unfoldment of a ‘moment’, the nature of this future ‘moment’ being conditioned by the natures of moments in the past, is central. As Bohm says:

The quantum field contains information about the whole environment and about the whole past, which regulates the present activity ... in much the same way that information about the whole past and our whole environment regulates our own activity as human beings, through consciousness.<sup>30</sup>

Bohm describes his notion of ‘moment’:

In certain ways this notion is similar to Leibniz’s idea of monads, each of which ‘mirrors’ the whole in its own way, some in great detail and others rather vaguely. The difference is that Leibniz’s monads had a permanent existence, whereas our basic elements are only moments and are thus not permanent. Whitehead’s idea of ‘actual occasions’ is closer to the one proposed here, the main difference being that we use the implicate order to express the qualities and relationships of our moments, whereas Whitehead does this in a rather different way.<sup>31</sup>

According to the online Stanford Encyclopedia of Philosophy:

The ultimate expression of Leibniz's view comes in his celebrated theory of monads, in which the only beings that will count as genuine substances and hence be considered real are mind-like simple substances endowed with perception and appetite.<sup>32</sup>

And:

Whitehead’s ultimate ontology—the ontology of ‘the philosophy of organism’ or ‘process philosophy’—is one of internally related organism-like elementary processes (called ‘actual occasions’ or ‘actual entities’) in terms of which he could understand both lifeless nature and nature alive, both matter and mind ... [he] claims that not only our perception, but our experience in general is a stream of elementary processes of concrescence (growing together) of many feelings into one—“the many become one, and are increased with one”<sup>33</sup>

So, as we can see, the comparisons that Bohm himself makes indicates that his notion of a ‘moment’ can only be of the nature of experience, or mind. As Bohm indicated:

It follows, then, that the explicate and manifest order of consciousness is not ultimately distinct from that of matter in general. Fundamentally these are essentially different aspects of the one overall order. This explains a basic fact that we have pointed out earlier – that the explicate order of matter in

general is also in essence the sensuous explicate order that is presented in consciousness in ordinary experience.<sup>34</sup>

A 'moment' is a dualistic event wherein there is an experience of either an internal mental event, or a perception of a pulse of apparent 'external' materiality. Such a momentary dualistic event occurs primarily as an enfoldment of a previous 'moment' which then conditions and gives rise to the unfoldment of the next 'moment' in question.

The assertion that all phenomena are of a momentary nature is also shared by all schools of Buddhist metaphysics. The fact of momentariness is required by the central insight for Buddhist philosophy and spirituality of impermanence

So, the implicate order must be:

- 1) Nondual, undivided, whereas the explicate order is dualistic, divided into subject-object experience. This subject-object experience is a flow of 'moments' each of which are conditioned by the collectivity of moments which have preceded the current moment.
- 2) Is closer to the nature of consciousness, which means it must be of the nature of a deep level of Mind-energy.

The nature of this undivided common deep level of Mind should not be taken to be exactly like the 'stuff' of the minds of sentient beings as they manifest in the cogitations of everyday life. The individual 'minds' of sentient beings are dramatically stepped down in quality and power from the energy-potentiality of what is termed in Dzogchen Buddhism 'Primordial Mind'. The following passage comes from the chapter 'How Samsara and Nirvana Originated from the "Basis" as "the Appearances of the Basis"' from the book '*The Practice of Dzogchen*:

The primordial purity of the original basis transcends the extremes of existence and non-existence, and it is the great transcending of (the objects of) conception and expression. As the essence ... (of the basis) is primordially pure, it transcends the extreme of existence, eternalism, and it is not established as the phenomena of things or characteristics. As the nature (of the basis) is spontaneously accomplished, it transcends the extreme of non-existence, nihilism, and it is present as the purity, the ultimate nature ... of emptiness-clarity, as the nature of the primordial Buddha, as the state of changeless ultimate body (*Dharmakaya*), as non-existent either as samsara or nirvana, and as the self-arisen great intrinsic wisdom which is present from primordial time like space. ... The primordial purity, the basis, is present (in the mode of) essence [entity], nature [character], and compassion [power]. The essence is the ceaselessness of the changeless intrinsic wisdom, and it is called the nature of "the youthful vase body"....

Having broken the shell ... of the “youthful vase body,” the primordial basis of the originally pure inner ultimate sphere, by the flow ... of the energy/air of primordial wisdom, the self-appearances of the intrinsic awareness flash out ... <sup>35</sup>

Here in Dzogchen psycho-metaphysics, which has been to a large extent discovered through profound meditational states of direct investigation of the deep levels of awareness, we find a description of the insubstantial ground of reality which corresponds to quantum field theory, although from a subjective perspective. The techniques of meditation developed within Dzogchen, and in all Buddhist traditions, enable practitioners to be aware of profound levels of reality, levels which the Bohm called ‘implicate orders’, which are hidden to ordinary consciousness.

There are several significant points in this Dzogchen quote. The first is the reference to the fact that “the original basis transcends the extremes of existence and non-existence”. In Bohmian terms the ‘original basis’ corresponds to what Bohm, in his later thinking called the ‘super-implicate order’, the level at which particles enfold and unfold. The super-implicate order will also be at the level of quantum fields wherein particles manifest and are destroyed. Such quantum fields, then, organize the momentary ‘existence’ of ‘particles’ and their subsequent ‘non-existence’. Thus we see that the Dzogchen claim concerning the transcendence of “the extremes of existence and non-existence” as being a primary condition of the ultimate ground conforms to what is known about quantum fields. In the previous chapter we have seen that the existential configuration of quantum fields conforms to the nature of ‘emptiness’:

Its character is neither existent, nor non-existent,  
Nor both existent and non-existent, nor neither.  
Madhyamikas should know true reality  
That is free from these four possibilities.<sup>36</sup>

The Dzogchen text is reiterating this view, which is now validated within quantum theory.

The next significant point from the Dzogchen quote is that the ultimate nature is described as:

...emptiness-clarity, as the nature of the primordial Buddha, as the state of changeless ultimate body (*Dharmakaya*), as non-existent either as samsara or nirvana, and as the self-arisen great intrinsic wisdom which is present from primordial time like space...

The term “emptiness-clarity” relates to Bohm’ notion of the common ground within the implicate order from which the explicate derives. ‘Emptiness’ indicates the lack of any explicit manifestation, its existential configuration is “neither existent, nor non-existent, nor both existent and non-existent, nor neither”. ‘Clarity’ refers to the

cognizant-luminous capacity for explicit awareness, although it is not, in its nondual potentiality, explicit itself - *unless made so through advanced meditation practices*. This is an important point. Even though Bohm had many discussions with Jiddu Krishnamurti, he did not practice advanced meditations. Even the meditations advocated by Krishnamurti did not approach the depth of meditation practices of advanced Buddhist practitioners who can control their mind-streams to the level at which they are to be able to control their death process.

The “primordial Buddha” is the experiential aspect of pure expanse of utterly uncontaminated mind-energy at the very base of the process of reality, which is also “the state of changeless ultimate body (*Dharmakaya* - *body of potential phenomena*)”. At this level there is neither *samsara* - which is the repeated round of rebirth within the dualistic spheres of the process of reality, or *nirvana* - which is the relinquishing of *samsara*. The “self-arisen great intrinsic wisdom” refers to the fact that the ultimate ‘wisdom’, which is a direct experience of the ultimate mind-energy of reality, arises naturally as an interior facet of the process of reality because it is intrinsic to the very nature of the process of reality. A Tibetan Buddhist adept tells us that:

Self-arisen means self-liberated. Any phenomena whatsoever is the true nature of the energy of mind. Therefore, it is self-arisen and self-liberated. It is like a wave in the ocean. Where does the ocean’s wave come from? The ocean. And when the wave dissolves, what does it dissolve back into? The ocean. Both when it arises and when it dissolves, the wave is the ocean itself. Similarly, when any phenomena arises, it is the true nature of mind itself. And when it is liberated, it is the true nature of mind itself.<sup>37</sup>

The same applies to the direct wisdom which is a direct experience of the nondual mind-energy of the process of reality, it is not produced by anything other than the nature of reality itself. Because all phenomena are of the nature of the “energy of mind”, they are ultimately nothing other than this “energy of mind”, and a direct experience of this energy is “self-arisen great intrinsic wisdom”. The above quote concerning phenomena arising from a mind-energy ocean can be compared with Bohm’s observation:

The new form of insight can perhaps best be called *Undivided Wholeness in Flowing Movement*. This view implies that flow is, in some sense, prior to that of the ‘things’ that can be seen to form and dissolve in this flow. One can perhaps illustrate what is meant here by considering the ‘stream of consciousness’. This flux of awareness is not precisely definable, and yet it is evidently prior to the definable forms of thoughts and ideas which can be seen to form and dissolve in the flux, like ripples, waves and vortices in a flowing stream. As happens with such patterns of movement in a stream some thoughts recur and persist in a more or less stable way, while others are evanescent. The proposal for a new general form of insight is that all matter is of this nature: That is, there is a universal flux that cannot be defined

explicitly but which can be known only implicitly, as indicated by the explicitly definable forms and shapes, some stable and some unstable, that can be abstracted from the universal flux. In this flow, mind and matter are not separate substances. Rather, they are different aspects of one whole and unbroken movement.<sup>38</sup>

And here we find another resonance with the passage from the Dzogchen text we are contemplating in the context of Bohm's ideas. In the final section of the above Bohm passage he indicates that his view of the holomovement is that of a "flow" of a fundamental "flux of awareness" wherein "mind and matter are not separate substances". Compare this perspective with the Dzogchen view that:

The essence is the ceaselessness of the changeless intrinsic wisdom, and it is called the nature of "the youthful vase body".... Having broken the shell ... of the "youthful vase body," the primordial basis of the originally pure inner ultimate sphere, by the flow ... of the energy/air of primordial wisdom, the self-appearances of the intrinsic awareness flash out ...<sup>39</sup>

The "youthful vase body" is elucidated:

...a common metaphor in the Dzogchen teachings is that of a youthful image or 'body' enclosed within a vase. This signifies the dharmakaya in which all qualities are present but not visible from the outside. The body is described as youthful to indicate that these qualities are pure and pristine, untainted by samsara, and immune from birth and death. Chökyi Drakpa says: "Since the essence of the dharmakaya is beyond birth and death, it is described as youthful, and since there is a clarity that comes from its knowing aspect, it is called the vase body."<sup>40</sup>

So, it is the "flow ... of the energy/air of primordial wisdom" which breaks the 'vase' which contains the infinite potentialities of the *Dharmakaya*, which is the sphere of all potentialities, and as a consequence the dualistic "self-appearances of the intrinsic awareness flash out".

According to the text *Fundamental Mind: The Nyingma View of the Great Completeness*:

From its factor of luminous self-effulgence, it is called "self-arisen pristine wisdom." And due to its not changing in any aspect, it is called "fundamental mind." In other texts it is called "fundamental cognition" and "natural mind of clear light." From the viewpoint of its immutability, it is called "mind-vajra" ['vajra' = diamond-nature] since it does not undergo any change. The mind-vajra pervades wherever space is present, and thus this basal mind of clear light is called "that endowed with the space-vajra pervading space." Though it is taught with such synonyms, all of them are not different in fact from only the nondual sphere of reality and pristine wisdom, the noumenon of the mind, the ultimate mode of subsistence, the

vajra-like mind of enlightenment itself. Therefore, although it is called the “sphere of reality,” it is not to be understood as a mere empty sphere but as emptiness endowed with all supreme aspects, without any conjunction with or disjunction from luminosity. Though it is called “self-arisen,” it is to be understood not as a compounded awareness-endowed with marks, a subject realizing emptiness within a division of object and subject-but as having a luminous nature without even a particle of any mark to be designated as compounded.

The ‘self-arisen’ luminous-mind nondual ground of of the process of reality, which when activated within a mind-stream is “enlightenment itself” is the intrinsic nature of the implicate realms of the holomovement.

The process of reality must self-arise as a play of illusory appearances precisely because, ultimately, existence does not exist. That is to say fully manifested changeless existence cannot come into being precisely because this requires a change of non-being to being. But, for the same reason, i.e. the impossibility of substantial eternal changeless existence, neither can ‘non-existence’ fully ‘exist’. In other words, a complete and absolute lack of anything whatsoever, a complete absence of even absence, would have the same existential status as changeless existence, and cannot exist for the same reason! Therefore, a momentary dream state of illusion-like appearances, hovering between existence and non-existence naturally arises, with its own internal self-disclosing ‘wisdom’, which is a direct knowledge accessed in deep meditation.

In his meditation manual *Minding Closely: The Four Applications of Mindfulness*, the Dzogchen practitioner and teacher Alan Wallace describes the *alayavijnana*, the ground or substrate consciousness. He describes how, by using *shamatha* or focused meditation, a practitioner can experience the nature of a deep level of nondual awareness which lies beneath the everyday moving mind:

Everyone’s individual psyche is unique, like a snowflake. Your psyche is built from the experiences of this lifetime and is influenced by previous lifetimes, genetic dispositions, parenting, cultural values, and language, which make your psyche and everyone else’s absolutely unique. But if we melt any snow-flake, its fundamental ingredient is simply water. Similarly, when you or anyone “melts” the psyche by using shamatha, and it settles back into the substrate consciousness from which it arose, then the three traits that you or anyone will find, regardless of genetic and cultural background, are that the substrate consciousness is blissful, luminous, and noncon-ceptual.<sup>41</sup>

Wallace also indicates the quantum source of this level of consciousness. Consciousness arises from the same ‘emptiness’ of space as do apparently ‘material’ particles:

Quantum field theory includes very elegant theoretical systems and experimental methods to probe and characterize the nature of space. My undergraduate work in physics was focused on the energy that is implicit in the essence of space itself, called the “zero-point energy.” When Paul Dirac (1902-1984) mathematically integrated special relativity and quantum mechanics into quantum field theory, the concept of space was altered radically. In classical physics, space is inert - simply a location in which things can happen. In general relativity, space becomes far more interesting because it can be warped by massive objects. In quantum field theory, the very nature of empty space is characterized by the zero-point energy. Besides containing ordinary matter, space can contain energy in thermal, gravi-tational, electromagnetic, and other forms. When all such matter and energy is removed, what remains is the zero-point energy: the energy of empty space. The very nature of space can be thought of as an equilibrium, symmetry, or homogeneity - the same in every direction. But circumstances can break this symmetry, causing virtual particles to emerge spontaneously from “empty” space. A virtual electron or another elementary particle might be detected, but it will rapidly vanish with little effect. Other more durable phenomena also emerge from empty space, and we call them particles and fields. According to quantum field theory, all particles of matter and fields of energy, virtual and real, are simply configurations of empty space. From galaxies to wristwatches to dark matter and energy, everything emerges from and consists exclusively of configured space. Everything eventually dissolves back into space. Whether phenomena are ephemeral or durable, quantum field theory describes their common ground as the nature of space.<sup>42</sup>

The same must be true of the immaterial qualities of consciousness; there is nowhere else for this experiential qualitative continuum of awareness to arise from. The following quote from Stapp’s book *Mind, Matter and Quantum Mechanics* is appropriate here:

The physical world thus becomes an evolving structure of information, and of propensities of experiences to occur ... The new conception essentially fulfills the age old philosophical idea that nature should be made out of a kind of stuff that combines in an integrated and natural way certain mind-like and matter-like qualities, without being reduced to either classically conceived mind or classically conceived matter.<sup>43</sup>

In fact, given that all quantum fields are immaterial, it would seem to be quite reasonable to suppose that the fundamental nature of the realm of quantum fields is energetic potentiality and mind-awareness-energy, or Primordial Mind.

Within the Yogacara / Dzogchen perspective, the *alayavijnana*, the ground or store consciousness has a fundamental function of being the nondual ground which, like Bohm’s implicate order, is able to retain a memory of what has occurred in the past

and triggers future occurrences of a similar nature. According to the Buddhist worldview all actions performed by all unenlightened beings, including seemingly neutral perceptions, cause repercussions. *Karma-vipaka*, action and resultant effect, action and feedback, is the universal process of cause and effect which operates on all levels of reality, including the appearance of a material world, *karma-vipaka* is not limited to only the moral dimension. This means that there is a dimension of the operation of karma which is involved in the manifestation of what we perceive as an external 'material' reality:

...since beginningless time we have been perceiving sights, sounds, smells, tastes and bodily sensations and these perceptions have been creating imprints or latencies in the ground consciousness. Habituation of having experienced a certain visual form will create a latency for that very form. Eventually, that latency will manifest from the ground consciousness as a visual form again, but it will be perceived as external to ourselves.<sup>44</sup>

And:

...the mind is the principle creator of everything because sentient beings accumulate predisposing potencies through their actions, and these actions are directed by mental motivation. These potencies are what create not only their own lives but also the physical world around them. All environments are formed by *karma*, that is actions and the potencies they establish. The wind, sun, earth, trees, what is enjoyed, used, and suffered-all are produced from actions.<sup>45</sup>

The resemblance of this Buddhist perspective to the following insight from physicist John Wheeler is unmistakable and remarkable:

Directly opposite to the concept of universe as machine built on law is the vision of *a world self-synthesized*. On this view, the notes struck out on a piano by the observer participants of all times and all places, bits though they are in and by themselves, constitute the great wide world of space and time and things.<sup>46</sup>

This insight formed the basis for Wheeler's idea that the universe was self-created through an internal mechanism of quantum level 'self-perception'. Wheeler also indicated that he thought that all the phenomena of the process of reality originates ultimately from Mind or a fundamental level of consciousness:

Where does Space-Time come from?  
Is there any answer except that it comes from consciousness?<sup>47</sup>

This observation echoes a similar one made by Max Planck, a founding father of quantum theory:

All matter originates and exists only by virtue of a force... We must assume behind this force the existence of a conscious and intelligent Mind. This

Mind is the matrix of all matter.<sup>48</sup>

Such views clearly fit with the Dzogchen / Yogacara perspective.

The *alayavijnana* is described by Walpola Rahula as:

The deepest, finest and subtlest aspect layer of ... consciousness. It contains all the traces and impressions of past actions and all ... future potentialities.<sup>49</sup>

The Yogacara perspective describes the world of psychophysical embodiment as being comprised of seven consciousnesses, which are driven by, and emerge from the *alayavijnana*. The seven consciousnesses which are other than the ground consciousness, which is the eighth consciousness, comprise firstly the five basic sense consciousnesses which are associated with the faculties of sight, hearing, smell, touch and taste, and then the sixth is the mental consciousness. The seventh consciousness is a deluded awareness which conceives the psychophysical continuum to be an independent and separate entity, rather than a momentary sub-process located within a greater totality. The first six consciousnesses are all based on direct perceptions and are therefore temporary. The deluded layer of the mental process is aware of an apparent continuity amidst the flow of temporary impressions, causing a sense of continuity of a 'self'. This deluded mind aspect is known as the *klistamanas* and it overlaps with the store-consciousness, which is the most fundamental part of the mind process that stores the perceptions of every experience in the mental continuum. This creates the illusion that there is a permanent 'self'. According to Buddhism, of course, the perception of a permanent, unchanging 'self' is an illusion.

This perspective, again, matches up closely with that of Bohm. First we have the notion that human beings (and so all sentient beings) are ultimately interconnected with the entire universe:

Ultimately, the entire universe (with all its 'particles', including those constituting human beings, their laboratories, observing instruments, etc.) has to be understood as a single undivided whole, in which analysis into separately and independently existent parts has no fundamental status.<sup>50</sup>

But, nevertheless, human beings also function as if they are independent substructures or subunits which seem to have a degree of independence and separation:

We may begin by considering the individual human being as a relatively independent sub-totality, with a sufficient recurrence and stability of his total process (e.g., physical, chemical, neurological, mental, etc.) to enable him to subsist over a certain period of time. In this process we know it to be a fact that the physical state can affect the content of consciousness in many ways. ... Vice versa, we know that the content of consciousness can affect the physical state ... This connection of the mind and body has commonly been called psychosomatic (from the Greek 'psyche', meaning 'mind' and

‘soma’, meaning ‘body’). This word is generally used, however, in such a way as to imply that mind and body are separately existent but connected by some sort of interaction. Such a meaning is not compatible with the implicate order. In the implicate order we have to say that mind enfolds matter in general and therefore the body in particular. Similarly, the body enfolds not only the mind but also in some sense the entire material universe. (In the manner explained earlier in this section, both through the senses and through the fact that the constituent atoms of the body are actually structures that are enfolded in principle throughout all space.)<sup>51</sup>

When reading passages such as this from Bohm’s works it is important to keep in mind that terms such as ‘matter’, ‘material’, ‘body’, and so on, do not indicate Cartesian-type matter. The “entire material universe” is in fact an appearance of material reality, more akin to congealed mind-potential-energy, rather than independent, self-enclosed, ‘real’ material ‘stuff’. Thus the minds and material appearances, i.e. bodies, of sentient beings are sub-structures which are ultimately interconnected with the whole.

Furthermore, in the following passage from Bohm we can see a direct resonance with the Dzogchen / Yogacara worldview:

One reason why we do not generally notice the primacy of the implicate order is that we have become so habituated to the explicate order, and have emphasized it so much in our thought and language, that we tend strongly to feel that our primary experience is of that which is explicate and manifest. However, another reason, perhaps more important, is that the activation of memory recordings whose content is mainly that which is recurrent, stable, and separable, must evidently focus our attention very strongly on what is static and fragmented. This then contributes to the formation of an experience in which these static and fragmented features are often so intense that the more transitory and subtle features of the unbroken flow ... generally tend to pale into such seeming insignificance that one is, at best, only dimly conscious of them. Thus, an illusion may arise in which the manifest static and fragmented content of consciousness is experienced as the very basis of reality and from this illusion one may apparently obtain a proof of the correctness of that mode of thought in which this content is taken to be fundamental.<sup>52</sup>

In Buddhism this misunderstanding, the belief that a human being is a completely separate, independent, self-enclosed unit of reality, cut off and separate from the totality, is termed ‘ignorance’ (Sanskrit: *avidya* Pali: *avijja*). Ignorance is basically ignorance about the way that reality functions and what it amounts to. And the fundamental ignorance is ignorance of the fact that the entire process of dualistic ‘reality’ is a dream-like illusion driven by ‘craving’ for existence. And this craving gives rise to *dukkha*, which is suffering and dissatisfaction. The pervasiveness of

*dukkha* in the dualistic world is the first of the Four Noble ‘Truths’ or ‘Realities’: (i) the pervasiveness of *dukkha* within conditioned dualistic existence; (ii) the origin of *dukkha* which lies in the existence of ‘craving’; (iii) the possibility of the cessation of *dukkha*; (iv) the path to achieving cessation of *dukkha* by becoming enlightened. These ‘truths’ or ‘realities’ are called ‘noble’ truths (realities) because they are only *directly* seen to be ‘true’ by ‘noble’ beings, i.e. enlightened beings.

Enlightenment can be thought of as the activation of a level of consciousness which brings the interconnection of the totality of Bohm’s holomovement into everyday consciousness. This does not mean that everyday consciousness is completely turned off, enlightened beings are quite capable of turning on a light and cooking breakfast, but their everyday consciousness exists within the context of direct perception of the universal ground consciousness, the implicate order(s), which ‘exists’ as the background of everyday consciousness. In the following passage, taken from the commentary to the *Diamond Sutra* by the contemporary Chinese Buddhist teacher Hsing Yun, the ‘floating’ momentary appearances of dualistic everyday world are compared to ‘dust’ floating within ‘clarity of perfect awareness,’ the term ‘*lakshana*’ indicates momentary ‘characteristics’ or ‘signs,’ which we may interpret as activated ‘moments’ of dualistic experience:

Dust clouds the metaphorical pool of enlightened awareness. ... Lakshana rush into the mind and appear before it like clouds of dust-like lakshana; impure intentions are based on deluded visions of dust. Dust clouds the mind on all levels; matter is dust, illusion is dust, and thoughts and perception also are dust. Only the Tathagata sees the ‘vast realm of emptiness’ in which all of this floats in the clarity of perfect awareness.<sup>53</sup>

*Tathata* - ‘suchness’ - is a Buddhist term for the ultimate nature which manifests to a practitioner’s awareness when the true nature of the seeming truths of dualistic reality are penetrated and seen to be illusory. Thus practitioners who have achieved the ultimate realisation of *tathata*, the ‘thusness’ or ‘suchness’ of the process of reality, are called *tathagatas*, which literally means ‘those who have gone to thusness.’<sup>54</sup>

In the following passage the term “Kun-gZhi” is the Tibetan for the *alayavijnana*:

As the universal ground (*Kun-gZhi*) is the root of *samsara*, it is the foundation of all the traces, like a pond. As the *Dharmakaya* (ultimate body) is the root of *nirvana*, it is the freedom from all the traces, and it is the exhaustion of all contaminations... In the state of clear ocean-like *Dharmakaya*, which is dwelling at the basis, the boat-like universal ground filled with a mass of passengers – mind and consciousness and much cargo, karmas and traces – sets out on the path of enlightenment through the state of intrinsic awareness, *Dharmakaya*.<sup>55</sup>

Thus we see that the *alayavijnana* is likened to a boat, filled with a mass of sentient beings, which is coursing through the uncontaminated and clear “intrinsic awareness”

of the ultimate *Dharmakaya*. Here again we can see the connection with Bohm's notion of human beings as sub-structures within the process of the overall holomovement. But whilst the alayavijnana/holomovement is in operation the majority of sentient beings are unaware that ultimately the nature of the process of reality is that of the ultimate Dharmakaya, all else is actually an illusion. Up until the point when buddhahood is achieved and the Dharmakaya is realised, the holomovement operates through the alayavijnana, which determines the possible paths taken by sentient beings according to their karmic traces.

In the introduction to *Adorning Maitreya's Intent: Arriving at the View of Nonduality*, Buddhist translator Christian Bernert writes concerning the *alayavijnana*, which he translates as the 'all-base consciousness', that:

Without the existence of the consciousness, it would be difficult to account for the continuity of experience, rebirth, and the maturation of karma, in either the distant future or a future life. ... what is the link between an action carried out in the past and its karmic result in the future? According to Yogacara, it is the all-base consciousness that enables this process. It is termed "basis of all" because as the source of the other seven consciousness, it is the foundation of all experience. One of its main function is as a "storehouse," containing seeds (*bija*) and latencies (*vasana*) of all actions. Every karma, every deed of body, speech, and mind, leaves a mark or imprint on the most subtle mental continuum. These imprints are like seeds in the sense that they contain the potential for a future experience ...<sup>56</sup>

In this passage there is a reference to rebirth, which is a central feature of Buddhist psycho-metaphysics. It is important to understand the meaning of the notion of rebirth in the context of a worldview that also asserts that there is no fixed 'self' which could possibly exist from one moment to the next, let alone pass from one body to another from one lifetime to the next!

The important point that needs to be appreciated is that within Buddhism all phenomena are impermanent and momentary and therefore there is only ever an appearance of persistence, things appear to be unchanged from moment to moment. This applies to the sense of 'self' within all sentient beings. Because of the appearance of continuity the appearance of persistence is taken as being a 'real' independent 'self'. Furthermore, every sentient being does have a tiny degree of freedom to determine actions at any point in time, even though there is no permanent unchanging 'self' which makes decisions. Because all the energetic factors which make up a psycho-physical continuum function through dependent arising from one moment to the next, decisions made in any one moment will affect the qualities of consciousness, and the possibilities for decisions, at later points in time, without such a mechanism any spiritual path would be impossible. Because of this, although consciousness is momentary, because of interconnection between moments, it functions, and is experienced, as if there is a continuity.

At death enlightened beings, who have relinquished the deep seated ‘clinging’ (*upadana*) for embodiment, blissfully dissolve into the nondual ground of the process of reality. When unenlightened beings die, however, they give rise to a subtle ‘rebirth consciousness’ which carries karmic potentialities into a future rebirth and actively seeks to re-embody itself because of the quality of clinging generated during their lifetimes. This rebirth consciousness is like a ‘clinging’ quantum morphogenetic field carrying ‘seeds’ of potentiality derived from past actions. From the point of view of ordinary everyday consciousness the rebirth-consciousness is ‘unconscious’ and for most people their previous lives remain completely unconscious because the upper levels of gross consciousness do not have access to the rebirth level of awareness, which lies within the ground-consciousness (*alayavijnana*).

Physicist Henry Stapp has written a paper entitled *Compatibility of Contemporary Physical Theory with Personality Survival* in which he addresses this issue in the context of quantum theory. In the usual understanding, according to Stapp, a ‘reduction’ or ‘collapse’ of a quantum wavefunction of potentiality results in a psychophysical event. In other words there is a subjective experience which has an objective content. This corresponds exactly to the Yogacara view we have looked at. However, Stapp tells us that it is also possible for purely ‘physical’ events, or purely mental events, without a gross ‘physical’ aspect to take place:

...a natural resolution of the problem of biocentrism leads to a relaxing of the notion that all reduction events must be psychophysical events possessing both mental and physical components. That natural resolution of the biocentrism problem is to allow, in addition to the psychophysical reduction events that dynamically connect our human thoughts to the physically described world around us, reduction events that involve only physical properties. ... An analogous possibility exists on the mental side. William James drew attention to “the fantastic laws of clinging” that allow a stream of conscious thoughts, with its ever-changing intermingling of related ideas, to hang together like a persisting entity. If there were purely mentalistic laws of clinging, then in our normal streams of consciousness these mentalistic laws could be acting in coordination with the physical laws of clinging, to produce the coordinated streams of consciousness that we experience.<sup>57</sup>

Stapp, like Buddhism, suggests that such “laws of clinging” must be a primary aspect of the process of reality, underlying both physical and mental manifestations of the dualistic world. But in a Bohmian world where the implicate order is primary the mental laws of clinging are primary, creating the material appearances. As Stapp indicates:

This line of thought suggests that the mental laws of clinging could be the more basic, and that they could create the physical aspects....<sup>58</sup>

With this insight into the central importance of ‘mental clinging’ Stapp, following

William James, rediscovers a key psycho-metaphysical insight that the Buddha discovered and elucidated two and a half thousand years ago. As Stapp points out:

If the reduction events need not always be dual in character, but can sometimes be purely mental or purely physical, and if events of each pure kind can, under appropriate conditions, cling together by virtue of their own dynamical laws, then it would seemingly become possible for the mental and physical aspects of a living person to go their separate ways upon the death of the physical body.<sup>59</sup>

The body, of course, now disintegrates. But it is entirely reasonable to consider that the 'clinging' structure of mentality underlying this process, which according to Buddhism is not a fixed 'soul' but a developing energetic-psychic structure, would not dissipate but, as Buddhist psycho-metaphysics asserts, seek further rebirth. And, according to Buddhism, rebirth can be into a physical body, which is reincarnation, or into a purely mental realm.

Such a view is entirely consistent with Bohm's worldview. Bohm did not explicitly state such a feature as being part of his vision, but they are completely implicit within it:

Relativity theory calls for this sort of way of looking at the atomic particles, which constitute all matter, including of course human beings, with their brains, nervous systems ... So, approaching the question in different ways, relativity and quantum theory agree, in that they both imply the need to look on the world as an undivided whole, in which all parts of the universe, including the observer and his instruments, merge and unite in one totality. The new form of insight can perhaps best be called Undivided Wholeness in Flowing Movement. This view implies that flow is, in some sense, prior to that of the 'things' that can be seen to form and dissolve in this flow. One can perhaps illustrate what is meant here by considering the 'stream of consciousness'. This flux of awareness is not precisely definable, and yet it is evidently prior to the definable forms of thoughts and ideas which can be seen to form and dissolve in the flux, like ripples, waves and vortices in a flowing stream. As happens with such patterns of movement in a stream some thoughts recur and persist in a more or less stable way, while others are evanescent. The proposal for a new general form of insight is that all matter is of this nature: That is, there is a universal flux that cannot be defined explicitly but which can be known only implicitly, as indicated by the explicitly definable forms and shapes, some stable and some unstable, that can be abstracted from the universal flux. In this flow, mind and matter are not separate substances. Rather, they are different aspects of one whole and unbroken movement.<sup>60</sup>

The Quantum-Mind-Only mechanism (I use the term 'Quantum-Mind-Only' to refer

more generally to the Quantum-Yogacara-Dzogchen perspective outlined above, rather than Tibetan Cittamatra) which accounts for the transformation of quantum mind potentiality into *the appearance* of matter can be called *karmic resonance*. All actions and perceptions leave potencies within a deep level of collective mind called the *alayavijnana*, or ground-consciousness, a level of the process of reality which can be shown to correspond to the realm of quantum emptiness or potentiality. When these potencies are activated through being combined with potencies within the mind-streams of vast numbers of other sentient beings an inter-subjective creation of a shared material environment comes into being. This description of the process of reality, including the production of the inter-subjective illusion of the material world, involves the mechanism of karmic cause and effect or quantum resonance, the carrying forward and subsequent inter-subjective activation of potencies within a deep collective mind-stream. When the subjective potencies resonate together in a reinforcing manner due their overall similarity the collective experiential solidity of the apparently independent material world emerges. From this perspective the 'objective' world of apparent material reality is an inter-subjective creation on the part of all sentient beings who have ever 'existed' and 'exist' within the universe. Within this collective dream-like manifestation, which manifests within the potentialities of the overall Mind-Energy-Potentiality of the process of reality, which Bohm calls the 'holomovement', each relatively independent sentient being have their own 'clinging' quantum-mental continuity of mind-energy, which manifests as individuated consciousness..

Within both Yogacara-Vijnanavada (Consciousness-Basis) and Dzogchen (Great Perfection or Completion) Buddhist metaphysical perspectives, the primordial ground is not only conceived of as a field of 'empty' potentiality (which is to say 'empty' of any particular manifestation), it is also asserted as having the fundamental and inseparable function of cognition. The ground of the universe is an infinite pool of potentiality and awareness, or empty-cognizance, which must create the infinite 'illusions' within the dualistic experiential realm because of its fundamental nature of awareness has the impetus to explore its own nature through cognitive activity. Herbert V, Guenther, in his book on Dzogchen metaphysics *The Matrix of Mystery* explains this 'pristine' cognitiveness of the fundamental 'matrix':

What this term refers to derives directly from the self-excitatoriness (*rang-rig*) of the field as the universe of and for experience, and as such denotes a sensitivity and alertness that makes cognition possible as such on every level of the biosphere. This pristine cognition has a self-referential intentionality of atemporal primordiality...<sup>61</sup>

Thus we are returned, within a Buddhist context, to Wheeler's vision of the universe as a 'self-synthesized' universe, or the Dzogchen 'self-excitatory universe', which comes into being through an infinite web of internal self-perceptions. The only way that the universe could 'unfold' from within itself in this manner is if the ground contained both the potentialities and the cognitive mechanism of perceptual

‘unfoldment’ within its own nature:

In Dzogchen thought there is the additional factor of intelligence which inheres in the very dynamics of the universe itself, and which makes primordiality of experience of paramount importance. The atemporal onset of this unfoldment occasions the emergence of various intentional structures...<sup>62</sup>

As Bohm pointed out:

We can say that human meanings make a contribution to the cosmos, but we can also say that the cosmos may be ordered according to a kind of ‘objective’ meaning. New meanings may emerge in this overall order. That is we may say that meaning penetrates the cosmos, or even what is beyond the cosmos. For example there are current theories in physics that imply that the universe emerged from the ‘big bang’. In the earliest phase there were no electrons, protons, neutrons, or other basic structures. None of the laws that we know would have had any meaning. Even space and time in their present well-defined form would have had no meaning. All of this emerged from a very different state of affairs. The proposal is that, as happens with human beings, this emergence included the creative unfoldment of generalized meaning.<sup>63</sup>

Each sentient being is an individualized structure of experiential meaning-values embodied within individualised consciousness, each sentient being embodies a fundamental evolutionary impetus to maximise the overall meaning value of the individualized meaning-matrix, the final endpoint being enlightenment, wherein the limited awareness of a sentient being dissolves into its universal source, which is the ultimate nondual meaning-field.

Guenther describes the beginning phases of the evolution of the manifested and materialized world of dualistic experience from the ‘evolutionary zero point’ according to the Dzogchen worldview as follows:

It is excitatory intelligence that provides the necessary programming information for initiating a dramatic unfolding process (the big bang) tending towards ever greater degrees of complexity (the evolving universe) while simultaneously, throughout all its phases, retaining the intelligence that initiated the process. When this big bang occurs, the surging of intelligence-qua-isotropic radiation develops a special envelope-like structuring of radiation field...The unitary process as an envelope-like structure which results from this surging of intelligence is termed the meaning-saturated field as pristine cognitiveness.<sup>64</sup>

At this level of development there is a cascade of quantum templates of meaning-manifestation, levels of quantum downward evolution from the nondual zero point, levels that Bohm termed ‘implicate orders’. Each implicate order enfolds a new

level of meaning evolution in a quantum descent into apparent materiality, and this descent requires the materialization of sentient beings as carriers of individualized awareness of a particular locus of meaning-awareness. Thus Bohm tells us that:

Later, with the evolution of new forms of life, fundamentally new steps may have evolved in the creative unfoldment of further meanings. That is, we may say that some evolutionary processes occur which could be traced physically, but we cannot really understand them without looking at some deeper meaning which was responsible for the changes. The present view of the changes is that they are random, with selection of those traits that were suited for survival, but that does not explain the complex, subtle structures that actually occurred. <sup>65</sup>

Here Bohm indicates the serious shortcomings of the materialistic and mechanistic view of the evolutionary process enshrined in the materialistic vision of the Darwinian evolutionary process.

In contrast to the now completely unacceptable, and debunked, vision of the lifeless magically produced life through the blind chaotic mechanical churning of mindless bits and pieces of inert matter, Bohm suggested that evolution must be driven by an intentionality which acts towards the manifestation of life through increasingly more materialized levels of quantum potentiality, a quantum potentiality which has an internal meaning-function, or force-for-meaning. Evolution, according to Bohm, must essentially be a more intentional quantum process by which subtle quantum structures cascade down to less subtle levels to eventually become fully apparently 'materialized' meaning-structures.

In the imagery of Dzogchen, this is the 'excitatory intelligence' which manifests through the subtle or 'implicate' quantum levels towards manifestation on an apparently materialized level, it creates 'envelopes' which we can identify as quantum demarcation structures which designate boundaries within the cognitive process of materialization. These quantum structures, which may be compared to what Sheldrake terms 'quantum morphogenetic fields', mark out areas of differentiation between the activity of subjective cognition and the projected stabilized cognized objects; and in this way the 'pristine cognitiveness' hides its unitary nature in an imaginational field of activity, a field of activity within which the possibilities for the evolution of sentient beings and the collective environments shared by the various varieties of sentient beings takes shape.

This dramatic psycho-metaphysical perspective is articulated within the Buddhist Dzogchen tradition in texts such as *You Are the Eyes of the World*, composed by the remarkable fourteenth century practitioner-yogi Longchenpa:

Listen, because all you beings of the three realms

Were made by me, the creativity of the universe,  
You are my children, equal to me.  
Because you and I are not separate,  
I manifest in you.<sup>66</sup>

Again, we can find echoes in such Dzogchen view within the work of Bohm:

One must then go on to a consideration of time as a projection of multidimensional reality into a sequence of moments. Such a projection can be described as creative, rather than mechanical, for by creativity one means just the inception of new content, which unfolds into a sequence of moments that is not completely derivable from what came earlier in this sequence or set of such sequences. What we are saying is, then, that movement is basically such a creative inception of new content as projected from the multidimensional ground. In contrast, what is mechanical is a relatively autonomous sub-totality that can be abstracted from that which is basically a creative movement of unfoldment. How, then, are we to consider the evolution of life as this is generally formulated in biology? First, it has to be pointed out that the very word ‘evolution’ (whose literal meaning is ‘unrolling’) is too mechanistic in its connotation to serve properly in this context. Rather, as we have already pointed out above, we should say that various successive living forms unfold creatively.<sup>67</sup>

And in *Science, Order, and Creativity* Bohm and Peat write:

If creative intelligence originates in the infinitely subtle depths of the generative order, which is basically not in the order of time, then it follows that the discussion of creative intelligence must bring in this timeless order in a fundamental way. This order must be considered all at once, rather than in an order of succession. ... In terms of the implicate order, it is clear that if the flow were only from the subtler to the more manifest, then it would reduce to a purely timeless order ... Such an order could in a certain sense be intensely creative. But if what happens in one moment would not be related to the next moment, such creativity would resemble an arbitrary series of kaleidoscopic changes with little total meaning. Moreover, more manifest levels would have no autonomy in relation to the subtler levels. A more meaningful kind of creativity can be obtained by relating the eternal order to the time order, and by allowing the more manifest orders to have some degree of relative autonomy.<sup>68</sup>

Here we see that in Bohm’s perspective there is both a downward creativity from the “eternal order”, as well as a necessary ‘presence of the past’ “time order” which operates within the manifest, or explicate, order.

According to Longchenpa:

Out of the state of pure and total presence, the impetus for everything

From which come the five great elements whose very being is this state,  
I, the creativity of the universe,  
Arise as teacher, in five forms of pure and total presence.<sup>69</sup>

These “five teachers,” which are generated by the “creativity of the universe which fashions everything,”<sup>70</sup> are earth, water, fire, wind and space, in other words all the factors which make up the dualistic world of experience. And:

If I [the state of pure and total presence which is the creativity of the universe] did not exist, you would not exist.  
When you do not exist, the five teachers [i.e. the dualistic and material world of experience] also do not come about...<sup>71</sup>

It is intriguing to compare these observations with some of Wheeler’s, such as:

Yes, oh universe, without you I would not have been able to come into being.  
Yet you, great system, are made of phenomena; and every phenomena rests on an act of observation. You could never even exist without elementary acts of registration such as mine.<sup>72</sup>

What Wheeler refers to as the “imagination” of a primordial consciousness that “brings all of creation into being,” corresponds precisely to Longchenpa’s “majestic creativity [of the universe] which fashions everything.”<sup>73</sup>

According to Guenther:

In the human context, intelligence reaches into man’s life as his spirituality, constituting itself as human subjectivity. The latter, therefore, is not an immutable essence; rather it is a product of an overall evolutionary force moving in an optimizing direction, thereby enabling the subject to transcend itself by overcoming its limited domains. This force is felt as giving meaning to man’s life and is experienced as having existential significance.<sup>74</sup>

In the Buddhist Dzogchen worldview, which is fully in accord with modern physics, and is also remarkably consistent and resonant with Bohm’s ideas, we have an inspiring vision of the universe as a meaning-machine, or meaning-organism, using sentient beings both as creative agents and also agents of transcendence reaching towards ever greater vistas of universal meaning-values. This perspective indicates a universal directedness towards ever more universal modes of experience within consciousness, the ultimate experience being ‘enlightenment’, which is full awareness of the expanse of the totality.

This view resonates vibrantly with views Bohm advanced in an important discussion with Renee Weber, *‘Meaning as being in the implicate order philosophy of David Bohm’*. In this discussion Bohm makes the following striking comments:

Meaning is the essence of reality.<sup>75</sup>

And:

Being and knowing are inseparable.<sup>76</sup>

And this is a very profound and unconventional insight which needs careful consideration, Here is the start of the discussion:

**Weber:** You are more and more interested in meaning, so can we explore what meaning is ...?

**Bohm:** ... it is the essential feature of consciousness, ... meaning is being as far as the mind is concerned.

**Weber:** *Is meaning being?*

**Bohm:** Yes. A change of meaning is a change of being. If we say consciousness is its content, therefore consciousness is meaning. We could widen this to a more general kind of meaning that may be the essence of all matter as meaning.<sup>77</sup>

It is important to understand the deeply novel perspective that Bohm is proposing here. Bohm has suggested that the realms of consciousness and the appearance of matter derives from a deeper unified common ground. In the above statements Bohm now indicates that this common ground is fundamentally of the nature of meaning, perhaps we may call this common ground a 'quantum meaning field':

The universe is supposed to have started from this big bang. We might say that that is the formation of a certain meaning and a certain structure of meaning which unfolds. There could be other universes, within this sea of infinite energy. Let's look at basics: meaning, energy, matter and, ultimately, self-awareness. Meaning infuses and informs energy, giving it shape and form. Now a certain form is matter, which is energy which has stabilized into a regular form, more or less stable, with some independence. But there must be a meaning that is behind it. ... it would be a formative cause, a field of meaning. ... meaning runs through the implicate order as well as the explicate order, at all levels. ... and would apply at all levels of implication, inner and outer. ... This is a universe that is alive ... and somehow conscious at all its levels.<sup>78</sup>

According to Bohm, "consciousness is meaning" and also "the essence of all matter is meaning". This would seem to suggest that Bohm considers that meaning may underpin both consciousness and the appearance of matter. Here is another insight from the discussion with Weber:

**Weber:** ... is there meaning in the non-human world, in the world of nature, and in the universe as a whole?

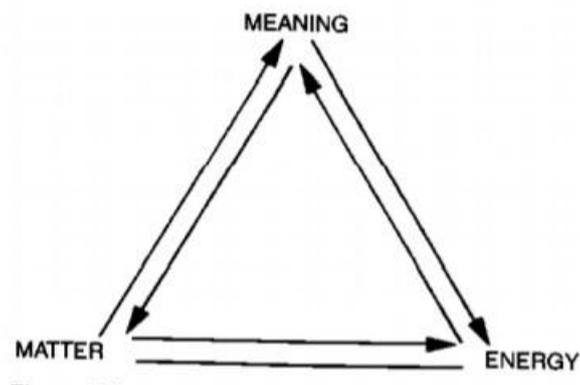
**Bohm:** That's what I am proposing ; not only that there is meaning to it, but rather *that it is meaning...*<sup>79</sup>

Thus, Bohm indicates that meaning suffuses the entire holomovement; the meaning-field unfolds into more explicit meanings as it unfolds through implicate orders towards the explicate level. The whole process itself, however, is suffused

with degrees of the existential quality of meaning.

In the article ‘Soma-Significance and the Activity of Meaning’ Bohm emphasizes that he considers that ‘meaning’ is a primary quality internal to the universe. According to Bohm ‘meaning’ can be considered to be the most fundamental aspect of reality because it enfolds the other aspects of consciousness and ‘matter’, and it can also enfold itself, which is to say that it is possible to have multiple levels of meanings; higher level meanings can relate together meanings on levels beneath it, and so enfold them into a unity. So because the qualitative aspect of ‘meaning’ enfolds all three aspects, including itself, it is the fundamental aspect of experience:

... meaning refers to itself directly and this is in fact the basis of the possibility of that intelligence which can comprehend the whole, including itself. On the other hand, matter and energy obtain their self-reference only indirectly, first through meaning.<sup>80</sup>



The foundational existential qualitative dimension of Meaning makes all comprehension and understanding possible. And it also underlies the creation of the appearance of the material world. The quality of ‘meaning’, which results from the functioning and unfoldment of consciousness, is able to refer to itself and thus can act as a basis for a self-referring, self-creating or self-perceiving universe. Bohm indicates that meaning is a self-referring function that is intrinsic to reality; it is the inner quality of the universe:

Rather than ask what is the meaning of this universe, we would have to say that the universe *is* its meaning. ... And of course, we are referring not just to the meaning of the universe for us, but its meaning ‘for itself’, or the meaning of the whole for itself.<sup>81</sup>

Without this inner quality of meaning being intrinsic to the universe from the start the universe could never mean anything, to itself or to anything within it. The function of meaning, then, can be looked at as the central source of the experiential polar

aspects of mind and matter. Matter is an appearance of objective meaning to mind, and individuated consciousness, or awareness, is the ground of subjectively experienced meaning. In a dramatic moment Bohm declares:

We do not know how far the self-awareness would go, but if you were religious, you would believe it in the sense of God, or of something that would be totally self-aware.<sup>82</sup>

Within Yogacara and Dzogchen Buddhism this nondual “totally self-aware” ground field, from which all manifestation originates, is the Dharmakaya, which has the internal aspect of ‘suchness’ - *Tathata* or pure Meaning-Being.

...suchness is undifferentiable, which refers to the true nature of the mind abiding without change and interruption as being similar in type from sentient beings up through buddhas. This nature of the mind is taught through many names and examples. In the sutras, it is referred to as prajnaparamita [‘perfection of transcendent wisdom’], ultimate reality, the true end, the basic nature, the unchanging perfect nature, the nature of phenomena, mind as such, emptiness, and so on. In the mantrayana it has many synonyms such as primordial protector, connate wisdom, great bindu, natural luminosity, and Mahamudra [‘the Great Seal’]. This pure luminous nature is obscured by cloud-like adventitious stains, which arise simultaneously with it, like film on gold, and consist of the consciousnesses that manifest as the dualistic appearances of apprehender and apprehended. They [i.e. the dualistic consciousnesses associated with seeing, hearing, smelling, tasting, touching and mental apprehension] are given many names, such as alaya-consciousness, dependent nature, mistakenness of the seeming, and the ground of the latent tendencies of ignorance. ... [By practice] ... the basic nature is realized perfectly and the adventitious stains eradicated, which leads to the manifestation of the buddha heart. This is called “dharmakaya.” Since this natural luminosity was primordially never tainted by stains, there is nothing to be removed in it – the stains are fabricated and adventitious, and therefore the basic element is empty of them.<sup>83</sup>

Here is the Dzogchen description from the inspirational work *Buddhahood without Meditation* which contains Dzogchen psycho-metaphysical doctrines revealed to the nineteenth century Dzogchen master Dudjom Lingpa:

The cause is the ground of being as basic space which is pristinely lucid and endowed with the capacity for anything whatsoever to arise. The condition is a consciousness that conceives of an I. From the coming together of these two, all sensory appearances manifest like illusions. In this way, the ground of being as basic space, ordinary mind that arises from the dynamic energy of that ground, and the external and internal phenomena that constitute the manifest aspect of that mind are all interlinked like the sun and its rays.<sup>84</sup>

This indicates the operation of an infinitely fertile universal potentiality-ground which

can bring into being an extraordinary appearance of a vast ‘material’ universe containing infinite varieties of consciousnesses, all of which inhabit an individualized field of meaning-values. Each sentient being is an individualized structure of meaning-values which are not static but partake of a fundamental evolutionary impetus to maximize the overall meaning-value of the individualized meaning-matrix. This remarkable vision of the universe as a meaning-machine, using sentient beings both as creative agents and also agents of transcendence reaching towards ever greater vistas of universal meaning-values, indicates a universal directedness which provides the context for the concerns of spiritual practice.

The very first glimmer of manifestation occurs when the ‘pristine lucidity’ or ‘awareness’ which is an innate aspect of the ground of being stirs with the conception of an ‘I’. In other words this is the first movement within the quantum ground of ‘emptiness and cognizance’ in the direction of manifestation. It is the first quantum field creation operator. Following this a dramatic manifestation takes place within which the apparently material world arises as a container for the consciousnesses which will evolve through the evolution of sentient beings inhabiting the material container:

Yet regarding the sensory appearances of the outer world as a container, the animate beings contained therein, and the objects manifesting in between... when you go to sleep, the outer sensory appearances of the inanimate universe, the outer container, the animate beings contained therein, and the objects manifesting in between as the five kinds of sensory stimuli dissolve into the space of the unconscious blankness of the ground of all ordinary experience, just like the artifices of a magical illusion collapsing in basic space.<sup>85</sup>

And embodied consciousness is actually a direct manifestation of the infinite power of the energetic awareness of the ground of reality; it is in fact *the innate glow of the ground of being*:

When the true face of the ground aspect of buddhahood - a state of purity and mastery of the ground of being - is obscured by the nonrecognition of awareness, ... timeless awareness - the innate glow of the ground of being - subside into an inner glow whose radiance is directed outwards ...<sup>86</sup>

The implications of this are profound. Just about all sentient beings are entirely unaware that their everyday consciousness is actually ‘the innate glow of the ground of being’ and because of this their awareness is completely directed into the external environment. Furthermore, such unaware beings think that the apparently material world is a ‘real’ material world; a ‘real’ and ultimately mindless material world that somehow magically gives rise to an aspect of manifestation – consciousness – that has little import beyond enabling a lumbering bit of organic matter to survive on a hunk of rock hurtling through space for a paltry few years. Most human beings do not realize that if they turn their consciousness around and, using precise meditation techniques,

explore the deeper levels of their embodied consciousness they can discover that embodied consciousness is indeed ‘the innate glow of the ground of being.’ Furthermore the experiences that can be produced in this way will confirm the Dzogchen view that this is exactly why the universe manifested – so that embodied consciousness can come to know the extraordinary qualities of the ‘glow of the ground of being’.

What is enlightenment? It is the direct nonconceptual understanding of the ground of Being by the fundamental cognizant aspect of the ground of Being itself. In other words enlightenment occurs when the ground of Being fully and directly and nonconceptually cognizes, comprehends and understands its own nature through the agency of a sentient human being (assuming that animals cannot become enlightened). This is brilliantly explained in the excellent Dzogchen text *Wonders of the Natural Mind* by Tenzin Wangyal Rinpoche. The ground of Being is characterized within Dzogchen as an ‘empty’ energy field of potentiality which has an internal spontaneous cognizant quality. The field of potentiality is designated ‘emptiness’ and the internal spontaneous cognizant quality is designated ‘luminosity’ or ‘clarity’. Tenzin Wangyal Rinpoche writes:

Who then understands emptiness? There is the self-understanding of emptiness by emptiness itself, by the clarity aspect of emptiness that enables understanding by direct perception. Understanding is not separate from emptiness. Emptiness understands itself and illuminates itself, ... Herein lies the inseparability of emptiness and clarity; self-understanding is self-clarity or self-awareness.<sup>87</sup>

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<sup>1</sup> Wholeness 225

<sup>2</sup> Wholeness xviii

<sup>3</sup> Wholeness 188

<sup>4</sup> Wholeness 190

<sup>5</sup> SOC 171

<sup>6</sup> UU 354-357

<sup>7</sup> MMIO 24 quoted

<sup>8</sup> MMIO 26

<sup>9</sup> Stapp, Henry (2004) p223

<sup>10</sup> Hawking, Stephen & Mlodinow, Leonard (2010) p83

<sup>11</sup> Hawking, Stephen & Mlodinow, Leonard (2010) p136

<sup>12</sup> UU 314

<sup>13</sup> Wholeness 244

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