Between the Moon and Earth by Jay Alfred

A Scientific Exploration of Earth-Based Heavens and Hells



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Cover Photograph: Separate images of the Earth and Moon, which were taken in 1992 by the Galileo spacecraft, were combined to generate this view. Courtesy of NASA/JPL-Caltech



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Our Invisible Bodies Brains and Realities

Prologue

Since the dawn of history, various cultures have imagined heaven and the abode of gods to be literally located in some part of the sky; and have imagined hell to be in the interior of the Earth.

This book presents a model, supported by scientific and metaphysical evidence, which validates this intuitive view. It appears that after death, most human beings will indeed find themselves in a higher frequency sphere which interpenetrates and shares the same space and gravitational field as the familiar physical form of planet Earth and will move about using high-energy magnetic plasma (or 'magma' for short) bodies. Depending on the nature of their bodies they gravitate or levitate into particular 'shells' in the relevant sphere—'higher' shells being coincident with the physical atmosphere of this planet and 'lower' shells coincident or below the surface of the Earth.

In the final analysis, 'heavens' and 'hells' must be considered loose terms that signify extreme locations which bring intense joy or intense suffering and terror to the observer, respectively. There is probably a spectrum of locations which bring different degrees of joy and suffering between heaven and hell. This book presents simply the evidence for these locations relative to the physical Earth that we are more familiar with. As technology and science advances, there are many who share the author's view that the lowest frequency heavens and hells may be detectable through our instruments, even before the end of this century.

While the nature of the (magnetic plasma) bodies has been discussed in detail in the author's book 'Our Invisible Bodies,' this book expands on the nature of the Earth-based heavens and hells, first introduced in the previous book. Both books introduce the reader to a new field which the author describes as 'plasma metaphysics.' Hopefully, others will expand, elaborate and modify the theories presented in the two books to better fit the metaphysical and physical evidence; and bring plasma metaphysics to the next stage of development.

Our Invisible Bodies

Those who have read the author's book 'Our Invisible Bodies' will notice that quantum effects in relation to the magmaspheres and magma bodies have been de-emphasised in this book. Instead, wherever possible, metaphysical observations have been explained using classical plasma physics. This is because a closer analysis shows that plasma objects can mimic the behavior and properties of quantum objects and share much of the weirdness of quantum objects—including the ability to 'go through' each other and change appearances in response to thoughts via mechanisms that will be explained in the book.

This book deals mainly with the macroscopic bodies that accompany the physical body. The microscopic particle bodies which have been identified in 'Our Invisible Bodies' have been ignored for the sake of brevity and to enhance the focus of this book.

Certain terminologies have also been refined. The 'causal' sphere is now restricted to the particle-based 'near-void' sphere. The lower causal magmasphere will now be described simply as a 'higher energy sphere.' Furthermore, 'rings' in the magmasphere (which is based on a two-dimensional perspective) is now described as 'shells' (which is based on a threedimensional perspective).

The Journey

We will review the history of heavens and hells in religion and history. We will then describe the role of plasma in our universe and the geophysical structure of the Earth system. This will give you the background knowledge to follow the arguments in building a model, based on plasma physics, to locate the traditional heavens and hells; and understand their nature. We will then explore interactions between our world and the parallel worlds in which these heavens and hells exist. We will end by looking at how the Earth system is connected to the rest of the Solar System and the universe as a whole.

Jay Alfred May 2006 Every soul is ordained to wander between incarnations in the region between the Moon and Earth.

> Plutarch, Ancient Greek Philosopher

CHAPTER 1

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What's the Weather in Heaven Today?

Earth-Based Heavens In Religion & History

According to Hiralal Kaji, a metaphysicist, all non-physical (more accurately 'super-physical') planes are more or less only a few hundred kilometres away from the Earth and on the outer border of the atmosphere.¹ This is also stated or implied in the world's religious scriptures:

From where the sun arises to where it sets, There all the gods are suspended; ... As god he dwells in the atmosphere ...

> Katha Upanishad, Hindu Scriptures²

For who in the sky is comparable to Yahweh?

Psalms, Jewish Old Testament ³

...as they were watching, he was lifted up, and a cloud took him out of their sight. While he was going and they were gazing up toward heaven suddenly two men in white robes stood by them. They said 'This Jesus, who has been taken up from you into heaven, will come in the same way as you saw him go into heaven.'

> The Acts of the Apostles, Christian New Testament ⁴

Earth-Based Heavens

Charles Leadbeater, the renowned twentieth-century metaphysicist, says that the average person, passing into heaven-life, tends to float at a considerable distance above the surface of the Earth.⁵

According to Edward Wright, Associated Professor of 'Hebrew Bible and Early Judaism' at the University of Arizona, the Egyptians can be credited with having one of the earliest concepts of human beings having an afterlife in the heavenly realms. The peoples of Mesopotamia and elsewhere, he says, also imagined that there was a realm 'up there' populated by divine beings. 'Since such a theme appears so widespread in human history, it is impossible to credit one culture with having invented it,' he concludes.

It is interesting to note that in Greek, the same word is used for both 'heaven' and 'sky' i.e. 'ouranos.' The same is true with Hebrew and Aramaic, one word for both sky and heaven. Maybe the two are not meant to be distinguished from one another. The idea of heaven as a physical place has existed since the dawn of religion and human civilization. In some early religions such as in the Egyptian faith, heaven was a physical place far above the Earth. Departed souls are believed to undergo a literal journey to reach heaven, along the way being blocked by hazards and entities who try to deny the soul from reaching heaven. One popular medieval view of heaven was that it existed as a physical place above the clouds and that God and the Angels were physically above, watching over man. In the Book of Genesis we are told:

'And the LORD *came down* to see the city and the tower, which the children of men built...

Genesis, Jewish Old Testament ⁶

The idea that God had to *come down* from heaven to see what was going on... and had to stop them for fear that they would reach heaven, lends credence to the idea that heaven may really be a physical place in the sky and not very faraway.

Mountain Summits

According to Professor Wright, Canaanites believed that the 'high gods' lived as part of a great diverse assembly in heaven or on the heights of tall mountains. In fact, many cultures located their gods on the summits of mountains. The 'Twelve Olympians' in Greek mythology, who were the principal gods of the Greek pantheon, were believed to reside atop Mount Olympus.⁷ Moses went up to Mount Sinai to 'speak' to God. Jesus went up to a mountain on the day of his transfiguration. All these mountains are less than ten kilometres from the surface of the Earth.

Ladders to Heaven

As heaven was above us, there were numerous attempts to construct temples, stepped pyramids and ziggurats to reach heaven all over the world. The Egyptian pyramids had internal staircases and alleys with openings pointing towards specific destinations in the sky. Ladders reaching towards heaven have often been cited in religious literature—from Jacob in the Old Testament to Muhammad in the Quran. Even in ancient Egyptian scriptures ladders are mentioned:

Now let the ladder of the god be given to me, let the ladder of Seth be given to me, that I may ascend on it to the sky and escort Re' as a divine guardian of those who have gone to their doubles.

Pyramid Texts 1:166

Ascensions to Heaven

Besides the most well-known account of an ascension by Jesus (of Nazareth) into heaven (which interpenetrates or shares the same space as our 'physical sky') found narrated in the 'Acts of the Apostles' in the Christian Bible and the assumption of Mary into heaven in Catholic pronouncements; there are numerous other accounts, stretching back centuries before the Christian era. In the Old Testament we had Enoch and Elijah being taken *up* into heaven. In older Egyptian scriptures, we are told of preparations to allow pharoahs to *ascend* to certain specific regions of heaven. In the Egyptian 'Book of the Dead' the deceased, having successfully navigated through the dangers and trials of the netherworld, flies to heaven as a spiritual being. In an even earlier Mesopotamian text, 'The Legend of Etana,' there is a story of a human being ascending into heaven. And Mohamad, the messenger of Islam, was recorded as having ascended into various regions in heaven.

Different Levels of Heaven

A common feature about heavens in many cultures is that there were many 'levels.' The closest thing that the New Testament says to there being different levels of heaven is where (Saint) Paul writes:

I know a man in Christ who fourteen years ago, whether in the [physical] body or out of the [physical] body I do not know, God knows—such a man was caught up to the third heaven.⁸

Some interpret this as indicating that there are three different levels of heaven. The idea of 'the third heaven' raises the concept that there are different levels of heaven, corresponding to a person's level of virtue.

During biblical times, the Jews did not have the scientific knowledge that we now take for granted. Instead they attempted to conceptualize the world in terms of their intuitive knowledge, and usually described it visually. So, when they conceived of the universe, they constructed a multi-layered world, sort of like a large onion composed of various layers with the physical world in which human beings lived at the centre. These layers were called 'firmament' or 'shamayim' (heavens or sky) in the Old Testament or 'heavens' in the New Testament era. There are many other non-Biblical books and writings that also describe these layers. This model was still in use in the Middle Ages (1400s AD) when Dante wrote of the various levels of heaven and hell.

Most often this model contained seven heavens but in a few writings there were only three layers. The Quran and Hadeeth clarify there are seven levels of Heaven.⁹ In other texts, sometimes, even ten levels were identified. Although the number of layers was different in the various models, it is interesting that practically all the major religions in the world speak of different levels of heavens.

In the Buddhist cosmology, six levels of gods live on or above the central mountain, Mount Meru. 'Bodhisattvas' or pre-Buddhas live in 'Tusita Heaven' before they *descend* to the human realm as Buddhas. Buddhists believe that the historical Buddha (Siddhartha Gautama), lived there before being born in India, and now Maitreya, 'the future Buddha,' is living there; and is awaiting the time when he will enter the human realm.

The historical Jesus of Nazareth, too, was thought to have descended from heaven. John's Gospel records, 'No one has ascended into heaven but he who descended from heaven, the Son of man.'¹⁰

'Astronomical' vs. Metaphysical Heavens

The Divine Comedy, a poem which described an imaginary journey through hell, purgatory and paradise, was written by Dante Alighieri in the 1300s. In Canto 1 of the poem, after an initial ascension, Dante is guided through nine spheres (or levels) of heaven. These different levels of heaven are concentric and spherical, similar to Aristotelian and Ptolemaic cosmology. They are, however, not purely astronomical.

Aristotle's Earth-centreed cosmological work 'On the Heavens' is the most influential treatise of its kind in the history of humanity. It was accepted for more that 18 centuries from its inception (around 350 BC) until the Sun-centred model of Copernicus replaced it in the early 1500s. Aristotle proposed that the heavens were literally composed of 55 concentric, crystalline spheres to which the celestial objects were attached and which rotated at different velocities (but the angular velocity was constant for a given sphere), with the Earth at the centre.

Ptolemy, too, in the second century AD, had devised an elaborate model of the heavens composed of large and small circles, with the Earth in the centre. In the 1500s, Copernicus suggested a system where the Sun was at the centre.

These theories of concentric spherical rings or shells of heavens, which included celestial objects in the physical world, must be distinguished from the purely super-physical spheres described in religion—which have a similar structure.

Hells, too, had many different levels. It is interesting to note that the Christian Bible has much more to say about hell than it has to say about heaven!

CHAPTER 2

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Where The Hell Am I?

Earth-Based Hells In Religion and History

The Ultimate Sauna

In the Bible, hell has been associated with fire: 'everlasting fire,' ¹ 'unquenchable fire,' ² and 'flame' ³. It is a place of torment with 'fire and brimstone' and a 'lake of fire and brimstone' where the wicked are 'tormented day and night.'⁴ (Brimstone refers to sulfur, which is frequently found in volcanic areas.) The descriptions fit well with the conditions in volcanic areas and the hot interior of the Earth.

Screams from Hell?

An article in a Finnish newspaper, sometime in the late (nineteen) eighties, described a geological group who drilled a hole about 14.4 kilometres deep in the crust of the Earth who claimed that they heard human screams in searing heat. 'The information we are gathering is so surprising, that we are sincerely afraid of what we might find down there,' exclaimed a surprised Dr Azzacov, the manager of the project in remote Siberia. 'We tried to listen to the Earth's movements at certain intervals with supersensitive microphones, which were let down through the hole. It was sometimes a weak, but high pitched sound which we thought to be coming from our

own equipment,' explained Azzacov. 'But after some adjustments we comprehended that indeed the sound came from the Earth's interior. We could hardly believe our own ears. We heard a human voice, screaming in pain. Even though one voice was discernible, we could hear thousands, perhaps millions, in the background, of suffering souls screaming.'

Jacques Costeau, the famous underwater explorer, quit deep sea diving sometime before he died. Apparently, he stopped because he had heard the sounds of people screaming in one of the underwater caves he was exploring. There was also another time, when one of his men, who was in a diving bell in the deepest trench at the Bermuda Triangle, who also had a similar experience. After being revived from his shock, he told others of his frightening experience of hearing 'screams of people in pain.'

Levels of Hell—Don't Press That Button!

Dante

In Dante's time, it was believed that hell existed underneath Jerusalem. His cosmography and infernal geography clearly shows different levels of hell. In his famous poem the 'Divine Comedy,' Dante divided hell into nine concentric circles (or shells) of increasing nastiness. Each concentric shell represented further and further evil, culminating in a *frozen* lake in the centre of the Earth. The lower parts of hell are contained within the walls of the city of Dis, which is itself surrounded by the river Styx.

It is interesting, in this connection, to note that the inner *solid* core of the Earth is surrounded by a *molten* outer core which circulates around it. The inner core, although probably at 5,000 degrees Centigrade or more, is under such high pressure that it is solid. It is actually *freezing* at a rate of about a thousand tons per second. It is this *freezing* process which keeps the outer core in motion—generating the Earth's magnetic field.

Buddhist Worldview

Buddhist cosmography (based on Vedic cosmology) also shows a variety of hells at different levels. There are eight hot hells and eight cold hells which lie thousands of kilometres beneath the surface of the 'southern continent.' The hells are stacked one on top of the other, with the worst hell at the bottom. In Buddhism one is not thrown into hell or punished by some deity. Rather, the hells are the fruition of one's misdeeds and the externalization of one's own character.

While Siddhartha Gautama (the historical Buddha) rejected the divine authority of the Vedas and many of the key assumptions of Brahmanism, he also affirmed on the basis of his own direct knowledge the existence of many of the elements of the Vedic world view, including the existence of many hells, heavens, and various supernatural beings like gods, demons and ghosts.

Siddhartha not only claimed to have seen these realms and beings for himself with his 'divine sight,' but he also claimed to have observed how sentient beings cycle through these many diverse forms of existence in the process of transmigration.

Journeys to the Interior of the Earth?

In the Epic of Gilgamesh, an ancient Babylonian poem dating back to around 2000 BC, there is a reference to Gilgamesh visiting an ancestor inside the Earth. The Greeks believed that the dead descended to Hades, an enormous cavern deep below the ocean, utterly lacking in sunlight. In Greek mythology, the fabulous musician Orpheus attempted to rescue his deceased wife Eurydice from Hades. The underworld also figures prominently in Egyptian mythology. The Pharaohs were reputed to be in contact with the gods under the Earth, and visited them regularly via a system of secret tunnels in the pyramids.

In Mesopotamia, disembodied souls were believed to descend to a subterranean realm, thought to be the absolute lowest level of the Earth. The ancient Hebrews believed that the dead descended deep below ground, to a netherworld known as 'She'ol.' In China, the dead were believed to descend to a murky subterranean land, known as 'Huang Ch'uan.' Furthermore, certain Buddhists maintain that millions of people are living in an underground paradisical megalopolis called Agharta, which is ruled by 'the King of the World.'

The Catholic version of hell as a place was confirmed at Fatima in 1917 during the church-approved apparition of 'Our Lady of Fatima' (believed to be Mary, the mother of Jesus) to three young shepherd children. Lucia Santos, the eldest of three children, reported in 1941 that hell was revealed to them as follows, 'Our Lady showed us a great sea of fire which seemed to be *under the Earth.*'

Edgar Allan Poe describes a terrifying confrontation with messengers from the interior of the world in his 'Narrative of Arthur Gordon Pym,' written in 1833. But the most popular story about subterranean adventure is Jules Verne's 1864 masterpiece, 'Journey to the Centre of the Earth,' which charts the descent of a professor, his nephew and a guide into the depths of our planet's interior through the crater of Mount Sneffels, an extinct volcano in Iceland. Is such a journey possible? The idea that volcanoes (whose lava orginates from deep within the Earth) could be gateways to Hell was present in the minds of the ancient Romans, and later of Icelanders and other European peoples. It doesn't seem likely, based on *current* theories of Earth's geological composition that hell is below the crust of the Earth. Geologists and seismologists have constructed quite a detailed picture of the Earth's interior by probing its core with seismic shockwaves from earthquakes and nuclear tests. The geological facts (relative to the physical Earth) rule out any notions of undiscovered places in Earth's interior where conscious physical beings could inhabit.

Towards a Scientific Understanding of Heavens and Hells

Many of the descriptions of heavens and hells in the historical literature do not make a distinction between the physical Earth and parallel universes. Hence, they sometimes combined objects in the physical universe with parallel universes. The fact that they were combined, to some extent, betrays the notion that both physical and super-physical spheres interpenetrate each other.

This book will show, from a scientific perspective, using the latest theories in plasma physics and Superstrings theory that heavens and hells do interpenetrate our visible world. These parallel locations are seen as distinct from the visible Earth, although they share the same space and gravitational field as the physical Earth.

Heavens and hells are simply general terms which we give to specific places which are pleasant or unpleasant. In fact, even on the visible Earth, certain places with extreme temperatures, such as in the equatorial and polar regions, may be considered 'hot' and 'cold' hells. The milder and temperate regions may be considered heavens.

By simply using the relevant scientific theories, models of interpenetrating spheres emerge, almost identical to the intuitive descriptions in religious literature. In order to begin we have to first look at what scientists call 'dark matter.'

CHAPTER 3

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Can Someone Turn-On the Lights?

It's pretty amazing that after all this time; astronomers cannot say what this *dark matter* is made of. It's one of the greatest mysteries in the history of science...Imagine living in a house and having no clue as to what it is made of. [Emphasis addded.]

Tom Siegfried 1

Gravitational Fields Generated by Invisible Objects?

A group of isolated galaxies—UGC 10214, has a conspicuous bridge of material extending into space towards apparently nothing! Stars at the edge of galaxies were moving at much higher velocities than what the calculations allowed.

In our Solar System, movement of the planets occurs in close conformity with Newton's gravitational laws, according to which the rates of movement around the Sun are slower for planets further out. When this behavior is extrapolated to distant spiral galaxies, it is natural to assume that these, also, would show slower rates of movement in the spiral arms further away from the centres of the galaxies. It was therefore a surprise when measurements by the astronomer Jan Oort in the late 1920s indicated that orbital velocities of stars in the Milky Way do not decrease with increasing distance from our galactic centre. In 1933 Fritz Zwicky noted the same anomaly in galaxies forming galactic clusters, and suggested that it was due to unidentified 'dark matter' which 'balanced out' the masses at the centres of galaxies.

In 1970 Vera Rubin and W K Ford found the same behavior in the neighbouring Andromeda Nebula, and later over sixty other spiral galaxies! This indicates that gravity from visible galaxies extended much further out than what was suggested by the edges of the visible galaxies. But what was generating this gravity?

At the edge of our Solar System, far beyond Pluto, when we would expect gravity from the visible Sun to peter out, two probes sent out by NASA in 1972 and 1973 experienced strong gravitational forces. What was generating this gravity? According to Marcus Chown this may be due to the presence of 'mirror matter' (one variety of dark or invisible matter) within the Solar System.² Richard Morris observes, 'The universe contains a mysterious kind of matter that telescopes cannot detect, but which nevertheless makes its presence known by exerting a gravitational pull on objects that astronomers can observe.'³

Astronomers have also recently calculated that the mass so far observed in the visible universe fell far short of theoretical predictions—based on the established 'inflationary theory.' Despite better and better measurements, the results from various sources just kept showing that the observed density of matter and energy in the visible universe was simply too low. Only 1% of the predicted mass could be seen or measured!

A deep optical image, from the telescope at Kitt Peak, showed the cluster of galaxies-Abell 2218, along with many faint blue galaxies in the distant background which had been distorted into arcs in the images constructed. According to astronomers, these distortions were the result of 'gravitational lensing' caused by a high density of dark matter near the centre of the cluster. Gravity bends light in a similar way that a lens does-in a phenomenon that astronomers call 'gravitational lensing.' In this case, while gravitational lensing was evident, the matter which caused this lensing could not be found! The astronomers were forced to conclude that invisible galaxies were causing the lensing phenomenon. A team of European astronomers noticed similar distortions in light from distant bright galaxies they were imaging. But there was no visible object that could account for the distortions. 'It was a true mass detection but difficult to confirm,' said Peter Schneider of the University of Bonn, a member of the team. In other words, mass was detected but there was nothing there that they could see or image.

All this evidence made many scientists sit up and conclude, much

to their disbelief, that 99% of the matter and energy in the universe was invisible! Equally ironic is that although this fact was known to scientists for some decades, 99% of human beings on this planet currently are unaware of this historical monumental finding and have not reflected on the implications!

What's Lurking in the Dark?

This invisible matter was dubbed 'dark matter' by scientists, not because it is dark in color (or because there was something sinister or evil about it), but because it does not radiate any light within the electromagnetic spectrum known to Science. It could just as well be called 'invisible matter.' Astronomers are still not sure what this dark matter is composed of. They have labored on several theories but none of this matter and energy predicted by these theories have actually been observed or measured by current scientific instruments.

There is almost a universal consensus now, however, that massive amounts of dark matter pervade the universe. Powerful scientific theories imply that the greater part of this matter is composed of 'exotic' particles not yet seen in the laboratory or even objects that can be described as 'particles.' Scientists today estimate that dark matter and energy comprise 90% of the Milky Way ('our' galaxy) and up to 99% of the universe as a whole (estimates, however vary between these percentages). Bruce Margon, chairman of the astronomy department at the University of Washington, told the *New York Times*, 'It's a fairly embarrassing situation to admit that we can't find 90 percent of the universe!'

According to Donald Goldsmith, dark matter remains invisible over the entire electromagnetic spectrum known currently to Science, from the longest wave-length radio waves to the shortest wave-length gamma rays. Though astronomers have opened one spectral window after another with new satellite observatories sent above the absorbing effects of our atmosphere, most of the dark matter consists of matter that cannot be directly detected.⁴

Dark matter, according to mainstream Science, is outside the known electromagnetic spectrum. This observation has been made and communicated numerous times by metaphysicists—when describing what they call 'subtle matter and energy.' Some scientists now say it is 'non-luminous'—which simply means the same thing (i.e. it does not emit electromagnetic waves within the spectrum know to Science currently). Nevertheless, it seems that what appears as non-luminous to Science has been described as a 'luminous ocean' by various mystics and metaphysicists—long before Science stumbled onto dark matter.

Could part of the problem in identifying dark matter be that only part of the spectrum of matter is observable by our senses and sensors? As there are sound waves above and below the frequencies we can hear, and light waves we can't see with our eyes, could it be that matter has properties that make it invisible to us at certain 'frequencies'? This may explain some of the anomalies in the layering of dark matter.

Phil Paulsen, Racine, Wisconsin

Conclusion

The evidence, as a whole, appears to support the existence of invisible matter and energy. The majority of physicists are now inclined to take the view that there are vast amounts of matter that we cannot see or measure (with any scientific instrument that we currently have). Nevertheless, they knew it was there because of the effects on what they could see—unusually fast moving stars, distortions in the light from distant galaxies and matter being drawn towards apparently nothing. Invisible matter seemed to surround billions of galaxies in the universe. There were even stars that appeared to be rotating around invisible companions. David Peat explains that while the dark matter star remains invisible, its attraction will affect the orbit of the ordinarily visible star. The two will form a binary system in which a star in our universe is rotating around an invisible companion.⁵ Stephen Hawking says:

Our galaxy and other galaxies must contain a large amount of 'dark matter' that we cannot see directly, but which we know must be there because of the influence of its gravitational attraction on the orbits of stars in the galaxies. Moreover, most galaxies are found in clusters, and we can similarly infer the presence of yet more dark matter in between the galaxies in these clusters by its effect on the motion of galaxies.⁶

In 1932 Albert Einstein and William de Sitter published a joint paper in which they proposed the Einstein-de Sitter model of the universe. They argued in this paper that there might be large amounts of matter which does not emit light and has not been detected. In 1917 de Sitter also predicted 'redshifts' and was the first to develop a formal cosmological model of an expanding universe—both are now scientific facts. He also predicted that the expansion would last forever. Recent astrophysical evidence confirms this. In 2000 Robert Minchin and his team at Cardiff University in Wales noticed two apparently isolated hydrogen clouds in a radio telescope survey of the Virgo Cluster of galaxies. Follow-up observations with visible-light telescopes showed that one of these clouds was associated with a faintly glowing galaxy. However, the second cloud had no partner galaxy. According to Minchin, its motion suggests that it's a small part of a massive object weighing as much as a galaxy of 100 billion suns. And yet this object remains invisible. If Minchin and his team are right, they would have found the first member of a population of galaxies that theorists have proposed but observers had never seen.

Dark matter within the Galaxy

For decades astronomers have wondered about the origin of certain fastmoving clouds of atomic hydrogen in the vicinity of the Milky Way. Some clouds appeared to be plunging into the galaxy at high speeds and were not rotating with the galaxy; while others seemed to be moving away from the Milky Way. A synthesis of new radio-telescope measurements, plus re-evaluated data from COBE and the Hubble Space Telescope, indicates that these clouds may be raw material left over from the formation of the 'Local Group' of galaxies—which include the Andromeda galaxy and our own Milky Way. Leo Blitz of the University of California and David Spergel of Princeton University say that these high velocity clouds will continue to feed the Milky Way (providing fuel for future star formation) and might even harbour dark matter—a hypothesis which would account for the continued stability of the clouds and their unexplained large internal velocities.

D Lin, a University of California astronomer, has shown that the Large Magellanic Cloud that orbits around our own galaxy is being torn apart by the powerful gravitational pull of a dense cloud of dark matter surrounding the Milky Way. This dismemberment of the Large Magellanic Cloud cannot be explained by the gravitational forces exerted by the stars in our galaxy that we can see. Lin calculates that our galaxy's halo of dark matter is equivalent to 600 to 800 billion solar masses, compared to the only 100 billion solar masses of visible matter.

Dark matter within the Solar System

There is dark matter at galactic scales, but can this type of matter be found in our backyard—our Solar System? Recently it has been found that the Solar System, itself, is sitting in an interstellar cloud. The existence of the cloud and its geometry can be deduced from its effect on the spectra of nearby stars and cosmic rays. Priscilla Frisch of the University of Chicago calculates that our Solar System first encountered the cloud (moving at right angles to it) between 2,000 and 8,000 years ago. This cloud and other clouds that passed through the Solar System in the past would give ample opportunities for dark matter to influence the development of life and consciousness on Earth.

Dark Matter within the Sun

Charles Leadbeater, a leading metaphysicist of the twentieth century, and Barbara Brennan, a research scientist and astrophysicist who worked for NASA and now a subtle energy healer, say that there are high energy charged globules or bundles of vibrating energy that are abundant and energetic on sunny days. On cloudy days, though, they move sluggishly and diminish in numbers.⁷ Brennan has also observed them being absorbed by plant life.⁸ These energetic globules are considered one type of 'qi' by the Chinese or 'prana' by the Indians—both examples of what metaphysicists call 'subtle matter and energy.'

If more of these globules are received on Earth during sunny days than on cloudy days does this suggest that they emanate from our Sun? According to researchers from the University of Oxford (as reported in the 'New Scientist' journal), the Sun is harbouring a vast reservoir of dark matter. Astrophysicists Ilidio Lopes and Joe Silk reasoned that passing dark matter particles would be captured by the gravity of heavy bodies like the Sun. Not surprisingly, the source of these globules (qi and prana-or 'vital force') observed by metaphysicists is also said to be the Sun. H P Blavatsky, a leading metaphysicist of the nineteenth century, says, 'A fundamental dogma of occult science is that the Sun is the storehouse of Vital Force, and that from the Sun issue those life-currents which thrill through space, as through the organisms of every living thing on Earth—the real Sun being hidden behind the visible Sun and generating the vital fluid which circulates throughout our (Solar) System in a ten year cycle.'9 It is significant that Blavatsky mentions the real Sun being hidden behind the visible Sun. It is an obvious reference to a Sun which is ordinarily invisible to most of us and our scientific instruments but visible to some of us—a dark matter Sun!

In addition to heat and light, the Sun constantly emits low density plasma of charged electrons and protons called the 'solar wind,' which blasts out from the Sun in all directions at very high speeds to fill the entire Solar System and beyond. The solar wind and the much higher energy particles ejected by solar flares can have dramatic effects on the Earth ranging from power line surges and radio interference to the beautiful and mesmerizing aurora borealis—or 'Northern Lights.' The composition of this solar wind has been largely analyzed by Science, up to now, to consist of only ordinary matter in the form of plasma.

If there is a large dark matter reservoir in the Sun, as certain scientists are convinced, it is a logical next step to expect dark matter particles captured by the Sun from various sources to be also blown out of the Sun in its solar wind—just like ordinary matter particles—causing what Blavatsky (above) described as 'life currents which thrill though space.' There is much evidence in the metaphysical literature that the solar wind also carries with it dark matter particles, the charged energetic globules described by Leadbeater, Brennan, Pearsall ¹⁰ and others, in the form of a plasma wind. Blavatsky has classified them as high energy 'physical-etheric' particles.

It states in the metaphysical literature (and both in Taoist and Hindu literature) that qi emanates from the Sun. In Chinese culture (under the study of 'feng-shui'), it is 'auspicious' for the door of a Chinese home to face the East (in the direction of the sunrise). Qigong practitioners face the Sun and other stars during their practice. Both the Sun and stars have significant and pervasive magnetic fields and plasma winds that blow out both ordinary and dark matter particles from their hot interiors. Standing in front of the Sun would be like standing in front of an electric fan blowing out qi or prana. On cloudy days, though, it is possible that the Earth's etheric double changes polarity so that it repels the qi particles. Qi is described as 'subtle' energy by metaphysicists because it interacts weakly with ordinary matter.

Dark Matter within the Earth

Dark Matter Clouds Passing through Earth

Jürg Diemand, a physicist at the University of California in Santa Cruz, US, and colleagues say that new computations suggest that small clouds of dark matter, which could be detected by future space missions, pass through Earth on a regular basis. He says that perhaps a million billion of them drift around the large dark matter halo that is thought to enclose our galaxy. These clouds float through Earth every 10,000 years in an encounter lasting about 50 years, according to Diemand. However, they do not affect the (physical) Earth to any appreciable effect. Their relatively low densities mean they could only nudge our planet out of its normal orbit by less than a millionth of a metre per second. A NASA detector called EGRET (Energetic Gamma Ray Experiment Telescope) turned up about 200 gamma-ray sources during the 1990s whose origin could not be identified, and Diemand thinks some of these may arise in small dark matter clouds.¹¹

Dark matter is pervasive throughout the universe. The inhabitants of Earth and the Earth itself are being constantly bombarded by dark matter particles as the Earth and the Solar System sweeps around the Milky Way well beyond supersonic speeds. Gordon Kane says that our Sun is moving around in the galaxy, and the Earth is moving around the Sun. Consequently, all of us, and any detector we build in the lab, is moving through a cloud of the lightest dark matter particles that are more or less at rest in the universe. There might be one or a few in every region the size of a baseball.¹²

... the Earth orbits the Sun, which itself is moving through the dark matter halo of our galaxy.

PhysicsWeb.org

Dark Matter Rain on Earth

Professor Rubia of the Italian National Agency for New Technologies, Energy and Environment (ENEA), speaking at the 2004 Institute of Physics Nuclear Physics Conference in Edinburgh, UK, says that a stream of dark matter might constantly be flowing through the Earth and these could be measurable with underground detectors. Astrophysicist Heidi Newberg at Rensselaer Polytechnic Institute and her colleagues suggest that dark matter may be raining down on Earth from the dwarf galaxy 'Sagittarius.'

The dwarf galaxy is being torn apart and consumed by the much larger gravitational pull of our galaxy, the Milky Way. It's entrails of stars and dust which forms a tail, like a long piece of ribbon, is entangled around and within our galaxy. This tail extends from Sagittarius' centre and then arcs across and below the plane of the Milky Way. The leading part of the tail extends northward above our galaxy where it then turns and appears to be showering shredded galaxy debris down directly on our Solar System. 'As the Milky Way consumes Sagittarius, it not only rips the stars from the smaller galaxy, but also tears away some of the dark matter particles from that galaxy. We may be able to directly observe that in the form of a dark matter highway streaming in one direction through the Earth,' says Newberg, who has recently identified stars near the Sun that could be part of this tail.

As Earth orbits around the centre of the galaxy, the planet flies through this cloud of dark matter. As that happens, millions of weakly interacting (and therefore difficult to detect) dark matter particles would be raining down on Earth and passing through each of our bodies every second, according to the scientists.¹³

Dark Seasons on Earth

According to the research scientists, there would be an annual modulation or seasonal variation in the amount of dark matter particles raining through the Earth because of the motion of the Earth relative to the Solar System. Our galaxy is embedded in a much larger cloud of dark matter. The Solar System passes through this massive cloud of dark matter particles as it revolves around the galactic centre. The seasonal variation arises because as the Solar System is moving through the cloud, the Earth is moving around the Sun. In December, the Earth is moving against the direction of the motion of the Solar System as the latter moves around the galactic centre. In June, the Earth moves in the same direction as the Solar System as the latter moves around the galactic centre. This dark matter rain would be experienced seasonally, just like the terrestrial monsoon rains that sweep central Asia every year. In the same way that a cyclist gets wetter when riding into the wind in a rain, than when riding with the wind, any dark matter detector would record more dark matter particles in and around June than around December. The voluminous records of DAMA, a dark matter detector, confirm this exactly.¹⁴

It is curious that the Chinese celebrate an ancient festival called the 'Hungry Ghosts' month around August each year. They believe that souls are freed in this month to roam the Earth. This belief probably arose from observations that there were more manifestations or sightings of ghosts around this month. The tilt of the Earth's axis could also influence the peak season for the 'dark matter rain' relative to each country. Like the more terrestrial monsoon rains that come around the region each year, the annual modulation or seasonal variations in the volume of dark matter passing through the Earth every year therefore suggests that the ancient Chinese festival may have a deeper scientific significance.

What exactly is dark matter and energy?

Since dark matter and energy fills 99% of the universe, it would be simplistic to assume that they would be composed of only one type of particle. There is probably a great diversity of particles and energies included in dark matter and energy—including exotic particles and energies which escape the imagination of both physicists and metaphysicists at present.

There are recent theories in physics which shed some light on the composition of dark matter and energy. The common feature about these theories is that they invoke 'standard' or 'super' mirror-symmetries to extend the known particles and forces, under the 'Standard Model' used by physicists, to 'super' particles. Standard mirror-symmetries are defined in this book as symmetries which arise from the use of a 'standard mirror' which reflects a particular attribute, without a change in the energy level. Super mirror-symmetries arise from the use of a 'super mirror' to reflect a particular attribute at a higher energy level. It appears that dark matter is composed of massive super particles.

CHAPTER 4

*

Dark Matter is Super!

Shortcomings of the Standard Model

Physicists have been using the very successful 'Standard Model' for several decades to classify the plethora of elementary particles discovered in the twentieth century. Using this Standard Model, physicists were able to speculate on the existence of particles and subsequently discover them in particle accelerators. This was done by observing the 'missing spaces' in the model, just as the 'periodic table' was used in an earlier century to identify and discover elements by observing the 'missing spaces' where certain elements should be located based on mathematical symmetries.

The Standard Model, however, does not explain why particles should have their masses or how they got their relevant masses. The model also does not include the graviton. Since gravitational fields are pervasive throughout the universe and the graviton is the particle mediating the gravitational force, this is a significant shortcoming of the model. The limitations of the Standard Model got physicists started on more comprehensive models—the most popular being the models provided by 'Superstring theories.'

At low energies, Superstring theories were able to derive all the particles under the Standard Model simply by observing mathematical symmetries! They were also able to derive the graviton. Superstring theories, therefore, provided a more comprehensive and elegant model. Superstring theories also predicted a new set of particles. Standard matter particles in the Standard Model were reflected as a new set of super force particles. Conversely, standard force particles were reflected as a new set of super matter particles. Current scientific instruments, however, have not yet detected any of these new sets of super particles at low-energies—although the presence of large amounts of dark matter suggests their presence. Why have they not been observed in the laboratory? This is where the break-through came—a change of mindset in Science that metaphysicists were hoping for—a shift in paradigms! Physicists concluded that they cannot be seen or measured with our current scientific instruments because they must be highly massive particles—exactly the conclusion reached by metaphysicists decades and even centuries ago.

David Peat, a renowned scientist-philosopher of the twentieth century, who worked with leading physicists including David Bohm, says that we can only 'see' elementary particles and phenomena which come within our range. If there are indeed more massive particles around, then we simply cannot see them.¹ Tom Siegfried says that a mirror universe could exist in the same space as our universe if the 'mirror' is sufficiently distorted, sort of like in a carnival funhouse. He suggests that 'mirror particles' are a little bit heavier than ordinary 'standard' particles. A mirror electron might be 10 or 100 times heavier than the standard electron. Mirror protons and neutrons would also be more massive.²

Super Particles and Interpenetrating Universes in Mainstream Physics

The new particles are more massive (or more energetic—as mass is equivalent to energy according to Einstein's theories) than standard particles and have been reflected using not standard mirrors but by 'super mirrors.' Hence, they are called SUPER particles by physicists. The low energy particle accelerator experiments that scientists have been conducting in the past can only detect low energy and less massive particles. Higher energy experiments are required to detect these more massive (or more energetic) particles. Superstring theories postulate that every standard particle we observe has a massive (or more energetic) 'shadow' super particle.

Every fundamental matter particle should have a massive 'shadow' force carrier particle, and every force carrier should have a massive 'shadow' matter particle.

Particle Data Group of Lawrence Berkeley National Laboratory³ Richard Morris says that Superstring theories predict the existence of 'shadow matter,' which would interact with ordinary matter through the gravitational force. This implies that it could be neither seen nor felt.⁴

If someone tried to grasp a chunk of shadow matter, her hands would pass right through it. It has been said that one would walk through a shadow matter mountain or stand at the bottom of a shadow matter ocean and never know it. Shadow matter particles could interact with one another according to physical laws similar to those of our world. It is possible that there could be shadow matter planets, and perhaps even shadow matter organisms.

Richard Morris, Physicist 5

According to one Superstring theory, the (E8 x E8) Superstring theory, shadow universes interpenetrate our universe. They have their own forces and particles—even their own intelligent entities. John Gribbin says that since only one of the E8 components is needed to describe everything in our universe that leaves a complete duplicate set of possibilities. The symmetry between the two halves of the group broke at the birth of the universe, when gravity split apart from the other forces of nature. The result would be the development of two universes, interpenetrating one another but interacting only through gravity—our world and a so-called 'shadow' universe.⁶

There would be shadow photons, shadow atoms, perhaps coexisting in the same spacetime that we inhabit, but forever invisible. A shadow planet could pass right through the Earth and never affect us, except through its gravitational pull.

John Gribbin, Physicist 7

David Peat says that each E8 group describes its own universe, particles and forces. Each group is complete, being able to fully account for the known elementary particles and forces of nature. Since the forces (except mainly for the gravitational force) are confined within each group, the elementary particles in one group are invisible when viewed from the other group. Both (E8) universes coexist within a single spacetime that is curved by their combined mass and energy.

It is indeed theoretically possible for a shadow universe to exist in parallel to our own. While we would feel its gravitational effects, this shadow universe would be otherwise invisible. Photons [light] from the shadow group would have no interaction with the matter in our universe.

David Peat, Physicist 8

Metaphysicists believe that there is not only one other 'E8' universe or one other 'shadow' universe, but a number of interpenetrating super universes.

Super Particles and Interpenetrating Universes in Metaphysical Literature

The recent findings in Science echoes what metaphysicists have been saying over the centuries. Theories of super particles and interpenetrating universes may be new to mainstream physics but there are detailed references to such particles and universes in metaphysical literature, as the following references will show.

In the 1970s I K Taimni, a metaphysicist, discussed at length of the existence of more massive particles and interpenetrating super universes. He pointed out decades ago (based on the metaphysical literature) that on each plane of existence the band of wavelengths (i.e. the electromagnetic spectrum) operating on the plane corresponds to the range of sizes of particles. Theoretically 'an infinite number of systems with vastly varying sizes of particles and wavelengths can be accommodated in the Cosmos,' according to him.⁹

The differences between the *sizes of particles and wavelengths* can be enormous and so one system can remain within another system without any common ground between the two, and therefore without the inhabitants of one system knowing of the existence of the other inhabitants. [Emphasis added.]

I K Taimni, 1974, Metaphysicist 10

Taimni said in the 1970s that there were massive particles belonging to another universe, ordinarily invisible to us—exactly what scientists are saying now. He explained that the systems or universes will not interfere or come in contact with each other on the 'material plane' and their inhabitants. These inhabitants will not be able to cognise the phenomena or inhabitants of the other systems as their sense-organs are organized for particular ranges of vibrations (i.e. frequencies).

Around 1910 Leadbeater, another metaphysicist, said that 'a man living in the physical world sees, hears and feels by vibrations connected with the physical matter around him. However, he is surrounded by (super-physical) 'astral' and 'mental' worlds, which are interpenetrating his own denser world, which he is normally unconscious of, because his senses cannot respond to the oscillations of their matter¹¹; just as our physical eyes cannot see ultra-violet light although scientific instruments can detect and measure it.

In 1896 Annie Besant explained that just as a blind man cannot see physical objects so it is that most human beings who are currently 'astrallyblind' cannot see (super-physical) astral objects at all. According to her, at the present stage of evolution, many people could develop astral senses and are developing them to some extent. But they must *learn* how to see astral objects. Various scientific experiments show that the brain of a child or a blind person, who undergoes surgery to restore vision, has to *learn* how to see even physical objects. The vision of physical objects does not come about immediately. According to Besant, mistakes can be expected. After a time, and after mistakes are corrected, the vision of (higher frequency) astral objects can become more accurate.

She warns that the development should not be forced as the intrusion of astral sights and sounds can be disturbing and even alarming^{12—}not to mention the ridicule that astrally-sensitive people may be subject to by their friends and family (or even the 'scientific' community) who cannot see or hear the same things—just as Galileo was ridiculed and persecuted by the Church of his time when he saw things in his telescope which the Church could not see or believe in because they refused to use the available apparatus—being afraid of the 'metaphysical.' Galileo's metaphysics and so-called devil-inspired theories are now accepted in today's mainstream physics and astrophysics.

Even the idea of a 'shadow body' based on super mirror-symmetries was well-known in metaphysics. In 1896 Besant explained:

The [ordinarily invisible] etheric double is the exact duplicate of the visible body—its shadow, as it were, particle for particle.

Annie Besant, 1896, Metaphysicist 13

Super (Interpenetrating) Universes and Spheres

Besant, who had presumably first-hand knowledge of other universes, provided her findings on interpenetrating universes in 1893! She described the existence of regions in the universe, other than the physical, peopled with intelligent beings. She explains that if these entities did not have organs of sense like our own, if their senses responded to vibrations different from those which affect ours, 'They and we might walk side by side, pass each other, meet each other, pass through each other, and yet be never the wiser as to each other's existence—an unconscious co-existence of intelligent beings,'—echoing typical descriptions of shadow universes given by scientists today. According to her, the existence of such regions is postulated by the 'Esoteric Philosophy.'

She says there is a region which is peopled by intelligent and semiintelligent entities just as our own universe; it is crowded, like our world, with many types and forms of living things, as diverse from each other as a blade of grass is different from a tiger, a tiger from a man. This region is also inhabited by disembodied human beings. 'It interpenetrates our own world and is interpenetrated by it, but, as the states of matter (particles and energy levels) of the two worlds differ, they co-exist without the knowledge of the intelligent beings in either.'¹⁴ No doubt, interpenetrating universes must have been discussed at some length by various metaphysicists of that time.

Sir William Crookes posted an article in the 'Fortnightly Review' in 1892, stating that it is not improbable that other sentient beings have organs of sense which do not respond to some or any of the 'rays' to which our eyes are sensitive, but are able to appreciate other vibrations to which we are blind. He added that such beings would be living in a different world to our own.

Metaphysicists would interpret the duplicate E8 universe (predicted by mainstream physicists) as the higher energy etheric double of our universe. When symmetry broke at the Big Bang, our universe moved 'down' (relatively-speaking) to a lower-energy level. Its etheric double, composed of super etheric particles, moved 'up' (relatively-speaking) to form an interpenetrating physical-etheric universe.

Super Particles

Super particles have been observed by many experimental metaphysicists. In Hindu metaphysics, we find references to not only 'anu' (the standard particles) but also 'param-anu' (beyond the anu or super particles). Early in the twentieth century many references to super particles have been made in the writings of Leadbeater and Besant, and in the compilations of Arthur Powell. Leadbeater, perhaps the person who contributed most to twentieth century experimental metaphysics and a prolific writer, talks a number of times in various books and papers about the existence of super particles and super interpenetrating universes.

Every particle in the physical brain has its astral counterpart, and this in turn has its mental counterpart.

Charles Leadbeater, 1913, Metaphysicist ¹⁵

Leadbeater explains that if the whole of the physical brain is spread out so as to be one particle thick and that the corresponding astral and mental matter is also laid out in layers in a similar manner, the astral a little above the physical, the mental a little above the astral; we would then have three layers of differing particle densities, all corresponding one to the other, but not joined in any way except here and there with 'wires of communication.'¹⁶

References to the astral and mental counterpart particles are clear references to super particles. It is an accepted fact in the metaphysical literature that 'astral' particles are particles with much higher energies (and therefore higher equivalent mass in accordance with Einstein's most famous equation e=mc²) than standard particles. The metaphysical literature also indicates that there was awareness of the interactions and relationships between standard and super particles, and the invisibility of super particles (from our current frame of reference).

Leadbeater and Besant explain in their book 'Occult Chemistry' published in 1919 that a physical atom cannot be directly broken up into astral atoms. If the force within the 'ultimate physical atom' (or 'anu') is pressed back over the threshold of the astral plane (in other words, if the energy levels are increased beyond the physical plane) 'the atom disappears' they say. The same force (or more accurately the energy) working on a higher plane then expresses itself through astral atoms. ¹⁷ It is significant that Leadbeater and Besant reiterate that the higher energetic atoms 'may vanish from the plane' — making it part of invisible (dark) matter. The standard particle was referred to as the 'physical atom' and the super particle the 'astral atom.' If the mass (energy or frequency) of the standard particle was increased beyond a certain threshold, it would become invisible and 'disappear' i.e. it would become what scientists would call dark matter.

As the frequency of the particle was raised, it was pushed out of the known electromagnetic spectrum. The fact that super particles are invisible from our everyday frame of reference was reiterated many times by various metaphysicists. Leadbeater says that when a man picks up (let us say) a piece of stone, he can see only the physical particles of that stone, but that in no way affects the 'undoubted fact' that that stone at the same time possesses within it particles of matter of the astral, mental and other higher planes.¹⁸ Once again, we have clear references to the super-physical astral and mental particles which are often cited in metaphysical literature. According to Superstring theory, the super particle is a shadow partner or counterpart of the standard particle. Here, a metaphysicist says the same thing:

Every solid, liquid and gaseous particle of the physical body is surrounded with an etheric envelope: hence the Etheric Double, as its name implies, is a perfect duplicate of the dense form.

Annie Besant, 1896, Metaphysicist 19

'Physical-etheric' particles make up the first level of super particles according to metaphysicists. Almost all the super particles or shadow objects proposed by physicists currently can be found within this level.

Astral matter, being much finer than physical matter, interpenetrates it. Thus a being living in the astral world might be occupying the same space as a being living in the physical world; yet each would be entirely unconscious of the other, and would in no way impede the free movement of the other. The different realms of nature are not separated in space but exist about us here and now.

Each world has its inhabitants, whose senses are normally capable of responding to the undulations of their own world only.

Charles Leadbeater, 1912, Metaphysicist 20

This echoes the current descriptions given by mainstream physicists of shadow matter and interpenetrating universes under Superstring theories. In 1910 Leadbeater said that to examine a (physical) object a man is using a physical organ (the eye) which is capable of appreciating only certain 'rates of undulation' radiated by certain types of matter. If he should develop 'astral consciousness' he would then be employing an organ which is capable of responding only to the vibrations radiated by another and finer part of that object. If in developing the astral consciousness he had lost the physical—that is, if he had left his physical body—he would be able to see only the astral and not the physical.²¹What you see would therefore depend on which sensory system you are using—physical, astral etc.

Mainstream physics currently asserts that there is only one other level above the standard particles representing one new set of super particles (because these two levels explain most of the known particles and forces). There is a large amount of anecdotal evidence in the metaphysical literature that there are multiple levels of super particles. There is, therefore, reason to believe that there are more levels — which have not yet been identified by current scientific theories. These particles, in increasing frequency, are generally called the physical-etheric, astral and causal particles in metaphysics. The super particles identified by physicists currently only represent the 'physical-etheric' level of particles.

Considering that dark matter and energy make up 99% of all matter and energy in the universe (only 1% consisting of ordinarily visible standard particles) it is not difficult to imagine more than one level of super particles. On the contrary, it is difficult to imagine one level of standard particles making up 1% of the total matter and energy in the universe, and the other 34% made up of only one level of super particles. (The other 65% is made up of what scientists call 'dark energy.')

Shadow/Super Matter vs. Dark Matter

Physicists have dubbed the matter composed of super particles 'shadow matter.' This matter will be ordinarily invisible—just like dark matter. Shadow matter interacts with standard ordinary matter mainly through weak gravitational fields—also, much like dark matter. Shadow (or super) matter consists of matter concentrations similar to that produced by hot or cold dark matter.

Superstring theories were developed in the pursuit of 'Grand Unified Theories' and 'Theories of Everything.' The evidence for dark matter (from astrophysicists) came about independently of these theories. The close correlations between shadow and dark matter were noticed only later. To some extent, this validates Superstring theories. John Gribbin says that one reason that the idea (of a shadow universe) has been taken seriously is that there is astronomical and cosmological evidence that a lot of the universe exists in the form of dark matter, detectable gravitationally but not seen.²²

David Peat agrees. Current theories of the large scale structures of the universe, using the results of astronomical measurements, predict that the mass of the universe is much more than what is observed. When the mass in all the ordinarily visible and measurable stars and intergalactic dust is added together, it turns out to be too small. Either these theories are wrong or some additional mass must be hidden from us. The idea of a shadow universe is an ideal way of explaining missing mass, according to David Peat.²³

Mirror Matter

Many of the interactions in this (ordinarily visible) universe seem to be biased to the left. It is a known fact that the interactions of the known elementary particles, such as electrons, protons and neutrinos, have lefthanded interactions. Physicists called this a violation of 'parity.' If we based our understanding of the multiverse only on what happens in this 'left-handed' universe then there appears to be a violation of mirror-symmetry. However, every violation of symmetry points to a mirror universe. If ours is a left-handed universe, then perhaps somewhere out there, there must also be a right-handed universe. Is there a 'right-handed universe' interpenetrating our space?

Z K Siladge and Robert Foot think so. Furthermore, they think this can account for at least some of the dark matter observed. Siladge, in his paper 'Mirror objects in the Solar System,' says that nobody doubts that parity violations are firmly established experimentally. But, this does not necessarily mean that Nature is asymmetric (or that parity or mirror-symmetry has been violated). Symmetry can be restored if we can imagine a mirror world where for any ordinary particle there exists a 'mirror' particle.²⁴

The solution to the observed asymmetries within our own universe is therefore to postulate that there is a mirror universe which restores overall symmetry. The left-handedness of ordinary particles can then be balanced by the right-handedness of mirror particles. According to Foot, in his book 'Shadowlands' a range of persuasive evidence exist for mirror matter—and therefore dark or invisible matter.²⁵

Foot cautioned that mirror matter should not be confused with antimatter which has quite different properties. Anti-matter is the 'mirrormatter' relating to the reversal of the electric charge whereas Foots' mirror matter relates to the reversal of parity (i.e. 'left-right' reversal). Is there any relationship between this mirror matter and super matter?

Siladge, a strong proponent of mirror matter, equates mirror matter with shadow matter. These mirror particles are similar to super matter in that they are ordinarily invisible and interact with ordinary matter mainly through the gravitational field. It is, however, based on Foot's theory, different from super matter in that they have the same range of masses as standard particles. In other words, Foot is using a 'standard mirror.' Foot's mirror matter particles have the same energy levels as standard particles, except that they are 'right-handed' rather than 'left-handed.' The universe containing these mirror particles is considered a shadow universe with its own forces and particles.

In many cases, when Nature breaks symmetry it does not create two equal opposite halves. Instead, there is an underlying asymmetry that accompanies the break in symmetry which ensures that the two opposites are kept apart. This has happened for the imperfect mirror symmetry between matter and anti-matter—allowing matter to dominate in our universe; and the imperfect (super) mirror symmetry between force and matter particles in Superstring theories. John Hitchcock observes that Nature seems to be dissatisfied with too much symmetry. He points out that nearly all the symmetries in nature are less symmetric than the cause that gives rise to them.²⁶ Nature, at lower energies, has a passion for imperfect symmetry. The partners of left-handed particles in our universe are reflected in a *super* right-handed universe. There is evidence of this in the metaphysical literature!

Parity Reversals in Metaphysical Literature

After lifting out, I carefully examined the physical body on the bed. I reached down to touch my physical head, and my hands touched feet! I felt my toes. My left big toe has a thick nail—this left toe did not! The big toe on the right foot did have the thick nail. Everything was reversed, like a mirror image. There is a possibility that the Second Body is a direct reversal of the physical.

Robert Monroe 27

The reversal of parity occurs because the lowest super universe (or the 'physical-etheric universe' in metaphysical parlance) appears to be a mirror right-handed universe. But it goes beyond current scientific expectations as it is also an upside-down world—a case of a 'double-parity' reversal! Robert Monroe, in his book 'Journeys Out of the Body' explains (above) that when he tried to touch his head, he touched his foot instead (top-down reversal). When he tried to touch his left toe, he felt his right toe (left-right reversal).

In an experiment conducted by William Tiller, this parity reversal has also been observed. Tiller, reporting on this experiment, says that children see the spectrum with their physical eyesight and also a bent-up spectrum with their 'auric eyesight.' He concludes that this experiment confirms 'a type of "mirror" relationship functioning between the physical level and the next, more subtle (etheric level) of reality.' Tiller also reports that Qigong practitioners appear to be projecting a type of magnetic energy with inverse characteristics to a regular magnetic field.²⁸

Robert Monroe says that when someone is undergoing a dramatic shift in consciousness, such as having an out-of-body experience, the body's polarity, or electromagnetic field, simply reverses itself.²⁹ In 1939 W E Burge of the University of Illinois found that the voltage measured between the head and other parts of the body became more negative during physical activity, declined in sleep and reversed to positive under general anesthesia. Robert Becker and Charlie Howard also found that the back to front current in the human head varied with consciousness. It was strongest during heightened physical or mental activity, it declined during rest, and it reversed direction in both normal sleep and under anesthesia.³⁰ The polarity reversals betray shifts in the locus of awareness from one body to another. In normal waking consciousness, physical awareness is located in the biomolecular and the lower etheric physical bodies. During deep sleep this awareness shifts to the higher etheric double (inhabiting a reversed universe). The higher etheric body is not only of reversed parity; but also appears to be reversed in terms of polarity or charge.

Matter dominates this universe because anti-matter particles were pushed up to higher-energy levels. This is based on the observation that physical-etheric particles appear to possess a reversal in charge. The (standard) anti-matter particles so far observed by Science in our current universe are probably stray low-energy particles, created ad hoc in the laboratory or in space. Physical-etheric particles are super anti-matter particles.

At an even higher energy level there is also a foreground-to-background reversal which was observed by Barbara Brennan.³¹ These spatial reversals can make analysis of events in higher energy universes very tricky—even ignoring time reversals which cannot be ruled out. Even Alice's Wonderland would seem tame compared to these universes!

Objects in Super Universes

We see planets, stars and galaxies in our universe. We also see carbon-based life-forms on Earth. What would it be like in super universes? Would there be similar types of carbon-based life-forms as on Earth? What would the objects in super universes look like?

If super universes are higher energy universes, then multicellular organisms composed of biomolecules may not be possible as the higher energies will force atoms out of their chemical bonds and electrons out of atoms. At such high energy levels, the dominant state of matter would be expected to be in the form of plasma. But then, even our universe (outside of the Earth) is largely plasma-based. So, let's take a look at our own familiar neighbourhood before we extrapolate this to super universes.

CHAPTER 5

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Our Magnetic Plasma (Magma) Universe

Plasma Everywhere!

Plasma, which is rare in our close environment, is the dominant state of matter in the visible universe. The Sun and stars, as well as the diffused matter between them and between galaxies, are all in this state; despite great differences in density and temperature. A negligible amount of the matter in the visible universe make up the cold celestial bodies such as the Earth and other planets, the moons, asteroids, comets, meteors, and dust grains. Space probes have found electrified matter in layers around the Earth—and also farther out—blowing out from the Sun. In addition, the probes have discovered weak magnetic fields in interplanetary space that were guiding the movement of the plasma wind from the Sun. After travelling for more than 20 years and at the edge of the Solar System, Voyager 1 and 2 have reported that they are still in a plasma environment!

Plasma makes up more than 99% of our visible universe! In other words, biomolecular matter, which is so abundant on this planet and which makes up the bodies of a myriad of life-forms including our own, is not representative of matter even in this universe. In fact, it gives us a very misleading picture of our visible universe. The visible universe is, in fact, a plasma universe with bodies of plasma in a pervasive cloud of diffused plasma. (Non-ionised) molecular and biomolecular matter are practically non-existent—considering the visible universe as a whole. If that was so, then there is also a high probability that dark matter in invisible super universes are also in the form of plasma. The metaphysical literature suggests so.

What is Plasma?

To understand what plasma is, think of a hydrogen atom. As a whole, it is a neutral 'particle.' It consists of basically a positively-charged proton in the nucleus with a neutralizing negatively-charged electron forming a cloud around the nucleus. If enough energy is supplied, the electrons and protons will be able to break away from their atoms, overcoming their binding energies. In an idealised situation, they then separate to form a negatively-charged soup of electrons (or 'negative ions') and a positively-charged soup of protons (or 'positive ions') which is overall neutral and exhibits collective behavior. In other words, only the configuration of particles has changed. Plasma-like behavior can be observed even when only 1% of the atoms in a given volume lose their electrons. So partially ionized plasmas also contain neutral atoms.

Since there are large soups of free electrons in plasma, standard plasma (or plasma composed of standard particles) is an excellent conductor of electricity, far exceeding the conducting properties of metals such as copper or gold. They also respond to electrical and magnetic fields and can be an efficient source of electromagnetic radiation. Beams of electrons in plasma radiate microwaves. Plasma can become transparent or translucent as a result of an inter-play of frequencies within the plasma. Many types of plasma are also low density since they are composed of soups of particles of like charges which repel each other within the soup.

Examples of plasma in everyday objects include fluorescent lamps and neon lights. The aurora borealis (or Northern Lights) is another example of plasma. The Sun and stars are balls of plasma. All these objects emit light. Plasmas are far more difficult to model than solids, liquids, and gases.

The separation of electrons and (positive) ions produce electric fields and the motion of electrons and ions, within the plasma, generate both electric and magnetic fields. The electric fields accelerate the charged particles to high speeds, while the magnetic fields guide and confine them.

Magnetic Fields Everywhere!

Philipp Kronberg of the University of Toronto finds magnetic fields every place he has looked in the Cosmos: within the Milky Way, in intergalactic areas within galaxy clusters and even outside clusters. Angela Olinto working at the University of Chicago believes that magnetic fields existed at or shortly after the Big Bang. It has influenced subsequent galaxy formation and even the distribution of matter now seen imprinted in the cosmic microwave background.

On Earth, magnetic field strengths can be found from about 0.5 gauss. The larger planets have magnetic fields reaching many gauss, while the magnetic fields of stars are much higher—at 30-40 kilo gauss. Large scale magnetic fields have also been discovered in distant cosmic objects.

The centre of our galaxy has milligauss magnetic field strengths stretching out across vast distances. Scientists tell us that no rotating object in the universe is devoid of a magnetic field.

Where did the Magnetic Fields come from?

Just as scientists once asked where unaccounted gravitational fields at the edge of visible galaxies came from; they have also asked where these pervasive magnetic fields, which could not be traced to visible matter, may have come from. Not surprisingly, scientists theorised that the unaccounted magnetic fields in our universe are generated by the equally pervasive dark matter and energies in the local multiverse and permeate into our visible universe! Both gravitational and magnetic fields (not accounted for by visible matter) are indirect evidence of dark invisible matter. However, it begs the question: How does the dark matter generate magnetic fields?

The natural tendency of plasma to carry currents is an important source of magnetic fields. We know from basic electromagnetics that currents generate magnetic fields around them. Since plasma is pervasive throughout the universe, scientists believe that virtually all visible matter in the universe is magnetised. But magnetic fields are also found outside galaxy clusters where there is no visible matter. Where did these come from? The evidence points to dark super plasma.

If dark matter generates magnetic fields, as scientists think, this suggests that there is a high probability that dark matter is largely in the form of plasma composed of super particles (or super plasma) as this gives dark matter the ability to generate magnetic and electric fields. The presence of magnetic and electric fields (generated by the lowest energy super universe) can affect the dynamics of plasma in our universe, even more significantly than gravity.

Magnetic Fields Guide and Give Form to the Universe

Magnetic fields are the architects of the universe. They guide charged particle movements which sweep up both charged and neutral matter with them to shape matter into different forms. Scientists studying patterns in plasma from the laboratory and in interplanetary space infer that there is a hierarchy of magnetic fields in the universe with an associated hierarchy of electric currents. Magnetic fields and electric currents 'feed' on each other and breed new fields and currents.

Magnetism is the fundamental force that determines the character, motion and shape of ionised matter (or plasma). It therefore determines the large scale structure of our universe and super universes. The degree of ionisation in interplanetary space and in other cosmic plasma may vary over a wide range, from fully ionised to degrees of ionisation of only a fraction of a percent. Even weakly ionised plasma reacts strongly to electromagnetic fields since the strength of the electromagnetic force exceeds many times the gravitational force. Electromagnetic fields play an important role in the dynamics of plasma, and the dynamics of plasma often give rise to electromagnetic fields.

The close correspondence between observed magnetic fields and those modeled in supercomputers, relating to interactions of intergalactic-current filaments, provide further evidence to scientists that magnetic fields shape galaxies and the large-scale structure of the universe. In diffused, weakly ionised matter, which forms a major part of the universe, the motion of each individual charged particle is strongly controlled by the magnetic field. For example, a hydrogen ion in the solar wind may experience a magnetic force more than 100 times stronger than the gravitational force from the Sun. Within the framework set by the larger magnetic field, the charged particles of plasma engage in their own complex electromagnetic interactions, generating a web of filamentary currents.

Magnetic Plasma (Magma)

Klaus Dolag says that from the Earth's ionosphere, out to the most distant intergalactic regions, all cosmic plasma are penetrated by magnetic fields that influence their physical properties in various, often dramatic, ways. Once plasma contains magnetic fields, they move with the plasma *as if* the magnetic field lines were frozen in. Since the magnetic fields move with the plasma, they are compressed with the plasma, and their strength increases as the plasma becomes more and more dense.¹ Any rotation of the plasma would twist the embedded magnetic field causing *helical* structures to appear when charged particles circle around the field lines.

While all matter is subject to gravitational forces, the positive ions, and the negative electrons react strongly to electromagnetic forces. Because of this strong interaction with electromagnetism, plasma displays a complexity in structure that far exceeds that found in gases, liquids and solids. Magnetic fields within plasma allow the formation of unique signature structures within plasma and regulate the flow of charged particles. These types of plasma are called 'magnetised plasma' or 'magma' for short, in this book.

Birkeland Currents in Magma

In a paper on 'The Evidence for Electrical Currents in Cosmic Plasma'; Anthony Peratt, from the Los Alamos National Laboratory, states that there is a tendency for charged particles to follow magnetic lines of force. This forms the basis of transmission lines in space. For plasma immersed in strong magnetic fields, electric currents tend to flow along the magnetic field lines, which act like wires guiding the current. These currents are known as 'Birkeland currents' in plasma cosmology. One of the most compelling pieces of evidence for the existence of Birkeland currents came from the discovery of faint super cluster scale radio emissions at 326 MHz between the Coma cluster of galaxies and the Abell 1367 cluster.²

In magnetic plasma or magma, electric fields aligned along the magnetic field direction freely accelerate charged particles. Electrons and ions are accelerated in opposite directions, giving rise to a current along the magnetic field lines.

Lighting up Earth's Magnetic Field

On some clear nights, in the Arctic and Antarctic regions, the sky is filled with undulating sheets of luminescent colors that move and dance called 'auroras.' It is the visible manifestation of huge, invisible electric currents plunging into the Earth's atmosphere—guided by magnetic lines of force. The aurora is a natural magnetic plasma light show comprising standard particles.

Currents in Space

Wherever charged particles flow in a neutralizing medium, such as free electrons in a background of ions, the charged particle flow or current produces rings of magnetic field lines around the current, pinching the plasma into multi-filamentary strands of conduction currents. These filaments can be found in laboratory plasma and abound in cosmic plasma.

The Cosmos is a vast, interconnected body of invisible magnetic fields guiding almost invisible electrified streams of charged particles (i.e. the Birkeland currents, discussed above) that become visible only where they converge (or pinch) to spin out galaxies and stars. 'Computer simulations have been telling us for several years that most of the "missing" gas in the universe should be in hot filaments,' said Smita Mathur, an Ohio State University researcher. 'Most of those filaments are too faint to see, but it looks like we are finally finding their shadows.' At cosmic scales, scientists have now confirmed that filaments exist between stars.

Concentric Shells, Sheaths and Cells

One of the unique characteristics of space plasma, revealed by satellites and space probes, is its tendency to form sharp boundaries between plasmas with different properties. Plasmas with different properties have a tendency to separate to form concentric shells, with electrified 'sheaths' around them. Cells form within them. This allows the generation of electric fields in space (for example, when plasma of different polarities separate forming a kind of battery with positive and negative terminals). This can drive electric currents over very large distances. This is similar to low pressure and high pressure areas on Earth which cause winds to blow over long distances over the planet. The cellular structure of plasma can be seen clearly in the granulation of the Sun.

Super Earths and their Structures

If there are super universes which interpenetrate our universe, according to Superstring theory, then what about the Earth? Would there be counterpart dark matter Earths interpenetrating the physical Earth? If so, how would they be formed and structured; and what would the physics in these Earths be like?

In order to understand these 'super Earths'; we will look once again at our own backyard—the familiar physical Earth and how it is structured. We will then combine this knowledge with our knowledge about the magnetic plasma universe to get some idea about how these super Earths are structured.

CHAPTER 6

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Shells In Earth's 3d Sphere

The Lower 3d World

The Earth, as we know it, is a 3 dimensional near-sphere. It has a radius of 6,500 km or 4,040 mi (i.e. the distance from the surface of the Earth to its centre, which is approximately 6,380 km or 3,965 mi; and the atmosphere). Science has identified concentric layers or shells (or rings) of the physical Earth—as enumerated and described below.

Most of the information that scientists have of the *lower* shells in the physical-dense 3d sphere comes from the way seismic shockwaves are distorted and reflected through the planet during earthquakes, the activity of the geomagnetic field (which is generated by the outer core, as discussed below) and the composition of meteorites from space. From this evidence, it has been established that the Earth (below the surface) is composed of three principal layers; the crust, the mantle and the core. The mantle is the layer beneath the crust which extends about half way to the centre. If you could imagine a near-spherical egg, the yolk would be the core, the white albumen would be the mantle; and the shell would be the crust.

Although the core and mantle are about equal in thickness, the core actually forms only 15 percent of the Earth's volume, whereas the mantle occupies 84 percent. The crust makes up the remaining 1 percent.

If the Earth was of perfectly uniform composition then, during a descent to the centre of the Earth, gravity would *decrease* linearly with distance, reaching zero at the centre. In reality, the strength of the gravitational field peaks within the Earth at the core-mantle boundary where it has a value of 10.7 m/s^2 . It is 9.8 m/s² at the surface of the Earth.

3d Sphere Shell #7: The Solid Inner Core

At the centre of the Earth, is the solid iron core, a sphere with a radius of some 1,280 km (795 mi). The boundary of this sphere is 5,100 km (3,170 mi) from the surface. At this depth, the pressure is estimated to be over 14.2 million times the atmospheric pressure.

The inner core is separated from the rest of the planet by the molten outer core (see below). Scientists say that it rotates in the same direction as the Earth but slightly faster than the entire Earth. In fact, every 400 years it gains one extra rotation according to University of Columbia's Observatory. The temperature of the inner core is hotter than the Sun's surface. Though this temperature is sufficiently hot to melt iron, it remains solid because of the immense pressure exerted at the interior by the Earth's weight. It is currently thought that the inner core is composed of nickel, iron and probably sulfur.

3d Sphere Shell #6: The Molten Outer Core

Around and above the solid inner core is the 2,210 km (1,373 mi) thick outer core which is a sea of liquid iron. The motion of the fluid around the shell (or ring) which brings with it electrically conductive material, generates Earth's magnetic fields which shield us from harmful solar radiation.

3d Sphere Shell #5: The Mantle

The Earth's entire mantle, a region of hot rock that, over vast, geological timescales, churns like a fluid, is some 2,855 km (1,775 mi) thick. The fluid is highly viscous—more viscous than the molten outer core (as described above). It's made of solid rock and behaves like a hyperviscous liquid.

3d Sphere Shell #4: The Crust

Although it feels solid and hard beneath our feet, the outer surface of the Earth is a thin crust of fragile rock, fractured like the cracked shell of an egg and 'floating' on the mantle. It is composed of granite and basalt rock up to 35 km (22 mi) thick—although it varies from place to place. The pieces of the broken shell are Earth's tectonic plates which float across a layer of soft rock like rafts in a stream, their motions driven by forces generated deep within the Earth. At their boundaries, the plates spread apart, converge, and slide past one another.

The Higher 3d World

The Earth is surrounded by a blanket of air, which we call the atmosphere. The atmosphere has no abrupt cut-off point. It slowly becomes thinner and fades away into the vacuum of space. For practical purposes, however, the 'Karman line,' which is 100 km (62 mi) from the Earth's surface, is frequently used as the boundary between Earth's atmosphere and space. More than 99% of the mass of atmosphere is below this line. If one were to consider the ionosphere and exosphere as part of the atmosphere and not of space, the boundary between the atmosphere and space would be as high as about 10,000 km (6,200 mi) up from the surface—somewhat less than one Earth diameter from the surface. Up to 80 % of all the water in the atmosphere is found within 3 km (1.9 mi) from the Earth's surface.

3d Sphere Shell #3: The Troposphere

The troposphere is the lowest layer of the atmosphere starting at the surface going up to between 7 km (4 mi) at the poles and 17 km (10.5 mi) at the equator with some variation due to weather factors. This part of the atmosphere is the densest. As you climb higher in this layer, the temperature drops from about 17 to -52 degrees Celsius. The air pressure at the top of the troposphere is only 10% of that at sea level. The troposphere contains 99 % of the water vapor in the atmosphere. Almost all weather is in this region. The 'tropopause' separates the troposphere from the next layer. Scientists identify the tropopause and the troposphere as part of the *lower atmosphere*.

3d Sphere Shell #2: The Stratosphere and Mesosphere

The stratosphere starts just above the troposphere and extends to 50 km (31 mi) high. Compared to the troposphere, this part of the atmosphere is dry and less dense. The temperature in this region *increases* gradually to -3 degrees Celsius, due to the absorption of ultraviolet radiation. The ozone layer, which absorbs and scatters the solar ultraviolet radiation, is in this layer. Ninety-nine percent of 'air' is located in the troposphere and stratosphere. The 'stratopause' separates the stratosphere from the next layer.

The mesosphere starts just above the stratosphere and extends to between 80 km (50 mi) and 85 km (53 mi) high. In this region, the temperature decreases to as low as -93 degrees Celsius as you increase in altitude. The 'mesopause' separates the mesophere from the ionosphere. The regions of the stratosphere and the mesosphere, along with the stratopause and mesopause, are called the *middle atmosphere* by scientists.

3d Sphere Shell #1: The Thermosphere and Exosphere

Thermosphere

The thermosphere starts just above the mesosphere and extends beyond the 'Karman line' (the 'official' boundary of the atmosphere) to 600 km (373 mi) high. The temperatures go up as you increase in altitude due to the Sun's energy. Temperatures in this region can go as high as 1,727 degrees Celsius. Chemical reactions occur much faster here than on the surface of the Earth. Scientists call this layer the *upper atmosphere*.

The ionosphere (which overlaps with the thermosphere) is where many atoms are ionised (i.e. they are pushed into a plasma state) and where the auroras take place. It is responsible for absorbing the most energetic photons from the Sun; and for reflecting radio waves, making long-distance radio communications possible. Although radio waves pass readily through walls, they are reflected back by this zone due to the peculiar properties of plasma. The ionosphere is the closest of several *electrified sheaths* that surround and protect the Earth. It is a natural *plasma* resonator.

Exosphere

The exosphere starts at the top of the thermosphere and continues until it merges with interplanetary gases and the vacuum of space. In this region of the 'atmosphere,' hydrogen and helium are the main components and are only present at extremely low densities.

Concentric Shells

The above description relating to the structure of the atmosphere is a popular one. Nevertheless, there are various other models that structure the atmosphere in different ways.

Although scientists have termed the various layers as 'spheres' this is, strictly speaking, not very accurate. For example, in terms of the external layers (i.e. the layers above the Earth's crust), the 'troposphere' is not a sphere in the sense that a basketball would be—because it does not extend to the centre of the Earth—it surrounds the Earth and it sits on top of the Earth's crust. It is in fact a layer, a *ring* (from a two-dimensional perspective); or a *shell* (from a three-dimensional perspective) around the Earth. Similarly, the inner layers (i.e. the layers below the Earth's crust), the mantle and the outer core are also 'rings' or 'shells' around the inner core. Only the inner core is a true sphere. To be consistent with the terminology applied to the other layers, however, we could still call it a shell, but within quotation marks i.e. 'shell.'

The name 'rings' is somewhat misleading in that these structures just appear to be rings when projected on the sky. They are more likely to be 'shells.'

Corradi et al, describing shells around planetary nebulae.¹

Hence, according to mainstream Science, Earth's 3d sphere is organized in *concentric shells (or rings)* around the inner core, according to the density of the shell. If we cut a cross-section, passing through the centre of the Earth, the resulting section would look like rings in a bull's eye pattern.

Alternative Idea about the Composition of Earth's Core: The Plasma Core Idea

According to H G Owen², the pressure and heat in the interior of the Earth is enough to maintain a plasma core. He believes that the solid nickel-iron core of the textbooks may be a myth. Owen explains that the behavior of waves passing through a plasma core would be similar to that of in a solid iron core. He suggests that if the inner core is plasma then there is a potential for expansion when the core changes from a plasma into an atomic state. The Earth's outer core may be molten because it has already changed into its atomic state.

Mercury, Mars and the Moon appear to be too low in mass to sustain plasma cores. On the other hand, Venus is almost as massive as the Earth and may still have a plasma core. Information about its surface so far indicates a highly mobile crust. Owen points out that a plasma core provides a better explanation for the behavior of the mantle which surrounds the Earth's outer core. He believes that the Earth's magnetic field can be generated as effectively by a plasma core as by one of nickel-iron.

Earth's Magnetic Field

Interpenetrating the Earth's atmosphere and extending far into space is the geomagnetic field of the Earth, which can be imagined as a magnetic field generated by a bar magnet tilted about 11 degrees to Earth's spinning axis. Scientists believe that it is generated by the activity in Earth's Physical-Dense Shell #6 or the molten outer core, discussed above. It is structured like a magnetic-grid-like system, somewhat like the segments of an orange with intersecting lines. These *invisible* grid lines are called fey lines, and they can vary in intensity from place to place, based on variations in gravitational force, the presence or absence of large mineral deposits like quartz, and the presence of underground streams or large aquifers, all of which can alter the electromagnetic background on the Earth's surface.

Earth's Magnetosphere

The magnetosphere is that area of space, surrounding the Earth, that is controlled by the Earth's magnetic field. Because of the blast of the solar wind, which travels at supersonic speeds, the magnetosphere is flattened on the day side (i.e. the side facing the Sun) and a tail forms at the night side (the side facing away from the Sun). The magnetosphere shelters the surface of the planet from high energy particles in the solar wind which is harmful to life-forms. At the lower limit, the magnetosphere ends at the ionosphere. The magnetosphere is filled with plasma that originates both from the ionosphere and the solar wind.

Earth's Plasmasphere

Within the magnetosphere is the plasmasphere, which extends out to 1 to 1.5 Earth diameters. However, under quiet conditions on the night side, it can extend to more than 3 Earth diameters. Because conditions in space constantly vary and regions never have exact boundaries, plasma physicists measure the plasmasphere relative to the size of Earth. The extent of the plasmasphere depends on space weather activity. High levels of activity erode the plasmasphere; long periods of quiet allow the plasmasphere to expand. Since the plasmasphere is within the magnetosphere, it is in fact a region composed of magnetic plasma. To this extent it may be considered a 'magmasphere' (or magnetic plasma sphere).

Just like the Earth, each planet in the Solar System has a 'plasma sheath'—the size and shape of which is determined by the difference between the electrical potential (voltage) of the planet and that of the nearby solar plasma. The shape of this plasma sheath is usually a 'tear-drop,' the long-tailed pointed end facing away from the Sun. The boundary of this sheath is a double layer that separates the planet's surrounding plasma from the solar plasma.

The Moon's 3d Physical-Dense Sphere

The Moon has a radius of 1,750 km (1,088 mi). This means it is a little more than one quarter the size of Earth or only half the size of Earth's core. The Moon has no atmosphere or magnetic field.

Our knowledge of the details of the Moon's interior is very limited. Scientists say that the Moon has a crust which is about 65 km (40 mi) thick, a mantle about 1,000 km (600 mi) thick, and a core that is about 500 km (300 mi) in radius. A limited amount of seismic data suggests that the outer core may be molten.

Although there is a small amount of geological activity on the Moon, it is largely 'geologically dead.' Most lunar seismic activity appears to be triggered by tidal forces induced in the Moon by the Earth's gravitational force. These tidal forces also cause the Moon to become slightly distorted in shape. Hence, the Moon is not a perfect sphere.

Journey into Superspace

Now that we have a fair amount of knowledge regarding the structure of the physical Earth and the properties of magnetic plasma, we are ready to explore Earth's dark matter counterparts! These dark matter Earths are of higher frequency, higher energy and have additional space dimensions.

CHAPTER 7

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Super Magmaverses and Magmaspheres

Bernard Carr is a professor of mathematics and astronomy at Queen Mary, University of London. He received the Adams prize in 1984, one of the UK's most prestigious mathematical awards. He is a member of several professional societies, most notably the Royal Astronomical Society and has published nearly 200 research papers and dozens of popular science articles. He points out in a speech given at the Euro-PA Conference in November 2003, entitled 'Is there Space for Psi in Modern Physics':

The higher dimensional 'reality structure' required to accommodate psychic experiences is intimately connected with the higher dimensional space invoked by modern physics.

... This 'universal structure'... necessarily incorporates physical space but it also includes non-physical realms which can only be accessed by mind... This is very far removed from the naive view of reality adopted by... reductionist materialists who reject psychic phenomena out of hand.

Bernard Carr, Mathematical Physicist

If parallel universes are taken to mean universes which share the same spacetime as ours, then we have to include the 'super universes' popularised by metaphysicists. They are called 'super' because they are composed of particles which are much higher in mass, energy and frequency than particles in the Standard Model; and exist in universes which have more spatial dimensions than our current universe. As discussed in Chapter 4 (Dark Matter is Super!), the Standard Model, used by physicists currently to describe and classify most of the 'standard' particles in our ordinarily visible universe, is acknowledged to be incomplete by most scientists. Super universes are composed of super particles which are ordinarily invisible to us and our current scientific instruments—just like dark matter and energy, which Science has had an embarrassing confrontation with in recent years.

Conceptually, super universes can be imagined to extend vertically from our universe to higher energy levels. Mirror universes, often met in science fiction books, can be imagined to extend horizontally from any identified universe. Mirror universes, which are approximately at the same energy levels, are contra-factual. This means they contain opposite attributes (such as charge, parity or time reversals). If taken together, at the same energy levels, these contra-factual universes would 'cancel-out' like matter and anti-matter. Super universes, however, are a spectrum of universes which increase in energy levels so they do not cancel out when taken together. In fact, they represent different phases in the energy spectrum of the manifested multiverse. Even when they do possess contrafactual attributes they do not cancel-out because (metaphysical) super universes are at different energy levels.

The physical world is only a small part of the entire spectrum of matter. It is the most dense, most concrete of a series of worlds ranging from the extremely tenuous 'superphysical' to the solid physical. This is an idea found in ancient Egyptian mysteries, Hinduism and Buddhism.

> Shirley Nicholson, 1977 Commenting on Charles Leadbeater's book, 'Inner Life'¹

Professor Parker, speaking at the 2004 Institute of Physics Nuclear Physics Conference in Edinburgh, UK, said 'The universe as we know it is just a tiny part of the Cosmos.' This statement will not surprise any metaphysicist. It is a fundamental fact in metaphysics that there are multiple super and mirror universes. According to the metaphysical literature, as we move-up super universes, we will find more energetic particles, with higher frequency, mass and/or spin.

Super Magma Universes (or Magmaverses)

In Chapter 5, we observed that even our current 'low energy' universe is more than 99% composed of magnetic plasma or 'magma.' The Earth's plasmasphere is also composed of magma. This is also true for super universes.

The higher energy of super particles allows these particles to break free into their constituents. As more and more energy becomes available, molecules and atoms lose their electrons and become ionised. Objects in super universes are therefore generally not organized in the form of molecules or atoms as found generally on the surface of the Earth or your familiar (ordinarily visible) physical body.

Super particles form *super dark plasmas*, or magnetic plasmas of super particles, in higher energy universes. Hence, these higher energy universes are described as 'super magma universes.'

Based on descriptions in the metaphysical literature, signature structures found in standard magma abound in super universes—including filaments, sheaths and spiral or helical trajectories of particles. This evidences that higher energy super universes and the bodies that inhabit them are substantially composed of magma. In fact, this will explain many of the features, descriptions and behavior of 'subtle bodies'; and the appearances of ghosts and religious apparitions, described by experimental metaphysicists and paranormal investigators all around the world and in ancient scriptures.

Metaphysicist Leadbeater says that on higher planes, everything is what down here we would call luminous (in other words it emits light—like plasma), and above a certain level everything may be said to be permeated by fire. 'Try to think of a fire which does not burn, but is in a liquid form, something like water,' he says. 'All astral matter is in itself luminous, though an astral body is a sphere of living fire,' ² he adds. A liquid fire is a perfect description of plasma.

Dark matter vs. Super Magma

Magnetic plasma of different densities and other properties naturally separate into different regions, with denser matter separating from the more tenuous matter—so does dark matter, based on studies of its density distribution in galaxies. Dark matter is described as 'diffused' and of low density; just like plasma. Dark matter objects are supposed to pass right through each other, just like objects in collisionless plasma. Furthermore, super universes are higher energy universes and plasma is associated with higher energies. If even our (low energy) current universe is largely a magma universe, it is highly probable that (even higher energy) super universes are magma universes. All this indicates that dark matter (just like visible matter) is largely in the form of plasma. Hence, plasma cosmologists should consider not only the effects of visible plasma but invisible plasma in the architecture of the universe.

Plasmas are not just the 'fourth state of matter'—they are really the first state in modern cosmology, and they continue to be, by far, the dominant state of visible matter in the universe; perhaps also of invisible matter as well if so-called 'dark matter' continues to remain unobserved and unexplained.

> Timothy Eastman, President, Plasmas International

The super magma universes of metaphysicists are dark matter universes.

Electromagnetic Universes

What we call mass would seem to be nothing but an appearance, and all inertia to be of electromagnetic origin.

Henri Poincaré, Renowned Mathematician ³

The higher energy super universes and our current universe are increasingly being considered parts of an 'electric' or 'electromagnetic' multiverse. The magma universe, which abounds in electrical and magnetic fields, is an electromagnetic universe.

Even the concept of 'mass' is now being explained through the interaction of electrical charges in matter with the zero point field. Bernhard Haisch says that there is no such thing as mass—only electric charge and energy, which together create the illusion of mass. 'The physical universe is made up of mass-less electric charges immersed in a vast, energetic, allpervasive electromagnetic field. It is the interaction of those charges and the electromagnetic field that creates the appearance of mass.'⁴

In other words, Haisch explains, the book you now hold in your hands is, strictly speaking, mass-less—it is physically nothing more than a collection of electric charges embedded in a universal energetic electromagnetic field and acted on by the field in such a way as to make you think the book has mass. Its apparent weight and solidity arise from the interactions of the charges in your body with the pervasive field. Each time you turn a page of this book, a redistribution of charges, resulting from the interaction between the electrons on your skin and those on the paper, allows you to grip the paper and turn the page.⁵

Earth's Super Magmaspheres

A small number of scientists have reacted sceptically to the existence of dark matter, despite the overwhelming evidence, by suggesting that, perhaps, Newton's gravity law (which is also incorporated in Einstein's theories) should be modified. Ironically, if we did observe that the gravity law was modified around galaxies, it may provide more evidence of dark matter. This is because under String theories the gravity law would no longer be inverse-square (as in our 3-dimensional space), but would be inverse-cube in 4-dimensional space; inverse-fourth in 5-dimensional space, and so on. This means that observations of differences in gravity laws around galaxies may actually provide more evidence of higher dimensional super universes which harbour dark matter.

If Earth is interpenetrated and surrounded by what scientists call 'dark (or invisible) matter' then it would posses dark matter counterparts which would be currently invisible to us. These dark matter Earths would be the super-physical counterparts in super magma universes of the physical Earth in our current universe.

Our Sun is moving faster around the Milky Way than what Newton's formula would dictate, suggesting that it is under the gravitational influence of dark matter in the galaxy. However the density of dark matter within the Solar System is estimated to be low. The solar planets comply with Newton's formula. A low density halo interpenetrating the Earth, however, could still support plasma-based life-forms within it if it is composed of magnetic plasma. The invisible spaces between the widely dispersed particles in a low density plasma are not empty – they contain dynamic electric and magnetic fields. Filamentary currents, carrying energy, flow through plasma.

It would then be reasonable to theorise that the popular 'heavens' and 'hells' described in many religions and cultures could actually be places in these invisible higher energy and higher frequency dark matter counterparts of Earth, with their own life-forms and landscapes. They would be invisible to the sensory systems associated with our physical body and our current scientific measuring systems—just as radio galaxies were invisible to us less than a hundred years ago, until the radio telescope was invented and used.

Metaphysicists have long known about the existence of these spheres which interpenetrate the ordinarily visible physical Earth; and have given them names as follows (in ascending order of their frequency and dimensionality): Earth's 3d-double or the 'physical-etheric' sphere, the 4d astral and other higher dimensional spheres (called by various names, including 'spiritual,' 'causal' and 'mental'). Since the super universes of metaphysicists have been identified as magmaverses (or magma universes), these spheres are described as 'magmaspheres' in this book. The relevant physics operating in these magmaspheres are the subject of a study that the author describes as 'plasma metaphysics.'

The dark matter counterparts of Earth form concentric spheres around the physical form of the Earth; and are thought to harbour the common heavens and hells. The physical and dark matter counterparts share the same gravitational field.

The practice of looking up to the sky to pray (in whatever country around the globe) then may be quite correct since a number of dark matter heavens (and their beings) would actually be located in the Earth's atmosphere.

The Earth's super magmaspheres extend beyond Earth's physical atmosphere (forming a halo around the Earth). Sightings at the higher end or beyond the Earth's atmosphere may represent events taking place in any of these interpenetrating spheres. It is interesting that NASA has recorded astronauts having 'hallucinations' as they orbited the Earth at that altitude. Were they?

Cultures which situated their gods at the summits of mountains may have witnessed sightings in the past of gods high up in the atmosphere and within the physical-etheric, astral or other magmaspheres, superimposed against the summits. Sightings which occur at the summits of high mountains and near cloud level, and which leave no physical evidence, represent events taking place in these ordinarily invisible magmaspheres. General weather conditions in each sphere do not affect other spheres.

Atmospheric and climactic conditions make practically no difference to work on the astral and causal planes.

Charles Leadbeater, 1910 6

Different Levels?

We learnt at the beginning that heavens and hells in religion and in history are often structured into many different levels. Do Earth's magmaspheres also structure themselves into many levels? If so, this would provide better support for our claim that the popular heavens and hells do indeed interpenetrate the physical Earth.

CHAPTER 8

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Structure of Earth's Magmaspheres

Universal Density Profile of Dark Matter

Astral matter gravitates towards the centre of the Earth, just as physical matter does.

Charles Leadbeater, Metaphysicist, 1910¹

Dark matter halos produced in simulations tend to have significantly steeper logarithmic density gradients in their cores than do observed structures.

> John Arabadjis and Mark Bautz, Physicists, 2005²

In 1910 Leadbeater reported that the densest aggregation of astral (or dark) matter is within the periphery of the physical body of a man. Similarly, in the case of the Earth, the greater part of its astral (or dark) matter is gathered together within the limits of its ordinarily visible physical sphere. However, the astral 'body' of the Earth as a whole, outside the physical, is enormously greater than when compared to a human being.² Extrapolated to galaxies, we would expect that the proportion of the astral magmasphere outside an ordinarily visible galaxy to be enormously greater than in the case of an average person.

This is, in fact, supported by observations. A study using the Sloan Digital Sky Survey provides the most direct evidence yet that galaxies reside at the centre of giant, dark matter concentrations that may be 50 times larger than the visible galaxy itself! The 'lambda cold dark matter' model also supports the density profile observed by Leadbeater. This popular scientific model explains very well many large-scale structures in the universe and predicts that dark matter rapidly increases in density towards the centre of a galaxy. Astrophysicists modeling the motion of dark matter say that each clump had a density that peaked in the centre and fell off toward the edges in exactly the same way, independent of its size.³ Observations with the Chandra X-ray Observatory also support the cold dark model. To test the model, researchers used Chandra's sharp optics to measure the temperature and intensity of the hot, X-ray-emitting gas in a galaxy cluster some 4 billion light-years from Earth. The data obtained by John Arabadjis and Mark Bautz of the Massachusetts Institute of Technology, along with Gordon Garmire of Pennsylvania State University in State College, found that the density is greater the closer it is to the centre of the cluster.

Core of High Density Dark Matter

Hence, there should be a core of high density dark matter in Earth's magmaspheres—much like the core found in the physical Earth. In fact, some physicists have already theorised that there could be a large concentration of dark matter in the Earth's core due to Earth's gravitational attraction.

Leadbeater had also observed that the 'fiery' kundalini, a dense form of super plasma, originates from the centre of the Earth—distinguishing it from 'prana' or 'qi' which he observes emanates from the Sun. He says, 'The force of kundalini in our bodies comes from deep down in the Earth. It belongs to that terrific glowing fire of the underworld. That fire is in striking contrast to the fire of vitality which comes from the Sun.'⁴

The higher density super physical matter, gravitates and sediments below the Earth's crust. This core can be considered the first 'shell' of the magmasphere. We would expect other shells to then form, as magnetic plasma has a natural tendency to separate if it has different densities.

Formation of Shells in Earth's Magmaspheres

Almost every metaphysicist agrees that the magmaspheres are divided into shells. This division into shells is, in fact, a natural consequence of the behavior of magnetic plasma. Each magmasphere, which represents an environment of weakly ionised gas, can be considered a 'plasma crystal.'

Concentric Shells in Plasma Crystals

H Thomas and his colleagues have generated plasma crystals in the laboratory. These crystals were in the form of assemblies of particles which were held in a crystal-like array by a plasma of weakly ionised gas. When the assembly of microscopic particles was contained between two electrodes and illuminated by a laser beam, it could be seen, even with the naked eye, that the particles naturally arranged themselves regularly into as many as 18 planes parallel to the electrodes.

In another more recent experiment, the particles in a plasma crystal arranged themselves into neat *concentric shells*, to a total ball diameter of several millimetres. These orderly Coulomb balls, consisting of aligned, *concentric shells* of dust particles, survived for long periods.⁵

Concentric Shells around Galaxies

Dark matter is also present in the halo of elliptical galaxies. These elliptical galaxies reveal the presence of faint *shells* on deep photographic plates. These shells extend out to two or three times further than the bulk of the starlight. As many as 20 shells have been discovered around one bright galaxy. The spacing of the shells is a measure of the gravitational field, and computer simulations result in a similar array of concentric shells. Modeling of the shells requires the presence of a massive dark halo. Shells have also been found in other galaxies.

We construct a model consisting of a set of concentric spherical shells whose inner and outer radii correspond to the angular radii of the annuli [i.e.rings] in the data.

> John Arabadjis et al, Physicists, 2005 ⁶

The presence of shells in dark matter around galaxies confirms its plasma state. It is well-known that in interstellar plasmas and dust clouds, in comets, in accretion disks around stars, and in planetary ring systems in our physical universe, the interaction between *standard* plasmas and dust plays an important role. Dark matter appears to show similar interactions. This is strong evidence that super dark plasma is involved in interactions which can be modeled by using standard plasma.

Concentric Shells around Nebulae

The Cat's Eye Nebula (NGC 6543) is a nebula in the constellation of Draco. Images, taken with Hubble's Advanced Camera for Surveys, reveal the full beauty of a *bull's eye pattern* of eleven or even more concentric rings, or

shells, around the Cat's Eye. Each shell is actually the edge of a spherical bubble seen projected onto the sky—which makes it appear bright along its outer edge.

Observations suggest that the star ejected its mass in a series of pulses at 1,500-year intervals. These convulsions created dust shells, each of which contains as much mass as all of the planets in our Solar System combined. These concentric shells make a layered, onion-skin structure around the dying star. The view from Hubble is like seeing an onion cut in half, where each skin layer or shell is discernible.

Until recently, it was thought that such shells around planetary nebulae were a rare phenomenon. However, Romano Corradi (from the Isaac Newton Group of Telescopes, Spain) and collaborators, in a paper published in the European journal Astronomy and Astrophysics in April 2004, have shown that the formation of these shells is likely to be the rule rather than the exception.⁷

Concentric Shells in the Earth's Magmaspheres

Similarly, concentric shells (like onion rings) form within each magmasphere as a natural consequence of magneto-hydrodynamics (the dynamics of magnetic plasma). The physical Earth has a magmasphere (a 'plasmasphere' within a 'magnetosphere'). The 4d astral Earth, however, consists entirely of an astral magmasphere — composed of what has been mappedout by most metaphysicists to be seven shells with decreasing densities of astral matter, moving out from the centre of the Earth. The separation of magma into different layers, rings or shells of different densities in the magmasphere is thought to be caused by both electromagnetic and gravitational forces.

As we move-up the energy ladder, each shell becomes less dense, more tenuous and higher in frequency. Joel Whitton and Joe Fisher say, in their book 'Life between Life,' that 'each higher plane is lighter and brighter than the one before.'⁸

Formation of Double-Layers within the Magmaspheres

One of the most important properties of any electrical plasma is its ability to 'self-organise'—that is, to electrically isolate one section of itself from another. The isolating wall is called a 'double-layer.' When a plasma is studied in the lab, it is usually contained in a closed cylindrical glass tube. Electrodes are inserted into the ends of the tube—one electrode (called the anode) is maintained at a higher voltage than the electrode at the other end (the cathode). When such a voltage difference is applied, ionisation is initiated and a current will start to flow through the plasma. Positive ions (atoms with one or more electrons stripped-off) will migrate away from the anode, and negative ions (atoms carrying one or more extra electrons) will move toward the anode. If the voltage difference from one electrode to the other becomes large enough, a thin double-layer will form somewhere in the middle of the tube.

The plasma on one side of the double-layer (the side toward the anode) will have approximately the same voltage as the anode. The plasma on the cathode side of the double-layer will have essentially the same voltage as the cathode. The two halves of the plasma are then electrically isolated from one another by the double-layer. No electrostatic force is felt by particles on one side of the double-layer due to charges on the other side of the double-layer. The double-layer is where the strongest electric fields in the plasma will be found.

Between Heaven and Hell

Each magmasphere has a dense centre (consistent with the cold dark matter model) which generates a high voltage compared with voltage present in the vacuum of space. This voltage difference generates a double-layer within the magmasphere, with strong electric fields.

The Gospel of Luke⁹ tells of a rich man who died and was buried. In *hell* he lifted up his eyes, being in torments, and sees Abraham and Lazarus at a distance. He cried and said, 'Father Abraham, have mercy on me—send Lazarus, that he may dip the tip of his finger in water, and cool my tongue; for I am tormented in this flame.' But Abraham said, 'Son, remember that in your lifetime you received good things but Lazarus received evil things: so now he is comforted; and you are tormented. And then he added:

'And besides all this, between us and you a great chasm has been fixed, in order that those who would pass from here to you may not be able, and none may cross from there to us.'

We would now interpret this 'great chasm' as a double-layer rife with electric currents—separating the lower shells (the 'hells') from the higher (the 'heavens').

Electromagnetic Domains and Fences

According to Anthony Peratt, highly conducting plasma has a natural tendency to separate *within* charged particle sheaths or cellular-like walls. This structure appears wherever samples with different densities, temperatures or magnetic field strengths come into contact.¹⁰ Hence, shells of different densities form on either side of the double-layer within the magmasphere. Furthermore, where adjacent plasma regions have different properties (such as magnetic and electrical properties) more double layers will form to cellularise and form sheaths around the different regions. Hence, each shell will also be separated by sheaths. These electrified sheaths bordering the shells act as electric fences—making it difficult for magma bodies to 'escape' or wander off to another shell.

Frequency Domains

Paramahansa Yogananda explains that various 'spheric mansions' and 'vibratory quarters' are provided to astral beings. Astral beings of different grades are assigned to different vibratory quarters—i.e. the cells within the shells. 'Advanced beings are, however, able to cross *boundaries*.' ¹¹[Emphasis added.]

In my Father's house are many dwelling places.

Saying attributed to Jesus of Nazareth ¹²

Leadbeater says that when the high frequency astral (magma) body has exhausted its attractions to one level, the greater part of its grosser particles (from the outer shell) will fall away, and it will find itself in affinity with a somewhat higher state of existence. Its specific gravity, as it were, is constantly decreasing. It steadily rises from the dense to the lighter strata, 'pausing only when it is exactly balanced for a time'¹³—in other words when it is in an 'equilibrium' position.

As particles are ejected from the magma body, the particle density and the total mass of the body falls. This allows the body to rise to a higher shell. The ejection rate and particle density may vary not only due to physical factors, such as the temperature and energy levels; but also due to psychokinetic factors. For example, a person who has a strong 'self-concept' would actually push the particles in the magma body closer together—increasing their density and pulling themselves down to a lower shell. Psychokinetic effects are evident even in our physical biomolecular body. It has been shown in scientific experiments that the temperature of our palms can be altered significantly just by imagining to be in a hotter or cooler place.

Locations

The actual physical location of the lowest frequency hells and heavens can be confirmed once our detection techniques become more refined — probably within this century. An average human being may spend many hundreds of years in the Earth's magmaspheres.

Although the magmaspheres interpenetrate, the shells within each

magmasphere generally do not. The shells are separated by sheaths and each sheath is rife with surface currents.

Shape of Magmaspheres

We noted that Earth's physical magnetosphere and plasmasphere takes on a 'tear-drop' shape—in other words, the side facing the Sun is blunt and the side facing away from the Sun has a long tail. This is due to the pressure from the Sun's solar wind. Earth's magmaspheres may similarly not be perfect but elongated spheres; and more malleable in shape than the physical Earth.

Nature of Light in Super Magmaspheres

The environments interpenetrating the physical Earth are basically magnetised plasma environments, with beings in the form of balls of light whizzing about! Although it may seem strange and frightening now, there is metaphysical evidence that there are orientation programs and that everyone generally gets used to it after awhile.

Raymond Moody reports in his best-selling book 'Life after Life' that his analysis of near-death experiences reveals that once through the 'tunnel,' the person usually meets beings of light which are not composed of ordinary light but super light. Near-death experiencers say 'they glow with a beautiful and intense luminescence that seems to permeate everything.'¹⁴

Moody says near-death experiencers describe the light during their experiences as being much brighter than anything experienced on Earth. But still, despite its brilliant intensity, it doesn't hurt the eyes.¹⁵

Physicist John Cramer says that our universe could, without our knowledge, be superimposed on another 'shadow' universe which has *its own light* and matter and even stars and planets and animal life which do not interact with ours except through their common gravitational attraction.¹⁶ Physicist John Schwarz (one of the co-founders of String theory) says that shadow matter would be essentially invisible to us because it wouldn't interact with the kind of light that we are able to detect.¹⁷ Tom Siegfried says that physicists slowly began to realise that extra dimensions are invisible because our 'light can't go there.' We wouldn't be able to see the dimensions even if they were big.¹⁸

Many near-death experiencers and persons undergoing mystical visions have confirmed that the light is different in these different universes.

Super Light

Dark-light or super-light is the counterpart of the light that we are familiar with—composed of super-photons. The existence of these types of subtle

light has been recorded in religious and metaphysical literature over the centuries. Hundreds of references to this unusual light can be found in literature relating to near-death experiences and mystical visions; in the Bible, other scriptures and Church records. Pope Benedict XIV admits to the miraculous nature of lights and rays mentioned in the lives of saints by declaring, 'There are hundreds of such examples to be found in our hagiographical records.'¹⁹ Each plane and sphere would have its own kind of light. The speed of each type of light particle may be different. It is postulated that the speed of light in each super universe is successively higher (relative to ours).

If that is so, then a photon in the higher frequency astral universe may, therefore, behave as a tachyon from the perspective of our universe. (Tachyons are particles that move faster than the speed of light in our physical universe.) Since the energy and frequency of these tachyons are well beyond anything that our scientific instruments can now measure; even Cerenkov radiation, which would normally be given out if we assumed a tachyon with the same energy as a standard photon, would not be generated. It would pass through our universe as dark matter particles would.

These magmaspheres are electromagnetic environments. The almost transparent magma ovoids in which beings in these environments reside in keep them protected from radiation and other electromagnetic intrusions.

CHAPTER 9

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Dynamics in Earth's Magmaspheres

Magneto-Hydrodynamics

The dynamics of magma bodies in the various magmaspheres can be explained largely by (classical) magneto-hydrodynamics. For a more accurate analysis a 'kinetic model' rather than a 'fluid-model' based on magnetohydrodyamics should be used. However, because magneto-hydrodynamics is much simpler and reflects many of the important properties of plasma dynamics, it often gives accurate qualitative descriptions. The term 'classical' means that, generally, we do not need to invoke quantum mechanics to explain their behavior—although quantum processes can be identified in various situations. *Quantum metaphysics*, which studies the behavior of conscious particles (including those which inhabit magma bodies) and quantum objects, will not be dealt with in this book in any detailed way.

Magneto-hydrodynamics (or MHD for short) studies the dynamics of electrically conducting fluids. Examples of such fluids include plasmas and liquid metals. The word magneto-hydrodynamics is derived from 'magneto' meaning magnetic field, 'hydro' meaning fluid; and 'dynamics' meaning movement. The set of equations which describe MHD are a combination of the Navier-Stokes equations of fluid dynamics and Maxwell's equations of electromagnetism.

Movement of Particles within a Plasma Crystal

In an imaginary 2d space, when a dust particle is injected into a plasma, it drifts downward, under the influence of gravity, and acquires a surface negative charge. Eventually, the downward drift is counterbalanced by the electric field above the lower electrode in the plasma crystal and the particle levitates.

In real 3d space, the downward drift of the particles is more complicated. When downward falling particles reach the plasma sheath boundary, they oscillate at a frequency characterised by the charge on the particle and the structure of the plasma sheath. The particles then slowly begin to get compacted.

Dynamics in Magmaspheres

Beings that have magma (magnetic plasma) bodies are subject to electromagnetic forces within the magmaspheres. From a physical perspective, the shells to which these beings levitate or gravitate into are based on their equilibrium positions in the magmasphere — which is determined by the properties of the magma in their magma bodies (density, temperature, charge and magnetic polarity) relative to the properties of the magma in the shell. The properties of the magma body are determined not only by the lifestyle of the individual but the association of the magma body with a dense physical body which tends to compactify the magma. The properties of the magma body contribute, as a whole, to the composite frequency or what metaphysicists have called the 'vibratory signature' of the magma body.

People don't go to heaven because of their good deeds. After death, people gravitate into groups according to the rate of their soul's vibration. Our soul naturally fits in the level of heaven we have developed within us.

Kevin Williams

Electromagnetic Highways within Shells

Within the shells, the motion of super magma bodies may be directed by Birkeland currents which serve as 'electromagnetic highways' in the plasma. In other words, when an astral body 'flies off' to another location, it moves along Birkeland currents — although not consciously doing so. It is analogous to the passage of a charged particle being directed by a magnetic field line or an electric train being guided by a single rail using magnetic levitation. By changing electrical and magnetic polarities and the strength and distribution of charges in the body through an act of will, electromagnetic super magma bodies are able to travel from one location to another, at the speed of light applicable to the super universe. In this way, it would appear to the traveller that he is moving by thought alone.¹ It should not be surprising that such movement can be effected through an act of will. In fact, every time you stand, sit or walk, your physical biomolecular body is responding to your wishes.

On the astral plane there are many currents which tend to carry about persons who are lacking in will, and even those who have will but do not know how to use it.

Charles Leadbeater²

Electrical Activities in the Magmasphere

Because of its free electrons, plasma is a good conductor of electricity, much better than copper, silver, or gold. Lightning offers one of the most dramatic manifestations of this property. As a thunderstorm develops, negative charges accumulate along the cloud base, causing positive charges to build up on the ground below. The resulting electrical field between the concentrations becomes so strong that it ionises the air. This creates a conducting path of free electrons and ions i.e. a plasma through which the lightning discharges. This discharge can also act as an erratic electromagnetic highway which cuts across shells.

I beheld Satan as lightning fall from heaven.

Saying attributed to Jesus (of Nazareth)³

Chapter 10

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Space and Time in Magmaspheres

It seems likely that the universe is an eternal, self-reproducing entity divided into many mini-universes, with low-energy physics and perhaps even the dimensionality of space differing from one to the other.

Andre Linde, Physicist

M Theory – A Magical Mystery Tour

In the last few years physicists have realised that different Superstring theories are in fact limiting cases of a single, more powerful theory—know as 'M Theory.' According to M Theory, we live in a higher dimensional universe but are trapped within a lower dimensional 'membrane' (or 'brane,' for short). As a result, we are blocked-off from the rest of the multiverse. We interact with the rest of the multiverse mainly through the combined gravitational fields of all the universes in the multiverse.¹

Physicists have spent a lot of time in the twentieth century trying to 'compactify' and 'curl-up' extra dimensions that we do not experience ever since the first powerful theory with more than three space dimensions was

put forward early in the twentieth century—the Kaluza-Klein theory. Now, under M-theory, we are finally told by scientists that the reason why we do not perceive these dimensions is that we simply cannot see or measure them using our current scientific instruments. We simply do not interact with these extra dimensions.

Perhaps, we are coming closer to a plausible explanation—an explanation which has been repeated many times by metaphysicists in the past. Many physicists generally take the view that the mathematics and physics has to be modified to conform to our experience. They rarely say that it is our experience that is limited by our sensory and scientific apparatus. Nevertheless, a change in mindset is beginning to take place.

Earth's 3d-double is in the physical-etheric universe, recognised by metaphysicists. Under M Theory, it could be classified as a '3-brane universe' which is 'less than a millimetre from our "home" brane.' Metaphysicist Leadbeater described in the early 1900s of an astral universe which had 4 space dimensions. He said in 1904 that there are many characteristics of the astral world which agree with remarkable exactitude with a world of four (space) dimensions. He also said around 1910, 'Our minds can grasp three (space) dimensions only, whereas there are four (space) dimensions on the astral plane, and five on the mental plane.'² He also gave many details about these branes (or 'planes' in the metaphysical literature) in his various books. In terms of mainstream physics, under M theory, we would say that the spacetime signature of the astral brane is 4s-1t (i.e. 4 space and 1 time dimensions). In other words it is an 'astral 4brane.' Leadbeater's 'mental brane' is 5s-1t. In other words, it is a 'mental 5-brane.' We can observe the effects of gravitational fields emanating from the astral and mental universe in our universe. They shape and structure our universe—an observation often noted in the metaphysical literature.

According to M theory the standard particles, of which we are familiar, are *confined* to our universe. All ordinary matter and energy (including photons or light) must 'stick' to the surface of our 3-brane universe—like strings that need to be anchored to a surface. The extra dimensions in the multiverse could not be experienced because ordinary matter and light were not allowed to go there (because they are confined to our home brane). Our light, radio waves, magnetism, quarks, electrons, all operate only on the 3-brane. Gravity, though, can propagate as loops of string that don't need a surface to stick to. So gravity can explore the extra-dimensional space.³ Dark matter is the super matter of other branes that are invisible to most of us.

This observation accords well with metaphysical evidence. The super etheric, astral and higher energy particles are known to be *confined*

to particular universes in the metaphysical literature. Nevertheless, it has been acknowledged by metaphysicists that astral matter, just like physical matter, is subject to gravitation—in other words the astral universe shares the same gravitational field as the physical. It is also in accordance with metaphysical evidence that we cannot experience extra dimensions unless we use a body composed of the relevant super particles and exercise the sensory systems associated with that body.

Spectrum of Magmaspheres

No physical theory we know of dictates that there should be only three dimensions of space. Although we can't see them with our eyes or feel them with our fingertips, additional dimensions of space are a logical possibility. Do I believe in extra dimensions? I confess I do.

> Lisa Randall, Leading M-Theorist, 2005⁴

There is a spectrum of magmaspheres of increasing frequency which increase by one spatial dimension—perhaps to even ten spatial dimensions (consistent with M Theory). As we move out of the physical sphere, we are therefore moving into superspace.

At the farthest reaches of the highest frequency and dimensional universe, just like at the Planck limits, spacetime and location becomes meaningless. The 'edge' of that universe, just like the Planck limits, represents the transition from symmetry (of the void) to the asymmetry (of manifested universes). Here the arrow of time first assumes a direction. So while the physical-etheric, astral and other lower energy magmaspheres of the Earth can still be linked with the physical Earth, the higher dimensional magmaspheres funnels out to a void where space and time have no meaning.

The trajectory of the individual into this void recapitulates the trajectory of the multiverse itself, but in reverse direction. All the universes in the multiverse manifested from the void, spiraling downwards from a multi-dimensional universe to the current 3d universe that we are familiar with. As our bodies become more subtle we slowly disappear from the manifested multiverse—like a fading mirage. The majority, however, it seems, prefer to dive down again to lower universes to experience the game we call 'existence.'

Although the astral and other higher dimensional universes have more space dimensions, many human beings, with brains that have been accustomed to 3d perception over thousands of years or more, still perceive them as three-dimensional.

It was noted by Piaget that even babies have two-dimensional perception until after about 18 months. Hence, the ability to see in more than 3 spatial dimensions must be learnt by a person with an astral body which has recently disassociated itself from the 3d world of physical bodies.

In fact, it is interesting to note, in this connection, that Barbara Brennan illustrates all the higher energy subtle bodies as three-dimensional in her book 'Hands of Light,' although she clearly states in her writings that these bodies are multi-dimensional. One would expect, therefore, that an average human being who is thrust into the astral world and other higher dimensional worlds would for some time perceive only higher-energy 3d worlds.

Increase in the Measure of Time

The measure of time increases as we move up to higher dimensional magmaspheres. What is perceived as the 'present' occupies a longer period than in the physical universe. A year in the physical universe may be perceived in a minute in a super universe. Furthermore, the minute in the super universe may encompass both the future and the past of the lower universe. In other words, time—instead of being point-like in our universe, encompasses more and more events and becomes space-like as we move up the energy ladder. For example, it may take you an hour to walk an 8 kilometre stretch of road. Time passes slowly. On the other hand, if you are looking at a man walking the same stretch of road from the top floor of a tall building you can view all points on the road—covering the entire space of the journey, in a second's view. Furthermore, you will be able to view where the man walked from and where he will be walking to. As we move 'up' super universes, we will be looking 'down' from a higher vantage point.

In 1899 Leadbeater reported that on a very high plane the past, present and future are all existing simultaneously. He gives the analogy of a passenger in a train. The passenger, if he could never leave the train nor alter its pace, would probably consider the passing landscapes as necessarily successive and would be unable to conceive their coexistence (through direct perception).⁵ Leadbeater apparently anticipated Einstein's 'block universe' concept and the relativity of simultaneity through his direct experience with super universes.

Under Einstein's (Special) Theory—published in 1905, as one moved nearer to the speed of light, time dilates and space contracts to maintain the constant speed of light (in a vacuum). Our journey into higher frequency magmaspheres, interpenetrating planet Earth, will be analogous to travelling closer and closer to the speed of light in our universe.

Also, since the number of space dimensions increases as we move up super universes but the time dimension does not, there would also appear to be a dilution in the effect of time on our consciousness.

Spectrum of Manifestation

A summary of the Earth spheres, coupled with the physical Earth, could be presented as follows:

Frequency	Dimensionality	Popular Metaphysical Terms	Dominant Nature
Low Frequency	3d-Physical sphere	Physical	Classical
Middle Frequency	3d-Double Magmasphere	Etheric	
High Frequency	4d-Magmasphere 5d-Magmasphere 6d-Magmasphere 7d-Magmasphere	Astral Higher Astral Mental Higher Mental	Semi- Classical
Very High Frequency	8d-Near-Void Sphere 9d-Near-Void Sphere 10d-Near-Void Sphere	Causal Causal Causal	Quantum

CHAPTER 11

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Earth's 3d-Double Magmasphere

The Physical-Etheric Magmasphere

Blake Levitt, in his book, 'Electromagnetic Fields' notes that the natural background voltage increases with altitude. Between the lowest layers of the ionosphere and the Earth's surface, there are about 360,000 volts; from the top of the Empire State Building to the sidewalks at its base, there are approximately 40,000 volts, and between the head of a six-foot man and the sidewalk, approximately 200 volts. At the Earth's surface, the voltage is approximately 100. This sounds alarming, but in fact hardly any shock potential exists because there is (apparently) no current; it is just background voltage and static DC fields.¹

Scientists know very little about this huge reservoir of natural power—how it functions or what governs it. Just like the pattern of voltage gradients over the biomolecular body studied by Robert Becker, Harold Burr and others, the pattern of voltage gradients over our planet is difficult to explain—based on current scientific theories. Perhaps, just like the pervasive magnetic fields in space, they are the result of dark matter in a plasma state—specifically the lower energy 3d-double of the Earth (which may be described as the 'lower etheric double' in the metaphysical literature).

The Earth also has a higher physical-etheric body which is the 3ddouble magmasphere—with its meridians (filaments and Birkeland currents), chakras (or vortexes) and main vertical power current—features which it shares with our magma bodies and described in more detail in the author's book 'Our Invisible Bodies.'²

The Earth's 3d-double magmasphere probably has a 'tear-drop' shape (like the physical Earth's magnetosphere). As the name implies, this 3d etheric magmasphere is a physical universe—it has 3 space dimensions and 1 time dimension—just like its physical-dense counterpart—our visible Earth. However, it has a higher energy level, reversed charge and parity (i.e. it is spatially reversed – being a 'right-handed' universe as opposed to our 'left-handed' universe). Matter and force particles in our universe are reflected as (more massive) force and matter particles, respectively, in the higher energy 3d-double universe. In other words, the 3d-double is like a mirror-image of the physical-dense Earth that is ordinarily visible to us. The spatial relationship between the two 'Earths' can be explained through an analogy: Imagine a figure on the left page of a book and its mirror image on the right page; then fold the two pages so that they come close to each other. Under M Theory, the analogy would be of two flat 3-branes folded over each other and less than a millimetre apart. Earth's 3d-double can be considered a planet (in its own right) in a physical 3-brane, which is gravitationally-coupled to our ordinarily visible physical Earth but possesses a rotational speed and gravitational force that deviates from the physical Earth. Like the other magmaspheres that will be discussed, we can also assume it has concentric shells-with electrified sheaths separating one shell from another.

Filamentary (Birkeland) Currents on Earth

Shells, electrified sheaths and filamentary currents are signature structures of magnetic plasma. Filamentary currents are present not only in space but in our magma bodies and also within and enveloping the Earth. Each shell of the 3d magmasphere is bounded by double-layers, i.e. electrified sheaths rife with surface currents.

These filaments are what have been called 'ley lines' which are alluded to in Chinese feng-shui studies. (In the subtle bodies of human beings and animals they are considered 'meridians' in Chinese acupuncture.) When these filaments cross they pinch, collapsing to form nodes, which give rise to vortexes within our planet. Depending on the direction of spin, vortexes can either absorb or emit energy. Vortexes which emit energy are probably the ones that have been identified as 'holy' or 'sacred' sites by various spiritual traditions. Ley lines, or leys, connect ancient holy sites—just as filaments connect vortexes. Ley lines are in fact 'Birkeland currents' (as described in Chapter 5, 'Our Magnetic Plasma Universe'). Birkeland currents imply *electric circuits*, that follow Kirchhoff's circuit laws. Circuits have a resistance (which opposes the passage of electric current) and inductance (or the amount of magnetic flux for a given current) and the behaviour of the plasma depends on the entire circuit. Such circuits also store inductive energy, and should the circuit be disrupted, for example, by a plasma instability, the inductive energy will be released in the plasma. Chinese acupuncture often describes the various meridians in subtle bodies as 'microcosmic orbits' or circuits.

After Death Scenario in the 3D-Double Magmasphere

Usually, during or after the death of the physical-biomolecular body, the physical-etheric bodies also die; and the astral body is then freed, to find itself in the 4d astral magmasphere. However, when a person is too terrified to let go, is unaware that he's physical-biomolecular body has died or has some emotional attachment or some psychological issues to resolve; the person may hold on to his physical-etheric body—which effectively holds him back from his entry into the next universe and magmasphere.

The period between the first death (the death of the physical-biomolecular body) and the second death (the death, i.e. the dissolution and contraction, of the physical-etheric body) is often classified as the 'bardo period' or an intermediate state between two stable states.

The bardo period, according to traditional Tibetan teachings, lasts for about 49 days (a duration similar to the period of time that lapsed between the resurrection of Jesus (of Nazareth) to his recorded ascension into heaven). However, even the 14th Dalai Lama himself has accepted that it may last for even one year.³ Emanuel Swedenborg says that people may remain in this intermediate 'world of spirits' (equivalent to the bardo period) for more than 30 years.⁴

There is actually another bardo period after the dissolution and contraction of the physical-etheric body into its nucleus. Experiences recorded during past-life regression therapy suggest that the nucleus can exist independently for a long period of time—before it is finally absorbed by the next higher energy body—usually the astral body.

CHAPTER 12

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Earth's 4d Magmasphere

The 4d magmasphere is usually described as the 'astral world' by meta-physicists. This 4d magmasphere that most human beings would find themselves in after the death of their physical bodies is not in some far-out galaxy — it interpenetrates and shares the same gravitational field as the physical Earth. It can be considered a planet, in its own right, in the (astral) 4-brane which has its own rotational speed and gravitational force. According to Leadbeater the astral magmasphere surrounding and interpenetrating the physical Earth extends to a little less than the average distance of the Moon to the Earth ¹, which is approximately 385,000 km. The Earth's diameter is not more than 13,000 km. The average distance between the Earth and Moon is, therefore, approximately 30 times the Earth's diameter. In other words, the 3d-correlate of the astral magmasphere is an enormous elongated-sphere which is 216,000 times larger than the physical Earth, in terms of volume. If you were holding a basketball on the tip of your index finger; the astral world would represent the basketball and the tip of your index finger would represent the physical Earth.

Within the lower part of this massive sphere ('the local area') are located all our more popular heavens and hells. According to Paramahansa Yogananda, 'the entire physical creation hangs like a *little* solid basket under the *huge* luminous balloon of the astral sphere.'² Plutarch, the Greek philosopher who lived in the first century A.D., wrote 'Every soul is ordained to wander between incarnations in the region between the Moon and Earth.'

While each magmasphere interpenetrates the other, lower energy magmaspheres (from the 5d magmasphere, to be discussed in the next Chapter, and below) are not extensive enough to communicate or have links with the corresponding spheres of any other planet.³

It is important to note that spacetime is modified dramatically when moving from one magmasphere to another. Spacetime begins to peter out or become irrelevant at the 'edge' of the highest energy magmaspheres — such that the idea of the location of an object becomes meaningless.

Rotation of the 4D Magmasphere

Since the 4d magmasphere is gravitationally coupled with the physical Earth, it too would rotate. However, since it is a much larger sphere there would be a slowing down of the rotational speed, making a day in the astral magmasphere longer than 24 hours. This is confirmed by Yogananda who has said that the astral day and night are longer than those of (physical) Earth. The astral year, though, would be the same as the physical year in terms of total duration. However, the number of days in an astral year would be much less. Since, astral objects emit light; even the nights would be filled with light in the astral magmasphere.

The actual locations of persons (who have left their physical bodies permanently) can be identified approximately — by taking into account that many inhabitants of the astral magmasphere live within shells around the Earth which extends many kilometres above our heads and below the crust of the Earth. As people of the same religion tend to keep together after death, just as they do during life, there is a kind of network of heavens belonging to people of the same religion but over different countries.⁴

A predominantly Catholic country would have a heavily populated Catholic heaven several kilometres above its surface but at a different longitude. There is a longitude and time displacement due to the different rotational speeds of the physical and astral spheres. Similarly, a predominantly Muslim country would have a heavily populated Islamic heaven several kilometres above its surface, but with some difference in the longitude.

Scientists tell us Earth's (physical) inner solid core actually rotates or spins at a different rate from the rest of the Earth. Similarly, the rotation of the higher shells in the astral magmasphere and higher energy magmas-pheres could be considerably slower than the lower shells of the astral mag-maspheres — giving the impression that there is no day or night in these higher frequency regions.

The Moon and the Earth

At certain times when the Moon does come closer to Earth, there is an overlap between the highest shells in the 4d (astral) magmaspheres of the Earth and the Moon. When the Moon moves away, there is less overlap.

It is reasonable to assume that the physical-etheric, astral and higher energy magmaspheres of the Moon and Earth would mutually gravitate to the centre of mass of the Earth-Moon system—causing high tides in the Earth's magmaspheres. There would therefore be an 'ebb and flow' of etheric, astral and higher energy matter. Our etheric, astral and higher energy bodies would similarly feel the ebb and flow—causing changes in our emotional and mental states through interactions with the biochemical fields in our physical-biomolecular body. The effects would be more pronounced every time the Moon's orbit brought it closer to the Earth or when the Moon was aligned between the Sun and the Earth.

Earth's Astral Body

According to Leadbeater, what we call the astral magmasphere may also be considered the astral body of the Earth. It exists all around us, and interpenetrates the solid physical Earth beneath our feet and extends far away above our heads—a huge ball of astral matter with the physical Earth in the middle of it, much as the physical body of a man exists within the ovoid form which is filled with astral matter.⁵

Immediately after the death of the physical bodies, most human beings (within the gravitational field of the Earth) would find themselves still on Earth—but in the higher frequency 4d (astral) magmasphere of the Earth, not the physical Earth. Immediately after the death of all the physical bodies, a human being's location in the astral magmasphere can be estimated. However, over time, their equilibrium positions in the 4d (astral) magmasphere changes as the density, net electric charge and magnetic polarity of their super magma bodies change. They would then be more difficult to locate from our location (unless we have accurate information on how they evolved).

After the initial phases, some people tend to hover around their Earthly homes, in order to keep in touch with their friends of the physical life and the places which they know; but the majority of beings who have recently lost their physical bodies spend most of their lives comparatively near to the surface of the physical Earth, in the 4d (astral) magmasphere. However, as they withdraw into themselves and their locus of awareness shifts to higher frequency shells, they find it easier and more natural than before to soar farther away from the Earth's surface into less populated regions where there are less disturbances.⁶

According to Paramahansa Yogananda, the recently physically disembodied being arrives in an astral family through invitation, drawn by similar mental and spiritual tendencies.⁷ From a physical perspective, we would explain that an astral body will gravitate or levitate to shells with similar properties to the magma in the magma body of the individual.

People who arrive from the physical world are put in connection either with a particular community in heaven or with a particular community in hell; but this applies only to their more inward elements.

> Emanuel Swedenborg, Heaven and Hell⁸

The astral universe has a propensity to manifest and objectify the emotions and thoughts of an individual. It has four space dimensions and one time dimension. The Kaluza-Klein theory (in mathematical physics) has the same spacetime signature. The Kaluza-Klein theory, to some extent, is therefore a mathematical model of the astral universe. A large part of the descriptions below (and the immediately following chapters) of the various magmaspheres and shells are compiled from writings by Charles Leadbeater (The Inner Life, 1910-11), the compilations of Arthur Powell (The Astral Body, 1927; The Mental Body, 1927 and The Causal Body, 1928) and Paramahansa Yogananda (The Autobiography of a Yogi, 1946), which has been incorporated in the model proposed in this book.

Lower 4d Magmasphere

Shell #7—Hell in Earth's interior—the 'Hellosphere' Compaction due to Association with the Physical Bodies

Leadbeater says that during physical life a person is constantly influencing the building of matter into his astral body. He affects it directly by the passions, emotions and desires which he allows to hold sway over him; he affects it indirectly by the action upon it of his thoughts from above, and all of the details of his physical life from below. He says, 'If he is so stupid to build himself a coarse and gross astral vehicle, habituated to responding only to the lower vibrations of the plane [or sphere; but he also probably means subplane or shell] he will find himself after death bound to the plane during the long and slow process of the body's disintegration.⁹ On the other hand, if he gives himself a vehicle mainly composed of finer [i.e. less dense] material, he will have very much less post-mortem trouble and discomfort, and his evolution will proceed much more rapidly and easily.' Astral (or dark) matter has a high degree of affinity to the physical body. As Leadbeater has pointed out, because of this, 99% of astral matter is concentrated within the periphery of the physical body. This means that the very presence of the physical body forces the astral matter to be more *compacted* and therefore become denser. The lifestyle of the individual can increase or decrease this density to various degrees. For example, a person practicing intense meditation and prayer generates much heat (as recounted in the relevant literature¹¹) which may be able to expand the astral body and lower its density. However, for the average person, the natural compacting effect of the physical body will override any counteracting effects. This gives rise to certain interesting dynamics.

Jesus was said to have descended into hell after his death, before he ascended to heaven some weeks later.¹⁰ In the 'Myth of Er' Plato recounted the near-death experience of 'Er.' The hero Er died, but before his funeral his soul left his body to visit the underworld and then the heavens.

This appears to be a common route taken by 'souls' in the relevant literature and is the natural effect of magneto-hydrodynamics—with the magma body (compacted by its association with the physical body) trying to find its point of equilibrium in the magmasphere.

Sheath-Formation on Release from the Physical Bodies

Once the astral body is freed from the physical body, it is released into the ionised environment of the sixth shell in the 4d magmasphere (which is coincident with the surface or crust of the physical Earth). If the astral body is composed of plasma which has different properties from the surrounding plasma, a sheath will form immediately around it. This blocks-off communications with the sixth astral shell.

Because of its high density, the heavy compacted magma body sooner or later sinks or gravitates into what is popularly called 'hell' i.e. the seventh shell (below the surface or crust of the Earth), together with other astral matter of the same density, as a natural consequence of magneto-hydrodynamics. Here (undesirable) communications become possible as there is no sheath separating the astral body from its environment of similar density.

The negative visionary finds himself associated with a body that seems to grow progressively more dense, more tightly packed...many of the punishments described in the various accounts of hell are punishments of pressure and constriction.

Aldous Huxley, Heaven and Hell¹¹ *Heavy* astral karma must be redeemed by such beings before they can achieve an unbroken stay in the causal thought-world. [Emphasis added.]

Paramahansa Yogananda¹²

With the high temperatures in the seventh shell of the 4d (astral) magmasphere, however, the particle density falls over time and the magma body again rises to the sixth astral shell where communications now becomes possible. Further falls in particle density will allow it to levitate to the higher shells. However, this may not happen if the magma body is so dense that it sinks to the lowest depths of the seventh shell where the pressures are extremely high (as discussed below).

Unpleasant Region

The pressure imposed by the dark astral matter above the region is enormous causing the matter to be compacted and compressed in the seventh 'shell.' This dense region is extremely unpleasant. Movement is restricted and the environment is claustrophobic.

The pressure at the centre of the Earth is around 14.2 million times [the] atmospheric pressure. Not a nice place for a visit, but quite mild compared to the centre of a star.

Nich Hoffman

In this 'shell' the density is so high that it is indescribably loathsome to the liberated astral body. The seventh or lowest astral 'shell' penetrates some distance into the interior of the Earth, so entities living in it may find themselves actually below the crust of the Earth. This shell is composed of high density astral matter which has been compressed by the high pressures imposed by the astral matter in the *larger* astral magmasphere (compared to the physical sphere).

Moving through such an environment would be like pushing your way through a black, hyperviscous fluid (according to Leadbeater), similar to the highly viscous mantle in the physical Earth, while the inhabitants and the influences encountered there are also usually exceedingly undesirable.

One of the characteristics of 'hell' in popular culture is a lack of freedom and the sensation of being chained. This sensation is caused by the very high pressures experienced in the central regions of the astral Earth which impede movement. The outer core of the physical Earth is molten and very hot due to extreme physical pressures. The astral Earth is subject to the same type of pressures—giving rise perhaps to hot dense kundalini. The extreme heat and the experience of being burned also features in popular conceptions of hell. So, there is reason to believe that the most common type of 'hot' hell does literally exist below the Earth's crust.

The total surface area of Earth is approximately 510 million square kilometres. Since we know that the distance from the surface of the Earth to its centre is approximately 6,380 km (3,965 mi), this hell (which is below the Earth's crust) would occupy a volume of space many multiples of the surface area. It could therefore hold a population of inhabitants many multiples of what Earth's surface could hold.

However, a question remains, what happens if a person's magma body continues to contract because of the high pressures? What will happen in the extreme limit? From a non-quantum, classical perspective, some metaphysicists conclude that the body will become a rock, a stone—a solid material body without any consciousness. However, the answer may be a surprising, counter-intuitive one.

Super Dense Plasma

In order to understand what happens, we will look at how dense plasma behaves in the physical world. Warm, dense plasma, which may predominate in some layers of the Sun, the cores of large planets, and perhaps the Earth is denser than water and far denser than other types of plasma. Despite the name 'warm,' it can be as hot as the more common types of plasma.

It lurks in the dense interior of Jupiter and boils deep within the Sun. Warm dense plasma is in fact common in the universe but is very difficult to manufacture on Earth's surface. According to Pravesh Patel of the Lawrence Livermore National Laboratory in California, warm dense plasma is a mysterious phase of matter and may have complex behaviors.¹³ Although the density approaches or exceeds that of solid matter, the media behaves as a freely-flowing fluid.

The Quantum Turnaround

Plasmas are generally considered classical entities and their behavior can be described by classical magneto-hydrodynamics. Hence, from a non-quantum, classical perspective we would expect the particles to be more closely packed until they become super dense solids. However, when particles in plasma pack so closely that their wavefunctions strongly overlap, a quantum mechanical model has to be used by scientists to explain its behavior. The media resembles a quantal 'fluid.' In this case, *quantum* magneto-hydrody-namics will have to be applied to study its behavior. Quantum effects become important as soon as the de-Broglie wavelength [analogous to the wavefunction] becomes larger than the distance between the particles.

Zijun Yan, Physicist¹⁴

Hence, the surprising conclusion is that individuals who have a strong association with the physical body and a heightened sense of a self-concept will be able, after intense suffering and contraction, to become wave-like and quantum tunnel-out into other universes!

One of the conclusions that may be uncomfortable to many is that the quantum world (which is a prelude to the void) can be reached by both extremely unselfish and extremely selfish beings (those with a strong self-concept). However, the experience of the void, although extremely blissful to the unselfish, may be extremely distressing to the selfish.

In fact, a less common type of near-death experience includes an acute awareness of nonexistence or of being completely alone forever in an absolute void. Sometimes the person receives a totally convincing message that the real world, including them, never really existed. While this message may not be distressing to someone who is not disillusioned by the notion of a self, existing independently of the universe; it comes as a shock to those who think that the universe revolved around them. The void will appear to be an even worst and bewildering hell to these beings.

As the left brain is generally thought to harbour the self-concept and processes information based on a model which posits the self in the centre; the journey to hell and a distressing void may be prevalent in people who are extremely left-brain dominant.

Shell #6 to #4—Private Worlds

The sixth shell is partially coincident with the surface of the Earth. Shells 6, 5 and 4 have for their background the physical world with which we are familiar. Life on shell 6 is like ordinary physical life, minus the physical body and its necessities. According to Leadbeater, the astral counterparts of solid physical objects—the floor, walls and furniture of a room are all of the lowest type of astral matter, and consequently the new arrivals to this shell usually see these counterparts vividly. There is, therefore, no necessity for the inhabitants of the sixth astral shell to create astral objects. Most of the physical objects already have their counterparts. They also find themselves surrounded by the astral counterparts of physically existing mountains, trees and lakes, and consequently do not generate any scenery for themselves.¹⁵

Shells 5 and 4 are less dense and more withdrawn from the lower world

and its interests. Earthly associations become less important and the beings there tend more and more to mould their surroundings into agreement with their more persistent thoughts. These shells also contain many cities. According to Michael Talbot, near-death experiencers and others describe metropolises with remarkable consistency. The most notable feature of these great cities is that they are brilliantly luminous. Swedenborg said that it was a place of 'staggering architectural design, so beautiful that you would say this is the home and the source of art itself.'¹⁶

Higher 4d Magmasphere

Shells #3 to #2—Religious Communities

Leadbeater says that the third astral shell extends many kilometres up into the atmosphere. This shell is further removed from the physical world and correspondingly less matter-like and more mind-like. Magma beings lose sight of the Earth (i.e. the surface of the Earth) and they are usually deeply self-absorbed. This shell is probably coincident with the physical Earth's exosphere.

Carl Jung's near-death experience probably occurred in these shells. In a hospital in Switzerland in 1944, the world-renowned psychiatrist had a heart attack, then a near-death experience. Here's his description: 'It seemed to me that I was high up in space. Far below I saw the globe of the Earth, bathed in a gloriously blue light. I saw the deep blue sea and the continents. Far below my feet lay Ceylon [now Sri Lanka], and in the distance ahead of me the subcontinent of India. My field of vision did not include the whole Earth, but its global shape was plainly distinguishable and its outlines shone with a silvery gleam through that wonderful blue light. In many places the globe seemed colored, or spotted dark green like oxidised silver.

Far away to the left lay a broad expanse—the reddish-yellow desert of Arabia; it was as though the silver of the earth had there assumed a reddish-gold hue. Then came the Red Sea, and far, far back—as if in the upper left of a map—I could just make out a bit of the Mediterranean. My gaze was directed chiefly toward that. Everything else appeared indistinct. I could also see the snow-covered Himalayas, but in that direction it was foggy or cloudy. I did not look to the right at all. I knew that I was on the point of departing from the Earth. Later I discovered how high in space one would have to be to have so extensive a view—approximately a thousand miles! The sight of the earth from this height was the most glorious thing I had ever seen.

After contemplating it for a while, I turned around. I had been standing with my back to the Indian Ocean, as it were, and my face to the north. Then it seemed to me that I made a turn to the south. Something new entered my field of vision. A short distance away I saw in space a tremendous dark block of stone, like a meteorite. It was about the size of my house, or even bigger. It was floating in space, and I myself was floating in space.'

1,610 km (or 1,000 mi) is well above the Earth's atmosphere (which ends only about a 100 kilometres from the surface of the Earth) and part of the exosphere. But here again, it shows that the astral magmasphere extends beyond the physical Earth. The second and third shells are therefore very likely well above the Earth's atmosphere. To a large extent, the inhabitants of these shells create their own surroundings which are sufficiently objective to be perceptible to other entities. They live in imaginary cities of their own, partly creating them entirely of their own thoughts, and partly inheriting and adding to the structures created by their predecessors.¹⁷

According to Leadbeater, beings of these shells surround themselves with landscapes of their own construction, though some avoid that trouble by accepting ready-made landscapes constructed by others. They construct for themselves weird scenes described in various scriptures. These are mostly clumsy and unimaginative attempts to reproduce ideas such as jewels growing upon trees, seas of glass mingled with fire, creatures with eyes all over the surface of their bodies; and deities with a hundred heads and arms to correspond. The second astral shell is the habitat of the selfish or unspiritual religious. Here he wears his golden crown and worships his own gross representation of the particular deity of his country and time.¹⁸

Robert Monroe calls shells 3 and 2 the 'Belief System Territories.' According to him, it is in these belief system territories that we find groups of people who have been attracted together by their shared beliefs during physical life. Here we will find the heavens of all the major religions which have been generated by human consciousness and by religious leaders preaching over centuries about their heavens that their devotees will arrive at after death.¹⁸

This level of consciousness or region of the afterlife is also known as the 'hollow heavens.' People, who arrive in these hollow heavens after death, live according to what has been taught to them during life, as to what to expect in heaven. A person may reside in one of these hollow heavens until a point arrives when they start to notice inconsistencies in the particular doctrines that their religion preaches. At this point, they can no longer resonate with those present in that particular hollow heaven and they will leave.¹⁹

Shell#1—Materialistic Intellectuals

The first astral shell is currently peopled with those who during their Earth-life have devoted themselves to materialistic but intellectual pursuits,

following them not for the sake of benefiting their fellow-men, but either from motives of selfish ambition or simply for the sake of intellectual exercise. Leadbeater laments, 'These beings may remain in this shell for many years, happy in working out their intellectual problems, but doing no good to any one, and making little progress on their way towards the next higher energy magmasphere.'²⁰

Seven Shells?

While most metaphysicists have claimed seven planes, rings or shells, we should not be surprised if there are more. For a long time, people thought that there were only seven planets; and that the Sun, Moon and Earth were perfect spheres. These geometrical idealisations and 'mystical' numbers were proved to be wrong—based on actual observations. On closer inspection and scientific scrutiny, the universe does not seem to conform to the 'perfect' images in our minds—especially the lower energy universes.

If we consider the enormity of the 4d astral magmasphere, we will appreciate the possibility that many experimental metaphysicists focused on only the planes, rings or shells within and near the Earth's atmosphere—largely within the Karman line or 100km from the Earth's surface. It may be that there could be up to eighteen shells within the astral magmasphere, but only the seven shells closer to the Earth have been mapped-out by experimental metaphysicists. In the final analysis, the number of shells may be arbitrary depending on how you define a shell and its properties.

CHAPTER 13

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Earth's 5d and Higher Energy Magmaspheres

The 5d and Higher Energy Magmasphere

Beyond the heaven visited, there was another heaven, one so brilliant and formless to perception that it appeared only as a 'streaming of light.'

Emanuel Swedenborg¹

According to Leadbeater, the next higher energy magmasphere of our Earth (after the 4d astral magmasphere) bears about the same proportion to the astral as the latter does to the physical. It is also a huge elongated-sphere, concentric with the other two, interpenetrating them both, but extending much further from the centre than does the (astral) 4d magmasphere. This 5d magmasphere is less dense than the 4d magmasphere and is even more responsive to thoughts and ideas, allowing visualisations to be generated and maintained easily. It is the function of denser matter in this universe to vibrate in response to the modes of the intellect, just as astral matter plays a similar role for desire and emotion.² It is a place where holographic thoughtforms takes the place of life-forms. Just like the astral magmasphere, it is usually divided into seven shells in the metaphysical literature.

In addition to the 5d magmasphere, there is reason to believe that there is a 6d and 7d magmasphere. All of these can be considered planets (in their own right) in the corresponding branes which are gravitationally coupled with the physical Earth—in accordance with the implications of M Theory. After the 7d magmasphere, the density of the next magmasphere is so low it almost merges with the void.

CHAPTER 14

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The Near-Void Spheres

The world that represents the region between the manifested multiverse and the void is usually called the 'causal world' in the wider metaphysical literature. It is at the 'edge' of this world that time becomes asymmetric i.e. it assumes a direction—and causality is born.

According to Paramahansa Yogananda, the causal world is indescribably subtle. In order to reach it, you would have to possess tremendous powers of concentration; so that if you closed your eyes and visualised the physical and astral Cosmos in all their vastness, you would realise that they exist only as ideas. If by this concentration you succeeded in converting or resolving all the previous universes with all their complexities into sheer ideas, you would then reach the causal world. There you will perceive everything as forms of consciousness, just as a man can close his eyes and realise that he exists, even though his body is invisible to his physical eyes and is present only as an idea.

Souls in the causal world recognise one another as *individualized points* of joyous Spirit.¹ Their thought-forms are the only objects that surround them like an electron cloud around the nucleus of an atom. In other words, their bodies are represented by very high energy super particles. These conscious super particles are the subject of a study which is described by the author as 'quantum metaphysics.'

Causal beings see the difference between their bodies and thoughts to be merely ideas. Both death and rebirth in the causal world are realised in thought only.² The causal universe resembles Plato's ideal mathematical universe. It is mind-like rather than matter-like—a quantum universe of 'ideas' rather than 'things.' This description fits a 'collapsed' quantum world—as opposed to a 'superposed' one (prior to the collapse of the wavefunction on measurement).

Because of non-locality, quantum jiggling under quantum interference conditions and other quantum properties to which we have alluded, we may say that the quantum world is *'subtle.'* [Emphasis added.]

David Bohm, Physicist³

Because of the very low particle density, the near-void spheres are not described as magmaspheres—they are so close to the void that there are only microscopic 'superparticle-bodies' in multi-dimensional environments. Here quantum metaphysics reigns. It is believed that there are three of these spheres—an 8d sphere, a 9d sphere and a 10d sphere.

Superstring theory implies a 10 dimensional world in which 6 dimensions are curled up in microscopic space. There is a tiny 'ball' of 6-dimensional space associated with every point in our 3d universe. In other words, as we go down the scale there is an increase in the number of dimensions. It so happens that these curled-up microscopic dimensions of Superstring theory are equivalent to the large dimensions in M Theory.

Escape from the Multiverse

Yogananda believes that man must undergo countless physical, astral and causal incarnations before emerging from the various bodies. Beings with unredeemed physical karma shuttle back and forth between the physical and astral worlds only. Those freed from all physical longings need no more to return to the gross vibrations of the (physical) Earth. 'Such beings have only their astral and causal karma to work out,' he says.⁴ The causal world is the next world after the astral world, based on Yogananda's model.

According to Yogananda (interpreting his master's words) many beings remain for thousands of years in the causal Cosmos. However, by deeper ecstasies they withdraw from the 'little causal body' (i.e. the super particle bodies) and put on the vastness of the causal Cosmos. In other words, when measurements cease, the particle wavefunction of the individual does not collapse and the individual naturally lapses into a superposed state in the void.

No longer does the 'being' experience its joy as an individualized wave of consciousness; it is now integrated with the luminous cosmic ocean. When

a being stops identifying itself with any personal body and escapes the multiverse forever it becomes the ineffable Ever-Existent. 'The soul realises it is Spirit in a region of light-less light, dark-less dark, thought-less thought'⁵ (i.e. a superposed 'region' of near-perfect symmetry). Subsequently, the 'individual' is nudged into the empty state of the void by natural forces.

[Fritz-Albert] Popp thought the zero point field forces a human being to be a candle. The healthiest body would have the lowest light and be closest to zero state, the most desirable state—the closest living things could get to nothingness.

Lynne McTaggart⁶

Recap

The density of magma bodies is highest in the physical universe and peters out to a very low density in the highest energy magmaspheres. Going further would mean having first, no (multi-particle) macroscopic body (instead you will revert to a super particle body—a quantum object); then the natural evolution into a superposed state and then a realisation of the symmetric void (initially a superposed void; then an empty void)—the goal of spiritual evolution in most (Eastern) religions. Many individuals, however, are pulled back by psychophysical forces to return again and again to the lower energy spheres.

This ideal 'personal' spiritual evolution or trajectory is in fact a natural process—just as the gradual universal dissolution of all the universes into the void is a natural process, brought about by natural forces. The individual can however, being endowed with consciousness, accelerate or retard the natural movement i.e. the 'Tao.' According to one commentator, 'The Tao itself does not judge, it does not condemn, it does not punish. Rather we ourselves, in our refusal to go along with its majestic flow, punish ourselves and cause ourselves all sorts of worries and problems.'

CHAPTER 15

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The Body and the Universe

Mathematical physicist, Bernard Carr points out, 'Our physical sensory systems reveal only a very limited aspect of reality.' He notes in his talk given at the Euro-PA Conference in November 2003, entitled 'Is there Space for Psi in Modern Physics':

...if our physical sensors only provide us with a 3-dimensional aspect of a universe which in reality has many more dimensions, and if physical objects occupy only a limited part of that higher dimensional space, what else can exist in this space?

Since the only non-physical entities in the universe of which we have any experience are mental ones, and since the existence of paranormal phenomena suggests that mental entities have to exist in some sort of space, it seems natural to relate this to Kaluza-Klein space. More precisely, I identify the universal structure with the higher dimensional 'bulk' of [the] Randall-Sundrum theory [which is now incorporated into M Theory].

Bernard Carr, Mathematical Physicist

Limitations of Our Sensory Apparatus

How many dimensions an observer experiences depends on his sensory apparatus. After millions of years, human beings have evolved color and three-dimensional perception. Would they evolve over the next few millions of years, four-dimensional perception? Is it impossible to imagine that there could be a small number of human beings now who have such fourdimensional perception intermittently or under special situations? Based on the arguments and evidence presented there is no reason to doubt that this could be the case.

We cannot visualise in our [current] brain the structure of a hypercube or any other 4-space structure. Perhaps with the right sort of training, or in some future age when the mind of man has evolved into a more powerful tool, one might learn to think in four spatial dimensions. Our inability to visualise 4-space structures such as the hypercube may be due solely to the fact that all our memories are derived from experiences in a 3-space world. With suitable training toys could a child learn to think in 4-space pictures? The question has been discussed by a number of mathematicians...

> Martin Gardner, Mathematician The Ambidextrous Universe

Perhaps, the limitations are not in the mathematical models (which suggest more dimensions) but in our everyday sensory apparatus (which is still undergoing evolutionary changes) and our measuring instruments — which, based on what we can perceive, are 3-dimensional objects made of standard particles. Somehow we are restricted by our current perceptual apparatus (i.e. sensory organs within our physical body composed of standard particles, together with our brains) to basically 3 space and 1 time dimensions.

These limitations have been reported by Leadbeater and many other metaphysicists many times. For us, he says, 'All matter of other and higher degrees is as if it did not exist. All dimensions beyond the three are also to us as though they did not exist.' Physically we see only three dimensions—hence, we see all objects and beings only partially. Our lack of perceptive power, however, does not in any way affect the objects themselves. In 1910 he explained:

We find ourselves in the midst of a vast universe built of matter of varying degrees of tenuity, which exists in a space of [let us suppose] seven dimensions. But we find ourselves in possession of a consciousness which is capable of appreciating only three of those dimensions, and only matter of certain degrees of tenuity.

> Charles Leadbeater, Metaphysicist, 1910¹

What Leadbeater pointed out in 1910 is exactly what leading theoretical physicists and mathematicians are concluding now:

We don't see extra dimensions directly, so everything should appear to us as if it is four-dimensional [including time]. Just as Flatlanders, who see only two spatial dimensions, could observe only two-dimensional disks when a three-dimensional sphere passed through their world, we can see only particles that look like they are in three spatial dimensions, even if those particles originated in higher-dimensional space. The Kaluza-Klein [or higher-dimensional] particles are indistinguishable from particles in a fundamentally four-dimensional world.

> Lisa Randall Leading M-Theorist, 2005 ²

There is no reason why a four-dimensional world could not exist... or for that matter a world of five dimensions or six or seven.

Martin Gardner, Mathematician The Ambidextrous Universe

We live in a multi-dimensional multiverse but we can only perceive three space dimensions and one time dimension. Hence, to us the universe appears to be three-dimensional and extended in time. The observer and the observed universe cannot be separated. The 3d universe that we are familiar is generated or framed by our perceptual apparatus at a point in time.

Plato, in his famous cave allegory, compared the appearances of our world with (dark) shadows that are thrown on a cave wall by real objects. We, as cave dwellers, cannot see the real objects because we cannot look in their direction—we do not have that freedom. (Incidentally, dimensions are regarded as 'degrees of freedom' by physicists.) We see only the 2d shadows cast by 'invisible' 3d bodies.

As such, most of the higher dimensional universe that we live in is generally concealed from us. However, objects in the larger universe warp the spacetime around us. They are, as it were, casting 'shadows' on our lowerdimensional universe. If we could see through the eyes of our higher energy bodies 'dark matter' would burst into colors that we could not imagine using only our physical bodies.

Professor Rubia, speaking at the 2004 Institute of Physics Nuclear Physics Conference in Edinburgh, UK, says that scientists are prepared for the possibility that dark matter might be impossible to detect, even with bigger devices. 'Then we have to sit down again and reconsider our theories about how the universe is built,' he said. (Of course, we could also take up meditation or some other similar exercises, both traditional and modern, which would allow us to use our own higher energy bodies to perceive what is invisible to our physical-biomolecular body—or at least pay attention to those who can.)

Try explaining to a being (say an animal) who has only black-and-white vision what red is. When we see with our astral bodies, as most human beings would after the death of the physical bodies, at least some of the dark matter will no longer be dark. As Saint Paul says in the 'First Letter to the Corinthians' (in the Christian Bible), 'For now we see through a glass, darkly; but then [we will see] face to face.' According to Leadbeater the higher dimensional magmaspheres are 'both around us here and now, yet so long as our consciousness is focused in the physical brain we are blankly unconscious of them.'

According to him, when the physical bodies die, the locus of awareness is transferred to the astral body, and at once we find ourselves seeing the astral part of our world, having lost sight of the physical. When later on we lose the astral bodies, we begin to live in an even higher energy body. Then we become conscious of an even higher energy magmasphere; but would lose sight of the lower energy astral and physical spheres. Like a radio, our bodies can only construct a world based on the frequencies it can receive.

Limitations of Measuring Instruments

If the radio telescope was not invented in the last century, many scientists would probably still be denying that there were any radio galaxies. Some scientists are sceptical about super particles existing because existing instruments have not detected them—although there is overwhelming mathematical and astronomical evidence that they exist. Yet time and time again, throughout history, we have built new instruments which reveal to us new phenomena and objects. Are all these improvements (to measuring instruments) suddenly going to end in this century so that there would be nothing new in the future? Is it logical or rational to conclude that something does not exist only because our *current* measuring instruments

cannot detect it? Should not an 'open verdict' rather than a conclusive denial be more scientific and logical after taking into account the massive amounts of indirect evidence?

Compactification and Localisation?

One would think that the realisation that we live in a multi-dimensional multiverse but appear to live in (3+1) dimensional universe would give a timely opportunity for physicists to work with cognitive psychologists and metaphysicists to understand better how our brains model the world we live in. Instead physicists retreat into their own comfort zones. String theorists continue to believe that extra dimensions are small and compactified although, under M Theory, there is reason to believe that dimensions can be large. However, some interpretations of M Theory suggest that the reason why we can only observe a (3+1) dimensional universe is because this space-time is localised in a particular corner of the multiverse.

Lisa Randall says, 'To our amazement, in 2000, Andreas Karch and I developed a theory in which space looks four-dimensional on or near the brane, but most of the space far from the brane appears higher-dimensional.' She believes that the reason why we appear to be in a four-dimensional world is because local spacetime is different from the rest of the multiverse. She says, 'A four-dimensional world exists only on a gravitational island. The dimensionality you see depends on your location.' This contradicts her own statement earlier in her book ('Warped Passages') where she says: '*Our senses register only three large dimensions*, so an infinite extra dimension might sound incredible.' ³[Emphasis added.] In this context, Randall's localisation theory appears to be superfluous. We should rather investigate the nature of our perception which allows us to see only a 3-dimensional space.

A more holistic theory of reality would have to include our cognitive systems or else it will degrade into naïve realism. Imagine a doctor explaining to his patient, 'Oh, you probably feel warm because the area around you has a higher temperature than the area further away from you,' instead of the simpler explanation, 'You have a fever.' The metaphysical evidence suggests that higher-dimensional universes interpenetrate our current universe but we need the relevant body (and its sensory systems) to tune into it. If that is so, Randall's localisation theory is really a distraction—perhaps another 'red herring'—which seems to crop up in her work now and then.

From a denial of any extra dimensions, Science has gone on to compactified and curled-up dimensions; and now we have localised spacetimes. However, Science appears to be approaching the end of its 'denial' phase in this century. Once it gets over this phase, there will be a closer correlation between its theories and *all* the evidence, including the metaphysical evidence.

Brains and Realities

There are so many different ways of seeing the world. There is a bewildering variety of perceptual systems which generate different realities. We will review some of them here.

Color Vision

The Costa Rican red-eyed tree-frog has a very limited visual pathway; its neural behavior and jumping reflex suggest it only 'sees' its prey if it is moving. Earthworms and caterpillars have 'eye spots,' and see only light and dark, helping them stay out of the hot sun. However, the range of vision for the bee and butterfly extends into the ultraviolet. Dogs have two types of cones in their retinas and appear to have vision similar to a human who is red-green color blind. Cats have three types of cones, like people, but do not have exactly the same color vision as we do. They live in a world of fuzzy pastels. Colors that would appear very rich to us are pastel-like to the cat.

Dogs and cats appear to respond to blue and yellow best, and seem to have more trouble with green and red. To the dog and cat, what appears red to us is simply dark to them; and what appears to be green to us is almost indistinguishable from white. The cat sees a green, grassy lawn as a whitish lawn; and a green rose-bush as a whitish bush with dark flowers.

Sharks do not possess the same variety of photoreceptors as humans. They have few retinal cones, and as a result, most have no color vision. Sea turtles have a special feature which helps them see on the dark sea floor; their individual photoreceptors contain red oil droplets which obstruct shorter light wavelengths—thus acting as a filter. As a result, they can easily pick up reds and oranges and yellows, but cannot really perceive any of the longer light wavelengths such as green or blue or violet.

Some simple animals have very different eyes. Sea stars and crablike copepods have 'eye cups,' with light-sensitive cells inside the tip of each arm. Scallops have 50-100 mirror-eyes, which bounce light to photoreceptors in the middle of the eye. Some animals exceed human senses significantly; and see many more colors than we do—such as the mantis shrimp, which has 12 different photoreceptors and pigeons, which have 6 photoreceptors. We have only 3 photoreceptors!

Seeing in the Dark

Cats can detect light that is 6 times dimmer than that which normal humans detect. Dogs also detect much lower levels of light than humans (but not as low as cats). Dogs and cats are also very sensitive to motion, especially when compared to an object that is not moving. Some dogs were shown to recognise a moving object at 800-900 metres. If the same object was stationary they only recognised it at 500 metres. People are also more sensitive to motion than to objects that are standing still.

Field of Vision

Dogs and cats can see about 150° around from their nose. The horse can see about 350° around because their eyes are positioned to the side of the head as compared to dogs and cats. This makes horses better able to watch for potential predators. Humans have a smaller field because our eyes are directed straight ahead. Binocular vision (stereo vision) occurs where the visual fields of the two eyes overlap. In the binocular field depth perception is improved and vision is better. Dogs and cats have some binocular vision but not as much as people. In dogs and cats the binocular field is 85°, in horses it is around 65°, and in people it is around 120°.

Inter-Species 'Synesthesia'

What we *feel* as heat is *seen* by snakes in the infrared region. Fish 'hear' via their lateral lines, a line of pressure sensors running along each side of the fish that pick up pressure waves (i.e. sound) in water. When someone pounds on an aquarium, it creates waves of pressure in the water that, to the fish, would be analogous to cupping your hands and pounding on your ears.

Cognitive Processes

Significant differences in visual perception can be traced to the different sensory systems of animals. But not only are the sensory systems different, brains and cognitive processes differ, thus adding to the multiplicity of realities that are generated.

Some mental operations (such as the ability to infer the sun's position from the polarisation of a patch of blue sky, or compensate for the sun's movement) are assumed to be hardwired in honey bees⁴. One type of human intelligence test measures the ability to recognise a rotated object. It now transpires that both honey bees and bumble bees can do the same⁵; so can pigeons ⁶. However, because pigeons are faster and more reliable at this task than are humans, the usual interpretation by Science is that the ability must be 'hardwired.' How does the brain reduce the information from the multi-dimensional multiverse (or perhaps even the void) to generate a (3+1) dimensional universe? This has been discussed to some extent in the author's book 'Brains and Realities'⁷. Teresi and Hooper ask, 'If our brains were a different size and shape, what would our religions be like? If we had three brain hemispheres instead of two, would our philosophies, our geometries, our mythologies, our notions of causality, space, time, and number be radically different?⁷

It has already been discussed in the author's book 'Our Invisible Bodies'⁸ that different bodies (which are ensembles of sensory systems) allow the observer to experience different universes generated by different brains. Just as the physical brain facilitates the generation of a 3d space, these higher energy body-brains facilitate the generation of spacetime with a higher number of dimensions.

Def Jehning says that our consciousness is, at its best, strictly *three-dimensional* in its spatial constructions, and its temporal organisation is linear. Anything—or almost everything—we win 'from the void and formless infinite' is caught in this reductive structure. We are so immersed in the three-dimensional make-up of our perceptions that we naively believe that reality itself is three-dimensional. Jehning believes that the assumption that reality is infinite and multidimensional forces us to a radical revision of the alleged superiority of our 3-dimensional consciousness.

'The fault, dear Brutus, lies not in our stars ... it's in our heads'

Rather than generating 'quick fixes' every few decades and concocting purely physical theories, first compactification and now localisation, physicists should seriously consider collaborating with cognitive psychologists and neuroscientists to analyze the human perceptual-cognitive system within our brains—at its current state of evolution—to understand better the physical reality that we perceive and to reconcile it to the physical and super-physical realities that metaphysics and currently Science is now describing.

Jacob Bekenstein, a brilliant physicist and leading M-Theorist comes close. Talking about the possibility of beings living in different branes, he believes that 'the structures of their brains might give them an overwhelming prejudice in favor of one description or another, in just the way that our brains construct an innate perception that our universe has three spatial dimensions.'⁹ Michael Duff, another leading Superstring and M-theorist, says 'if our senses are to be trusted, we live in a world with three space and one time dimensions. However, the revival of the Kaluza-Klein idea, brought about by supergravity and superstrings, has warned us that this may be only an illusion.'¹⁰ No 'localisation' theory required here—just a frank admission of the limitations of our current cognitive-sensory apparatus. To a metaphysicist Randall's localization theory is doubtful because it does not explain how mystics and metaphysicists can experience higher dimensional space in this corner of the multiverse.

Phasing into different Spheres and Shells Objective Physical Changes Inter-Sphere Migration

Migration from one sphere to another takes place when a higher density body dies and the locus of awareness shifts to a lower density body.

Inter-Shell Migration

The density of the magma body decreases as it expels particles; and its frequency increases—prompting a migration to an equilibrium position in a higher frequency shell.

The density of a body can be affected by psychophysical factors—including the psychokinetic effects of a self-concept. A psychologically stronger self-concept engenders a denser body. Heat and electromagnetic effects can also affect the density of the magma body.

The physical body not only has a tendency to compactify the astral and other higher energy bodies (making them denser), it lowers their frequencies. Meditation and prayer, on the other hand, generate heat and kinetic energy which reduces density and raises the frequency of our higher energy bodies.

Subjective Perceptual Changes

As the brain and sensory systems of one body deteriorate the locus of awareness shifts to the brain and sensory systems of the next higher energy body, say the astral body. This usually happens gradually and intermittently (as evidenced in pre-death experiences). As sensory impressions from physical objects grow weaker, sensory impressions from the higher energy universe become more noticeable and vivid.

So, gradually, almost imperceptibly, the person begins living and operating in a different world. Gradually he will start seeing the counterpart astral bodies of his 'living' family and friends, rather than their lower frequency physical bodies (just as he could only see their physical bodies when he was using his physical brain and sensory systems). The same sequence of events occurs when phasing into the next higher energy universe and the next one and so on.

A person therefore phases into different shells and magmaspheres when he loses sight of the objects and inhabitants of one shell and becomes more aware of the objects and inhabitants of another shell. For most of us, at death the locus of awareness is transferred to the astral body, and at once we find ourselves in Earth's 4d (astral) magmasphere, having lost sight of the physical Earth. When later on we lose the astral body and the locus of awareness is transferred to the next higher energy body, we are then conscious only of the higher energy universe, and would lose sight of the astral and physical universes.¹¹

Spectrum of Our Psychological Processes

In an interview with Jeffrey Mishlove, Karl Pribram said that quantum-like phenomena or the rules of quantum mechanics apply all the way through to our psychological processes. To that extent, he said, 'We have an explanation, or perhaps a parallel, to the kind of experiences that people have called spiritual experiences.'¹²

Physicist David Bohm says, 'Most neuroscientists seem to believe that the brain can be completely treated in terms of classical concepts. This is evidently a speculative assumption.' (Here again we see a need for physicists to collaborate with cognitive psychologists and neuroscientists to move the research forward and close the huge gap between the everyday Newtonian reality espoused by medical science and the reality that modern physics is trying to grapple with.)

Bohm believes that 'as the processes of perception unfolds into the brain, it may as it were connect to the subtle quantum domain which later may in turn reconnect to the classical domain, as outgoing action is determined through the amplification of quantum effects.' ¹³

In other words, perceptions which originate from our physical sensory organs are transmitted to a physical brain, then a semi-classical one; and then to a quantum medium; before being bounced-off in the reverse direction.

This means that when a person is in a highly creative mood, he or she may actually be accessing the near-void spheres using the particle bodies; and even the void repeatedly; and then assimilating the information in the lower energy brain-bodies in the various magmaspheres as the information becomes conscious to the particular brain-body.

As far as current medical psychology is concerned, the processes that go on in the higher energy spheres would be classified as 'unconscious processes.' The biological brain is supported by an invisible superstructure that extends into higher dimensional space.¹⁴ Each new sphere and shell corresponds to a new state of consciousness or awareness.

CHAPTER 16

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Properties of the Magma (or Magnetic Plasma) Body

All human beings (just like the Earth) have a series of counterpart bodies in each of the various magmaspheres, composed of dark matter in the form of plasma. These have been described as magma, or magnetic plasma bodies, in the author's book 'Our Invisible Bodies.'¹

The properties and appearance of the magma body, discussed below, arise *naturally* from the nature and behavior of magnetic plasma. Counterpart bodies of human beings, ghosts, angels, religious figures in apparitions are all magma bodies.

Appearance of Magma Bodies

Magma Bodies frequently appear as Balls of Light

The natural stable shape of magma bodies is ovoid.² The sphere or ovoid is lower in energy (and therefore more stable) than other shapes. We should not be surprised, therefore, if visitors from other magmaspheres (whether as religious figures, angels or ghosts) appear as balls or orbs; either at the start or throughout the encounter. Other less stable forms may also appear, for example, vortices and vapor or a cloud of dispersed particles.

Magma Bodies Emit Light and Glow

Unlike the biomolecular component of the physical body which is visible because of reflected light, objects in the magmaspheres emit light as a result of the interaction between particles in magma bodies and high energy particles in the environment—similar to what happens in auroras and inside fluorescent lamps. This is why angels glow!

According to Leadbeater, in the astral world there is a diffused luminosity, not obviously coming from any special direction.³ The environment of emissive light bodies in super universes would be very similar to being a character on the screen of a multi-dimensional plasma holographic TV.

Magma Bodies generate Colorful Auras

The aura that is radiated by the various magma bodies is generated by a procedure not unlike the one that generates the aurora borealis. (This has been discussed in some detail in the author's book 'Our Invisible Bodies'⁴.) We have already noted that there is a tendency for charged particles to follow magnetic lines of force in Chapter 5. Anthony Peratt says that electrons passing through space are captured by the Earth's magnetic field and follow spiral or helical tracks about the lines of force and in the process collide with gases in the neutral atmosphere creating the aurora.⁵ Similarly, the charged super particles in the astral and higher-energy ionised magmaspheres are captured by the electromagnetic fields of our super magma bodies and flow down (or up) magnetic (helical or spiral) lines of force in the astral and higher energy bodies generating colorful auras. However, whereas the aurora is a natural plasma light show comprising standard particles—the aura is a plasma light show of super particles!

Furthermore, magma bodies are also 'thermochromic.' When one heats a crystal made up of long rod molecules, the crystal loses positional order and becomes a fluid. However, it may retain its orientation and form a threadlike liquid-crystal state. If the repeat length of patterns is of the same order as the wavelength of visible light, this thread-like liquid-crystal can act as a diffraction grating and generate visible colors. Because the spacing changes with temperature, the material changes color with temperature (i.e. it is 'thermochromic').

The thermochromic nature of our magma bodies is particularly evident in the fluidic or liquid states. It is well-known in metaphysical literature that the astral body (in its liquid state) can be very colorful. Different temperatures within the astral body give rise to different colors in the auras of magma bodies.

Magma Bodies Can Be Transparent

Magma bodies can become translucent or transparent through the manipulation of frequencies generated by the magma (this is a natural property of magma⁶). In other words, the opacity of the magma bodies can be manipulated electromagnetically. According to observations by Leadbeater, magma bodies are frequently transparent or translucent; sometimes they cast faint shadows.⁷ The transparent bodies of angels and ghosts have also been observed by others.

Magma Bodies have Features associated with the Sun *i.e.* Coronas , Granulation and Spicules

Magma bodies have many features similar to the visible Sun—which is after all a hot ball of standard magma.⁸

Coronal auras and discharges, granulation and spicules are all features associated with the Sun and super magma bodies (including angels and ghosts)—the latter, as seen by clairvoyants. The bright coronal aura of the Sun and the aura of ghosts are similar. This coronal aura is even more pronounced for angels and in apparitions of saints or deities—such as in the Marian apparitions. Coronal discharges and flares can occur suddenly on the Sun. The various particles that are discharged, together with these flares, are carried by the Sun's plasma wind to cause magnetic storms on Earth. Similarly, the coronal aura of saints and deities blast-out particles that may have a harmful or positive effect on the observer's magma body.

Spicules are short-lived phenomena, corresponding to rising jets of gas that move upward and last only a few minutes on the Sun. Spicules can also be seen in the coronas of super magma bodies. In a semi-darkened room move your hands together so that the fingers touch. Then observe as you move the fingers away, relaxing the eyes. Most people would be able to see spicules within the halo around their fingers.

Other Properties of Magma Bodies

Magma Bodies Can Pass through Each Other

Leadbeater reported around 1910 that astral bodies 'can and do constantly interpenetrate one another fully, without in the least injuring one another.' People on the astral plane 'can and do pass through one another constantly, and through fixed astral objects.' When passing through another magma body for a short time, two astral bodies are *not appreciably affected*.

(This echoes observations of dark matter by Chandra's observatory, whose results suggest that if dark matter particles do collide, they do so *relatively weakly*.) However, if the interpenetration lasts for some time (in other words, when the magma bodies are moving at very slow speed or are

stationary), Leadbeater explains, they do affect one another as far as their rates of vibrations (or frequencies) are concerned.⁹ This is not surprising, as magma bodies are electromagnetic bodies.

When two magma bodies pass through each other at a slow speed there are electromagnetic effects. There could be changes in frequencies and distributions of charges over the magma body, after prolonged interaction. The ability of magma bodies to pass through other magma bodies is a characteristic of low-density magnetic plasma.

Leadbeater explains that astral matter is only relatively solid. Generally, the particles in the densest astral matter are further apart, relative to their size, than even gaseous particles. (For example, inter-particle distances in plasma are typically one hundred thousand times that of solids and liquids.) Hence, Leadbeater concludes that 'it is easier for two of the densest astral bodies to pass through each other than it would be for the lightest gas to diffuse itself in the air.'¹⁰

Magma Bodies Emit Electromagnetic Waves

Magma bodies emit electromagnetic waves (frequently analogous long range radio waves). These radio waves can propagate more or less freely through a plasma from the source to an observer and the radio waves become part of the remotely sensed electromagnetic spectrum of the body just like visual, infrared, or ultraviolet emissions.

Jupiter was the first planet discovered to have a radio spectrum and it was from this spectrum that the existence of a substantial magnetosphere at Jupiter was suspected. This was long before Pioneer 10 flew past the planet to make on site observations.

In addition to a simple detection of the magnetic field, radio waves allowed an accurate estimate of the intensity of the planetary magnetic field, the orientation of the field with respect to the rotational axis of the planet, and even a measurement of the internal rotation rate of Jupiter.

Similarly, the electromagnetic waves radiating out of magma bodies contain much information about the person—both his physical and psychological state.

Magma Bodies Can Communicate Telepathically

Since magma bodies emit electromagnetic waves (frequently analogous long range radio waves) which are modulated by the thoughts of the owner, telepathy can take place. Thoughts can be received and transmitted from one macroscopic magma body to another. Mircea Sanduloviciu and Lozneanu have found that plasma spheres, generated in the laboratory, can communicate 'by emitting electromagnetic energy, making the atoms within other spheres vibrate at a particular frequency.' This is no different from the vibrating diaphragm in a telephone which enables information to be communicated from one point to another, they say.¹¹

This is also confirmed by metaphysical observations. For example, Leadbeater explains, 'Every thought of definite character radiates an undulation [i.e. a wave]. This rate of oscillation communicates itself to the surrounding matter in the same way as the vibration of a bell communicates itself to the surrounding air. This radiation travels out in all directions, and whenever it impinges upon another mental [i.e. magma] body in a passive or receptive condition it communicates something of its own vibration.' ¹²

Yet another form of communication using plasma metaphysics, as seen by near-death experiencers, is the physical delivery of a 'thought-ball.' A thought-ball is like a zip file (to use computer terminology) which is packaged in the form of a plasma ball. It is ejected and directed from one magma body to another. The receiving magma body absorbs and unpacks the information. Alternatively, a 'thought-form' may be transmitted.

Effect of Psychological States on the Appearance of Magma Bodies Effect of Thoughts on One's Own Magma Body

The brightness, intensity and colors of magma bodies vary according to the properties of the magma in their bodies—which in turn is the result of habitual emotional and mental states of the being—much like the way a live CAT scan of the brain changes colors in accordance with the neural activities in the brain—which correlate with psychological processes.

Emotional and mental states are reflected in real-time in our super magma bodies by changes in shape, brightness, contrast and colors in different parts of the body; and the body as a whole. Magma bodies can change colors because they are thermochromic and can also change their degree of opacity—in accordance with their internal frequencies.

A metaphysicist who observes and interprets the colors and other attributes of a magma body is no different from a doctor observing a CAT scan or fMRI of the brain to diagnose a patient. Many 'seers' attribute these colors to various mental or emotional thought patterns and behaviors—in the same way that neurosurgeons today view a brain scan in real-time and attribute emotional and mental states to the display colors, intensity, formations and locations of these changes.

According to Leadbeater, surprise is shown by a sharp contraction of the magma body, accompanied by an increased glow if it is a pleasant surprise and by a change of color to usually brown and grey in the lower part of the ovoid when it is not. Awe swells the devotional part of the higher energy body and the striations become more strongly marked. Joy generates an additional brightness and radiance and produces ripples on the surface of the magma body. General cheerfulness, in addition, produces bubbles and a calm serenity which is pleasant to see.¹³

It is well-documented in the metaphysical literature that super magma bodies can change their appearances—almost at will. Persistent thought patterns play an important part in the appearance of super magma bodies. For example, the bodies can display a variety of clothes, skin and hair.

How is it possible for the body to change shape, color and its features within a blink of an eye? In Marian and other religious apparitions even the fine details of period costumes and hair can be seen. The super magma body may be using a technology that is similar to plasma and LCD technology combined. Each particle in its body (which is much smaller than a pixel in a TV) can transform itself into various colors—just as the cells of the biomolecular bodies of chameleons and squids do.

The effect is so real; it is indistinguishable from 'real' clothes and skin. For the etheric double, the appearance and feel of the body is almost exactly the same as the biomolecular body. Nevertheless, these changes in appearance occur mostly on the surface of magma bodies—they are superficial.

Effect of Thoughts on the Magma Bodies of Others

We know that magma bodies (which are electromagnetic in nature) change in appearance in response to the owner's mental and emotional states via electromagnetic instructions from the owner to the body. We also know that magnetic plasma generates an enormous amount of electromagnetic radiation—including analogous radio waves which can travel long distances.

When changes occur within the magma body, therefore, it is literally broadcasted to others over a wide range. This can affect the magma bodies of other beings which can *tune* into these waves. Once tuned-in, the magma body of the other being can change its appearance in response to the first being's mental or emotional states—or the collective thoughts of a group of beings. In this way, a being can appear as 'Mary' or even a fork-wielding devil to a person who is actually broadcasting or projecting his mental images to others.

If a dying person has preconceived ideas about who he or she will be meeting, any being with a magma body that appears before him may acquire the appearance of the preconceived person (assuming that the magma being intentionally tunes into the waves emanated by the magma body of the dying person). To this extent, the dying person will be experiencing a hallucination.

Generally, however, only the appearance and general ideas about the preconceived person are cloned onto the third party magma body. Often, a discussion with the third party may throw up some anomalies. The propensity for deception by other magma beings, using hallucinations, in the astral and higher energy spheres appears to be much higher than in our current physical sphere.

Effect of Psychological States of Magma Bodies in the Physical Universe

The electromagnetic waves generated by our magma bodies interact only weakly with the ordinary matter of our familiar physical universe. Respected scientific experiments in parapsychology using random number generators have been conducted which show that there is a slight distortion in the results due to the impact of thought in the physical universe.

The Princeton Engineering Anomalies Research (PEAR) laboratory of the department of Engineering of Princeton University has been conducting random number generator experiments over a period of more than twenty years; with more than 100 subjects and millions of experimental trials. In the most basic PEAR RNG experiments, the person sits in front of the computer, observing a moving line on the screen which represents the outputs of the random number generator. When the random number generator produces more electronic 'heads' than 'tails,' the line moves upwards; with more tails than heads it moves downwards, and with a 50-50 outcome it just advances horizontally. So, normally, we would expect the line to move up or down slightly, moving up and down randomly but more or less hugging the line in the middle of the screen. The subject, however, tries to get the line to move in a particular direction, through mental strategies, such as visualisation, wishing or willing.

The overall PEAR results show that people do tend to succeed more often than expected by chance to skew the results in their favor. According to Dr Mario Varvoglis, the effects are *subtle*, but the random number generator's 'coin-flips' do tend to 'conform' to the individuals' wishes.

Effect of Psychological States of Magma Bodies in the Higher-Energy Magmaspheres

The impact of thought-waves (i.e. the generation of electromagnetic waves by a magma body, modulated by the thoughts of the owner) in lower density magmaspheres would, however, be much more pronounced.

The Moon's gravitational force is one-sixth that of Earth. Jump on Earth and you'll be 2 feet off the ground and then come straight down; jump on the Moon with the same force and you'll be 12 feet off the ground and you'll be free-floating for kilometres. So it is much more hazardous to jump on the Moon. Due to the different environments, the same muscular force will give rise to considerably different results. In the same way, the force of thought-waves in a physically dense environment will be insignificant. However, apply the same force in a low density plasma environment, such as the astral magmasphere, and the impact may send you reeling into an empty void or confronting a self-made ferocious monster (as described in books such as the 'Tibetan Book of the Dead'). Your worst fears will be enacted over and over again. The impact will astonish the first-time observer. It is therefore even more important to be able to control your thoughts in the astral magmasphere. Meditative techniques help you to do this.

The thoughts of an observer easily mould the surrounding matter in the astral magmasphere. It will be very difficult for you to detach yourself from what is being observed because you will be actively moulding your macroscopic environment, quite quickly and in dramatic ways—giving rise to the phenomena of 'shape-shifting.' All matter in higher-energy universes will then appear to be animated.

CHAPTER 17

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UFOs and Aliens from Superspace

...be careful not to confuse manifested systems existing on different planes of being, one within the other [based on the particle size and wavelength] with the far-flung solar systems and galaxies on the physical plane with which astronomers deal.

I K Taimni, 1974¹

Taimni cautions that astrophysical measurements made by scientists currently are all on the physical plane, on the same plane on which our *physical* Earth exists. They belong to the same range of vibrations and particle sizes and it is therefore possible to establish communications with them through our (physical) sense organs and instruments like the telescope. The entities from the astral and higher energy universes, on the other hand, are in entirely different bands of frequencies and particle sizes and quite beyond the scope of our physical instruments — in other words, part of what scientists now classify as dark matter and energy. Taimni says the latter can be reached only from within, through the subtler (bodies and) levels of mind and consciousness.²

Reported UFO abductions usually relate to 'abductions' of our etheric doubles. No signs or only very subtle signs are seen on the physical body after any close encounters with dark matter aliens. It has been commented by researchers that these 'abduction scenarios' have many elements in common with 'astral travelling' and 'near-death experiences'—as they should—since all these events involve magma (i.e. magnetic plasma) bodies in parallel super universes and not the physical-biomolecular body.

Telepathy is also frequently associated with abductions. Kenneth Ring believes that these encounters are 'imaginal experiences'—experiences which are midway between mind and the 'hard' physical world. 'It is a real but mind-created world individuals experience during neardeath experiences and the mythic realities that shamans encounter during journeys through subtler dimensions.'³

Dark matter spaceships are crystallised in astral and etheric space based on trillions of thought-waves broadcasted by millions of etheric and astral bodies belonging to contemporary humans who watch movies and TV and those who have left their physical bodies permanently and currently reside in the fifth and fourth astral shells. As noted previously, these shells are fairly high up from the Earth's surface, yet still clearly visible from the surface. Most UFO sightings originate from the fifth and fourth astral shells. In these shells objects manifest through the interaction of the matter in these shells and the electromagnetic waves generated by super magma bodies.

Astral entities (with no corresponding physical bodies) or even the astral bodies of other humans (who are asleep) can easily assume the shape and character of 'aliens'—seen in the movies or TV. These aliens are dark matter entities who use dark matter spaceships—which generally do not register on the known electromagnetic spectrum—but can do so if their frequencies are brought down to the lower physical-etheric range. If the frequency approximates the frequency of the lower physical-etheric body, many human beings would be able to see them. If the frequency is brought down further, they would register on radar screens.

One of the objections to UFO sightings is that it will be almost impossible to travel the distances to even the nearest star with a planetary system which could harbour intelligent life. These UFOs do not originate from our universe, but from higher-energy super mind-like parallel universes. It is easier for any 'alien' from a counterpart Earth in an astral universe to visit us than someone from another planetary system in our physical universe. Furthermore, depending on the magmasphere they are coming from the nature of their manifestations would also be different. Thought-forms generated by the magma bodies of human beings populate Earth's higher energy magmaspheres and are 'picked-up' and used by inhabitants there. We will realise that most of the encounters with aliens or ghosts are really sporadic encounters with inter-dimensional beings from parallel interpenetrating Earth-based magmaspheres.

There is no indication that the UFO phenomenon is extraterrestrial. Rather than being from other star systems, there is mounting evidence that UFOs come from a multiverse which is all around us, and of which we stubbornly refused to consider in spite of the evidence available to us for centuries.

> Jacques Vallee, Dimensions: A Casebook of Alien Contact ⁴

CHAPTER 18

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Religious Apparitions

Religious apparitions would generally emanate from the astral magmasphere, although it would have to pass through the physical-etheric magmasphere, to manifest in the physical-dense sphere. The same explanation applies to them as for UFOs. Trillions of very high frequency thoughtwaves (beyond the known electromagnetic spectrum) are continually broadcasted-out day and night by the magma bodies of the religious to the various shells of Earth's magmaspheres, creating religious physicaletheric and astral entities and icons.

There are also previous human beings who led a spiritual life and who have a genuine desire to interact with human beings on Earth to accelerate their 'development' just as there are many such people on Earth helping other people. They have found ways to manifest themselves for short periods within our electromagnetic spectrum in our physical-etheric sphere.

This task appears to take up a lot of energy for these beings and presumably, based on anecdotal evidence; they would need permission from the administration in the relevant heaven. Hence, their appearances are rare. If they are residing in higher shells or spheres, it constitutes a considerable sacrifice on their part to 'come down' (literally, in terms of frequency) to communicate with us on something that they really believe in. However, they are not omniscient. They are evolving in the relevant magmaspheres, as much as we are evolving in this sphere due to natural universal forces. Their previous experience on Earth as human beings and their subsequent experience constitute a unique experience which they want to share with others. Events that are generated under this category include Marian apparitions and other religious apparitions which are public in nature. Michael Talbot says that Marian visions are not appearances of the historical Mary, but psychic holographic projections created by the collective unconscious.¹

A Case Study—The Fatima Apparitions

Magma (Magnetic Plasma) Balls and Bodies

The Report of the General Information and Complaints Department, Zeitun, Egypt states in an official statement issued in 1968 that 'Official investigations have been carried out with the result that it has been considered an undeniable fact that the Blessed Virgin Mary has been appearing on Zeitun Church in *a clear and bright luminous body* seen by all present in front of the church, whether Christian or Moslem.'

Fatima is now well known to the Catholic world. 'Our Lady' first appeared to three small children tending sheep near Fatima, Portugal on May 13, 1917 and asked that they return to the site on the thirteenth of each month until October. Before this, in the spring of 1916, the children were tending their sheep at a rocky knoll not far from their home. A sudden strong wind on a calm day startled the three peasant children out of a game they were playing and they saw across the valley a dazzling *globe of light* like a miniature Sun, gliding slowly towards them. As it approached, the *ball of light* gradually resolved itself into a brilliantly shining young man. According to the children they saw 'a light whiter than snow in the shape of a *transparent** young man, who was more brilliant than a crystal struck by the rays of the Sun.' [Emphasis added.] He identified himself as the 'Angel of Peace' and enjoined them to recite a prayer. Then he disappeared by fading away. (*Magma bodies can change their degree of opacity.)

On September 13, 1917 an assembled crowd saw a *bright ball* in the sky coming from the east, which glided majestically into view for a few seconds but then vanished, as far as the crowd was concerned. The children, however, see a *luminous globe* hovering on a little oak tree. The Virgin speaks to the children then returns the way she had come—in the shape of an easily visible *luminous ovoid* moving away in the direction of the Sun, 'calmly but with a certain speed,' before disappearing. The plasma ovoid, as we have discussed earlier is the basic form of intelligent beings in the astral and higher energy magmaspheres.²

Several researchers have pointed out that the Marian apparitions have many features of UFO encounters.³ Jacques Vallee has argued that the 'glowing globes of light' can be interpreted as vehicles and were regarded as such by some of the people who saw them.⁴

Miracle of the 'Sun' in Fatima

On October 13, 1917, when Mary was about to leave she pointed to the Sun. The rain had stopped and the clouds parted and the 'Sun' began to whirl in the sky, scattering rays of multicolored light lighting up the entire countryside. It whirled for three minutes, stopped, and then whirled again a second and third time lasting a total of twelve minutes. Then it spun faster each time and at the end seemed to tear itself from the sky and began plunging to Earth. Many in the crowd thought that it was the end of the world.

Other witnesses too, such as Maria Carreira, testified to the terrifying nature of the solar miracle: 'It turned everything to different colors: yellow, blue, white; and it shook and trembled; it seemed like a wheel of fire which was going to fall on the people.' They cried out: 'We shall all be killed, we shall all be killed! At last the "Sun" stopped moving and we all breathed a sigh of relief.'

Other people witnessed the solar miracle from a distance, ruling out the possibility of any type of collective hallucination. Another interesting point was that the heat of this 'Sun,' as it descended on the people, also had the effect of drying their clothes and the ground, so that they went from being completely soaked to being dry in about ten minutes.

So this 'Sun' appeared to be an objective phenomenon—but was it the Sun? If the Sun descended as quickly as reported it would vaporise the Earth—not simply dry clothes. Within eight minutes, Earth would be spun out of its orbit—and so would other planets at different times.

There have been similar observations, which had nothing to do with religious apparitions. In 1923 Joseph Mintern saw the 'Sun' behaving in an unusual fashion, surrounded by flashing rays and changing colors; and appeared to dance and shift about from here and there. 'The colors were so brilliant and dazzling that even after I had come indoors anything I looked at appeared in a mixture of all the colors seen,' Mintern said. Mintern described this 'Sun' as a 'kaleidoscopic Sun.' In June 1885 several residents of Birmingham, Michigan, saw a similar display just before sunset. Interestingly, they also observed 'innumerable balls of decomposed light the size of bushel baskets' in the sky and on trees.

According to William Corlis, the laws of optics predict that atmospheric ice crystals that cause common halos will also produce bright patches of light to the right and left of the true Sun on the halo ring. Sometimes, the rest of the halo ring is very faint and 'these patches stand out vividly.' 'Such

mock suns and mock moons are not at all unusual when halo conditions prevail,' he says. However, he contends that the 'kaleidoscopic Suns' as observed by Mintern and others are 'well beyond the capacity of atmospheric optical theory to explain.' He also goes on to say, 'The similarities between the "dancing Sun" of Fatima and kaleidoscopic Suns are strong.'⁵

The vision at Fatima was not of the Sun, but a physical-etheric plasma ball nearer to the Earth—perhaps even in the troposphere (the lowest part of the atmosphere)—generated by the weather in the physical-etheric Earth. It would be very much like the Sun, because the Sun is in fact a ball of plasma; and it would generate heat. In fact, if you recall, at the Fatima apparition of May 13, 1917, a 'young man' appeared out of a dazzling globe of light which was described by the seers as 'a miniature Sun.'

Vision of Hell at Fatima

On July 13, 1917 in Fatima it was reported that Mary opened her hands and rays of light from them seemed to penetrate the Earth allowing the children to see a terrifying vision of hell, full of demons and lost souls amidst indescribable horrors. This vision was so real that the children later made severe sacrifices for the salvation of sinners. Mary responded to the vision with sadness and tenderness.

Lucia Santos, the eldest of three children, reported in 1941 that 'Mary' revealed hell to them and she described the horrifying scene as follows, 'Plunged in this fire were demons and souls in human form, like *transparent* burning embers, all blackened or burnished bronze, floating about in the conflagration, now raised into the air by the flames that issued from within themselves together with great clouds of smoke, now falling back on every side like sparks in a huge fire, without weight or equilibrium, and amid shrieks and groans of pain and despair, which horrified us and made us tremble with fear. The demons could be distinguished by their terrifying and repulsive likeness to frightful and unknown animals, all black and *transparent.*' [Emphasis added.] As noted previously, magma bodies are able to change their internal frequencies to appear transparent.

Plasma Formations in the Sky

The Marian apparitions, which include various visions of Mary, Jesus and saints across the sky, are plasma light shows—just like the auroras.

Plasma physicist Anthony Peratt has demonstrated that a giant plasma column was produced in the atmosphere of the Earth some 4,000 to 5,000 years ago and that it was luminous enough to be observed by human populations around the world. Plasma scientists are now comparing electrical

plasma discharge formations in the laboratory to rock art images around the world which suggest that immense and terrifying plasma configurations were seen in the sky thousands of years ago. Understandably, the ancient myth-makers could not have considered the possibility of a plasma discharge at a sufficient distance from the Earth that could be witnessed globally.

The transitional states of plasma discharge correspond to the metamorphosis or 'shape-shifting' of mythical gods and monsters. The observed attributes of the mythic dragon (that the Chinese and other peoples may have actually observed in the skies in ancient times) can be explained by plasma discharge. The creature 'breathes' fire and displays long-flowing 'hair' or 'feathers'—a tell-tale feature of plasma discharge. Its 'writhing form' that appears in the sky and the darkness which follows are what we should expect if it was a high energy plasma discharge.

Peratt's work offers a remarkable link between plasma physics and images seen in the atmosphere in ancient times. He was intrigued by the striking similarity of ancient rock art to the discharge formations he had documented. Suddenly he was seeing, carved on stone by the tens of thousands, the very forms he had observed in the laboratory. The correlation was so precise—down to the finest details—that it could not be accidental.

CHAPTER 19

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Magma (Magnetic Plasma) Angels and Ghosts

Angels

Invisible beings that help others in accidents or in other situations are popularly described as 'angels.' These invisible helpers are most likely astral beings inhabiting or visiting the sixth astral shell, which is coincident with the Earth's crust. They could even be former friends or family members who have lost their physical bodies or people who are asleep. Many people, even in our physical Earth, go out of their way to help others. But how do these invisible helpers know when we are in trouble?

Leadbeater says it is possible for a being functioning on the astral plane to be aware of a physical accident even when he cannot hear the physical cry. 'Physical' sounds produce an effect upon the astral plane; though I do not think, he says, that we should be quite correct in calling that effect 'sound.' This is quite correct, since we are actually talking about acoustical waves in magma bodies. (This phenomenon is discussed in detail in the author's book 'Our Invisible Bodies'.) Leadbeater says that any cry which had in it a strong feeling or emotion would cause dramatic changes in the astral environment (i.e. Earth's 4d magmasphere). This is consistent with the nature of a magma environment. In the case of an accident, Leadbeater says, the rush of emotion caused by the pain or the fright would flame out like a great light, and could not fail to attract the attention of a seer if he were anywhere near. Leadbeater gives us an example where a boy who fell over a cliff was supported and comforted by an invisible helper until physical help arrived.¹ There are many such stories—almost all evidencing encounters with beings from parallel universes.

Ghosts

Most of the ghosts encountered by us originate in the shells of the 3d-double (etheric) and 4d (astral) magmaspheres which are coincident with the Earth's surface.

Etheric Ghosts

The higher energy physical-etheric bodies may not necessarily dissolve immediately on the death of the physical-biomolecular body. It may take the whole of the 'bardo' period for them to dissolve. We now know that this bardo period may even extend for many years. As long as the etheric bodies are not dissolved, the person will not be aware of the next higher energy universe (usually the astral universe). It will be 'stuck' inside the physical universe—visiting familiar places. In time, the bodies will lose energy and the bodies will appear darker—like a weak fluorescent lamp.

The person may intentionally or unintentionally meet living persons who have projected their (higher) etheric doubles during their sleep. When they wake up, most living persons will describe 'dreams' when they met with their recently deceased. The appearances of etheric ghosts will be identical to their physical-dense bodies when the latter was alive—immediately after the death of the physical bodies. In fact, it will actually be quite difficult to distinguish them from other people, unlike astral ghosts which may be quite different from their earlier appearances in their physical-dense bodies. However, over some period of time they will start to reflect the internal psychological state of the individual.

Etheric ghosts of human beings in the Earth's 3d magmasphere are more frequently seen than astral ghosts (discussed below) in Earth's 4d magmasphere because they are closer in frequency to our world. Some of the so-called 'ghosts' may actually be of persons who have still not left their biomolecular bodies completely (whom we normally refer to as the 'living').

Astral Ghosts

Although less common than etheric doubles, astral beings residing in the sixth shell of the astral magmasphere (which is coincident with the Earth's crust) may also be encountered as ghosts on rare occasions.

Life in the sixth astral shell is like ordinary physical life, minus the physical body and its necessities. This astral shell has structures similar to the physical structures which mould it. In other words, many of the astral beings at this level would be occupying the same houses that we do—being astral replicas of our physical houses—much like in the movie 'The Others' in 2001, starring Nicole Kidman and written by Alejandro Amenábar. By studying the nature of the matter in this shell, we would have a better understanding of these ghosts.

Visibility

Ghosts seen in buildings and other surface structures are actually all around us but only become visible in certain conditions. More frequent sightings may occur at night simply because the form of a ghost 'fades' in bright sunlight—using our biological or physical-etheric eyes. They are more clearly seen at night—but they are all around us all the time—just as stars are in the sky all the time but become visible (to us on Earth) at night. Historically, therefore, we have associated ghosts with the night.

Pleasant and Unpleasant Ghosts

The beings which we call 'ghosts' conduct their lives just as we conduct our lives. Just as there are pleasant people and unpleasant people, there are pleasant etheric and astral ghosts and unpleasant ones. The literature often highlights the unpleasant encounters. Nevertheless, considering that beings in the sixth shell are generally those who have preoccupied themselves with mainly denser thoughts and emotions—close in frequency to the biomolecular body, a certain lack of patience and immaturity can be expected from them. Also, etheric ghosts who are unable to carry on with the death process would most likely have unresolved psychological issues. Most of the pleasant and helpful beings emanate from higher shells. An unpleasant person in this life, however, would probably be an unpleasant etheric or astral ghost, immediately after his death. A pleasant person in this life would probably be a pleasant etheric or astral ghost, immediately after his death.

According to Leadbeater, one difficulty of the recently disembodied is that they usually require considerable experience before they can clearly identify objects and get used to their surroundings—just like a baby which requires learning to use its muscles to walk. The stone-throwing, trampling, or vague movements of purported ghosts in haunted locations are attempts by recently disembodied persons to come to terms with their new environments.²

Collisionless Ghosts

Just like other magma bodies, ghosts can move through each other. You cannot 'collide' with ghosts because they are composed of dark matter in the form of 'collisionless' plasma. However, electromagnetic effects can be felt as their bodies glide near or through your own electromagnetic magma bodies.

We don't know what the remaining 90% of matter is, but this 'dark matter' differs from ordinary matter in being able to pass right through both ordinary matter and other dark matter, just like ghosts are supposed to pass through stone walls.

> Theoretical Astrophysics Group, University of Oxford ³

Ron Cowen says, 'Evidence indicates that when speeding fragments of dark matter meet, they don't collide as other matter do but pass right through each other, ghostlike.'^{4,5}

Ability of Ghosts to Move Objects

Craig McManus believes that for a ghost to manifest it will take an incredible amount of energy on the ghost's part. Just to move a small object is like us trying to move a boulder. To actually manifest an image is nearly impossible for a ghost. Even an electrical storm doesn't seem to be enough for a ghost to appear for more than a few seconds. This is why there are very few actual ghost 'sightings.'⁶

Leadbeater has said, 'One could no more move a physical object by moving its astral counterpart than one could move the rose by moving its perfume.' If ghosts are the astral or etheric counterparts (without their physical extensions) it would be extremely difficult for them to move physical objects.⁷

All bodies of matter mutually attract each other through the gravitational force. The mass and weight of the astral counterpart of a physical body is a negligible percentage of the physical body. If you moved the Sun, the Earth would follow but if you moved the Earth, the Sun will not follow. Similarly, generally, if you moved the heavy and dense physical-biomolecular body, the astral body would follow but if you moved the astral body, the physical-biomolecular body will not follow. However, there are instances when the physical-biomolecular bodies can be moved by its dark matter counterpart bodies.

Remember that dark matter is responsible for providing additional acceleration to stars at the edge of galaxies, enabling these incredibly huge bodies to move at much higher velocities around the galactic centres. Hence, the large 'oceans' of lower density dark matter around galaxies can cause dense physical bodies—even as massive as stars, to move. It is postulated that a large expanse of low-density dark matter would have the ability to move dense physical matter through electromagnetic forces if the right couplings exist. Hence, a massive higher energy body, composed of dark magma, would be able to move a dense physical body. This happens when meditators and saints levitate. Hence, a ghost who could move physical objects would have to have, at least temporarily, a massive body (which is equivalent to a significant increase in energy). Do physical-etheric ghosts feed on electricity to temporarily increase their mass, energy and density to move objects?

Ghosts and Electricity

According to the paranormal literature, ghosts appear to feed on electricity. Many ghost investigators believe that ghosts are sighted often in rooms or places near power lines or feeder cables coming into a building. Anything that produces a strong electromagnetic field seems to bring ghosts out of the invisible woodwork and into our living or bedrooms.

This is also the reason why, perhaps, many ghost stories take place during electrical storms, says Craig McManus.⁸ 'The electricity in the air seems to charge-up the bodies of ghosts in the area. Once charged-up, they can manifest themselves—usually for a short time, before the air becomes relatively neutral again.'

If most ghosts are physical-etheric, then they are actually very close in frequency to objects in the physical-dense Earth. The higher density ghosts would be at the 'border' between the physical-etheric and physicaldense worlds. (As noted previously, the stronger the self-concept and the more egoistical the being, the denser the magma body and the lower the composite frequency.)

Boundary between Physical-dense and Physical-etheric Worlds

Dave Oester reports that when ghost researcher, Troy Taylor, took the first photo showing a glowing ball of light in the Bell Witch Cave of Tennessee, the ball was not visible at the time he took the photograph but it appeared on film.⁹ This has happened many times with other researchers. Scientists studying galaxies which are invisible to the naked eye, leave their cameras directed at these 'invisible' galaxies in deep space for long hours. After many hours and even days, the galaxies 'manifest' on a photograph.

Hence, it is possible that objects which are at the edge of our perception can be captured on film, if the camera is directed accurately at the target and given sufficient time to accumulate enough photons to show up

in an image.

We know that ghosts have magma bodies that can change their degree of opacity. In other words they can appear and disappear by changing their internal frequencies. Furthermore, being composed of (relatively) low density plasma, these ghosts could pass through you and walls. Does this not explain most (etheric) ghost sightings?

Also, it has already been discussed that the appearance of magma bodies reflect psychological states. A being which is depressed would appear differently from one who is happy. From a dark evil-looking appearance, a ghost can be transformed to look like an angel in minutes when the internal psychological state changes—perhaps when the ghostly being realises that a better world awaits him or her.

Electromagnetic Interactions with Recent Departees

Ghosts seem to have no problem manipulating electrical appliances, according to Craig McManus.¹⁰ The computer goes crazy, the television comes on and off, the phone rings but no one is there, doorbells chime for no reason—we've all heard these in ghost stories. It has been argued earlier that the etheric double and astral bodies are electromagnetic bodies. So, it should not be surprising that electromagnetic interactions take place between low frequency ghosts and our electronic equipment.

A person who has recently lost his biomolecular body but whose etheric double is still intact may have control over his electromagnetic etheric body to cause electromagnetic interferences. The person (as an etheric ghost) may lack mechanical control over objects but he may have sporadic control over electrical and electronic devices—for example light switches and computers.

Lights may go on and off without any mechanical change in the position of the light switch. Similarly, messages may appear on the computer screen without any movement of keys in the computer keyboard. Some have even claimed that broadcasts of various beings from parallel spheres have been transmitted and received by television. This is not inconceivable—considering the electromagnetic nature of parallel super universes and their beings with magma bodies that can naturally broadcast radio waves. The ability to receive broadcasts from low frequency (interpenetrating) super universes may be possible within this century.

Appearance of Angels and Ghosts

Angels and ghosts have magma bodies. Hence, they will have the properties of magma bodies, as discussed in Chapter 16. For example, angels and ghosts glow (i.e. they emit light); they are thermochromic and can vary their degree of opacity in accordance with their internal frequencies. They also have features associated with the Sun—coronas, granulations and spicules. They radiate electromagnetic waves, allowing them to communicate their mental and emotional states to others. Their own psychological states modify their appearances. They are also frequently seen in the shape of balls or orbs.

Ghostly orbs are the most photographed anomalies caught on film by ghost hunters. They can be completely transparent or display themselves in a bright solid form—both characteristics betray their plasma nature. Just like religious apparitions (for example, in the Marian apparitions, discussed previously) ghosts, angels and other visitors from superspace can also appear as balls of light. Here is one episode from the ghost literature¹¹:

All of a sudden I noticed a sort of a big ball of light, and this condensed to the shape of a tall, rather Chinese looking gentleman... The gentleman bowed, spoke a few words, led me a small path to the tourists' way, and disappeared as a ball of light.

This episode is similar to the May 13, 1917 Marian apparition when an angel condensed out of a ball of light (see Chapter 18). Ghosts (or purported ghosts) have also been photographed or have been reported to be in the form of vortices (like a moving cyclone) or vapor. Both of these forms are compatible with descriptions of magnetic plasma and its dynamics. Here are further extracts from the ghost literature¹²:

When we were about five, Aunt Sarah died... About two weeks later; Bud and I were playing by the side of the house at twilight. I happened to look up and saw a cloudy, *swirling vapor*. It became Aunt Sarah, standing there by the house. [Emphasis added.]

Very often, the manifestation process proceeds in stages—parts become visible before the whole. Dark matter itself has sometimes been described as 'mist' by scientists because of its low density and diffused nature. The sequence of events in the above extract indicates a manifesting process—from a higher frequency and lower density form to a lower frequency and more definite form. The appearance of a vortex could be due to the manifestation of a major vortex (often termed a 'chakra' in the metaphysical literature) in the magma body. For example, the major vortex at the top of the head may become visible before the whole body is seen.

CHAPTER 20

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Beyond Earth

Dark Matter Planets within the Solar System

According to metaphysicists, besides physical planets (which have their counterparts spanning a range of frequencies); there are also higher frequency planets with no physical counterparts in the Solar System. Leadbeater says that the whole of the astral portion of our Earth and of the physical planets, together with the astral planets of our System, make up collectively the astral body of the Solar System. A similar description could be made of the next higher energy body of the Solar System. The next higher energy body of the Solar System comprises not only the corresponding higher energy spheres belonging to each physical planet, but also those belonging to each astral planet, and in addition the purely higher energy planets. While each physical globe has its physical, astral and higher energy spheres, all inter-penetrating one another and therefore occupying the same space, all of those are yet quite apart, and do not communicate with corresponding planes of any other globe.² Paramahansa Yogananda says that just as many physical suns and stars roam in space, so there are also countless astral suns and moons.³

Unexpected gravitational forces experienced at the edge of our Solar System by NASA's Pioneer 10 and 11 were attributed to the pull of dark matter by Marcus Chown.⁴ According to the metaphysical literature there are invisible astral and higher energy planets within the Solar System. This explains the 'Pioneer anomaly' quite nicely.

The Sun itself has its dark matter counterparts (and therefore its own magmaspheres) as discussed in Chapter 3.

Dark Matter Galaxies

Computer simulations of galaxy formation suggest that there should be many more small galaxies in the universe than observations indicate. Some astrophysicists have suggested that the missing galaxies elude observation because they are rife with dark matter. Chung-Pei Ma, an associate professor of astronomy at UC Berkeley, and Edmund Bertschinger of the Massachusetts Institute of Technology (MIT), say that computer simulations of the evolution of dark matter predict far more clumps of dark matter than visible luminous matter in a specified region. If luminous matter follows dark matter, there should be nearly equivalent numbers of each. But, based on the computer simulations, this isn't so, according to Ma. (This is probably because there is a far greater amount of dark matter than ordinary matter. Hence, there will be more dark matter objects than ordinarily visible objects.)

Ma says, 'Our galaxy, the Milky Way, has about a dozen satellites, but in simulations we see thousands of satellites of dark matter. Dark matter in the Milky Way is a dynamic, lively environment in which thousands of smaller satellites of dark matter clumps are swarming around a big parent dark matter halo, constantly interacting and disturbing each other.'⁵

Hence, we would expect astral and higher energy planets and stars to outnumber planets and stars with an ordinarily visible physical component to them. This correlates well with metaphysical evidence.

So far, we have only considered the physical planets; but there are non-physical planets too ... [making up] by far the greater part of the planetary population of the [Solar] System.

Norman Pearson¹

Dark Matter (Astral and Higher Energy) Universes

Hence, besides physical bodies, there is a mixed bag of astral and higher energy planets, moons, asteroids and meteorites in the Solar System. The Sun, too, has its dark matter astral and higher energy counterparts. What's more the astral and other higher energy universes have their own galaxies, stars and planets — only a small number have physical counterparts which are ordinarily visible to us in our universe. The billions of galaxies and stars that we can see in the night sky, though staggering, represent only 1% of the local multiverse!

Access to Other Planets

The habitats of our neighbouring planets in their dark matter extensions may be conducive to the related type of beings, even if they are not conducive to physical life.

According to Leadbeater, matter of the lower planes is never carried over from planet to planet.⁶ Hence, most human beings after death do not find themselves in other planets. A person cannot pass from planet to planet in his astral body than he can in his physical body (in the absence of any special technology). In a highly developed higher energy body, however, this is possible.⁷

Based on this scenario, contact with astral and higher energy beings in neighbouring planets—such as Mars and Venus (and also in the nearby asteroid belt) would therefore be rare.

Technology

The extent to which the inhabitants of Earth's astral and higher energy universes have access to neighbouring planets, however, would also depend on their level of technology. After all, we have sent missions to the Moon with our physical vehicles which have traversed large expanses of empty space. Paramahansa Yogananda has reported the use of astral vehicles or masses of light to travel from one planet to another.⁹ Technology is therefore as relevant to societies in the astral and higher energy magmaspheres of the Earth as it is relevant to us.

The Sun's 5d Magmasphere

More than 99% of the (physical) mass of the Solar System is concentrated in the Sun. The Sun's magnetic field is unimaginably strong (by terrestrial standards) and very complicated. Its magnetosphere (also known as the heliosphere) extends well beyond Pluto.

The Earth's magnetosphere is a dynamic region of flowing plasma guided by our magnetic field which at times connects into the Sun's magnetic field. Within the Earth's magnetosphere are found cold plasma from the Earth's ionosphere, hot plasma from the Sun's outer atmosphere, and even hotter plasma accelerated to great speeds which 'rains' down on our upper atmosphere causing auroras in both the northern and southern hemispheres.

The Sun's diameter is 1.4 million km (870,000 mi) or about 110 Earth diameters. The minimum distance of the Earth from the Sun is 146 million km (91 million mi) and the maximum is 152 million km (94.5 million mi).

If the Sun's astral magmasphere extends by about 40 Sun diameters (i.e. somewhat greater than the proportion of the Earth's astral magmasphere to the ordinarily visible Earth) then its 4d magmasphere should terminate at about a distance of 56 million km (35 million mi). This means that the Earth would be within the 5d magmasphere of the Sun!

This opens up interesting possibilities. Although the Earth's astral magmasphere is not extensive enough to reach other planets, an ambitious astral traveller who passes into Earth's 5d magmasphere may actually be able to navigate within the Sun's 5d magmasphere to reach a neighbouring planet using the corresponding highly developed higher energy body.

Most human beings, however, would be confined to Earth's astral magmasphere which share the same gravitational field as the physical Earth. It is only at the higher levels where transitions to the Sun's magmaspheres may take place.

Hiranyaloka [a *higher* astral planet according to Yogananda, but probably the Earth's 5d magmasphere] inhabitants have already passed through the ordinary [4d] astral spheres, where nearly all beings from Earth must go at death.

None but advanced devotees are drawn by cosmic law to be reborn in new astral bodies on Hiranyaloka, the [higher] astral Sun [i.e. the 5d magmasphere of the Sun] or heaven, where I am present to help them.

> Paramahansa Yogananda, Quoting the resurrected Sri Yukteswar⁸

The Galaxy's Magmaspheres

The space between galaxies in clusters is filled with a hot gas. In fact, the gas is so hot (tens of millions of degrees) that it shines in higher frequency (invisible) X-rays instead of visible light.

Our galaxy, the Milky Way, is a significant member of the 'Local Group' of galaxies, whose largest members are the Andromeda galaxy (with 65% of the mass of the group) and our Milky Way (30%). This group comprises over 30 galaxies, with its gravitational centre located somewhere between the Milky Way and the Andromeda Galaxy. The Local Group has a diameter of about 10 million light years and belongs to the Virgo Supercluster.

This Supercluster has a diameter of about 200 million light years. It contains about 100 groups and clusters of galaxies and is dominated by the Virgo cluster near its centre. The Local Group is located near the edge and is drawn towards the Virgo cluster.

A study team at Johns Hopkins University used Hubble Space Telescope images and computer simulations to study concentrations of dark matter in clusters. A member of the team, Myungkook James Jee, concluded that 'The images we took show clearly that the cluster galaxies (studied) are located at the densest regions of the dark matter haloes.'

There are concentrations of dark matter in the centres of many galaxies; and our galaxy is no exception. Hence, we would expect even our galaxy to have the 3d-double physical-etheric, the 4d astral and higher energy and higher dimensional magmaspheres—which decrease in particle density until it merges with the void.

Epilogue

Plasma-based life-forms

Many, including scientists, are keen to know whether there are other Earthlike planets in the universe which support intelligent life. Since dark matter is pervasive throughout the universe, we would expect these Earth-like planets with intelligent beings to have their own heavens and hells, together with their gods and demons. But we do not have to look too far for intelligent life. The super-physical Solar System with its many planets is rife with inter-dimensional plasma-based life-forms.

Intelligent life is not confined to the physical spheres and shells but may be found in higher frequency magmaspheres. Our nearest planets, Mars and Venus, may have super-physical spheres harbouring a variety of plasma-based life-forms.

As far as extra-Solar planets, within the physical universe, are concerned, one should not expect exactly the same configuration of heavens and hells as on Earth. Stars, too, would have their own 3d (physical-etheric), 4d (astral) and higher energy magmaspheres where plasma-based intelligent life could thrive.

Contacting Heaven

Science fiction films and novels have suggested that, through advanced technology, heaven can be reached by the living through conventional means. Such was the case in the Disney film 'The Black Hole,' in which a manned spacecraft found both Heaven and Hell located at the bottom of a black hole.

Today, in the modern age of Science and space flight, it is widely assumed that heaven is not a physical place in this universe. Religious views, however, still hold heaven as having a dual status as a concept of mind or heart, but also possibly still a physical place existing on another 'plane of existence,' or perhaps at a future time. In fact, this book shows that heaven is *both* a state of mind and an actual location in spacetime. Based on Eastern religious concepts where you are *right now* is both a state of mind and an actual location in spacetime. The observer cannot be separated from the observed—even in quantum physics—all universes are 'participatory.'

It had been argued in the author's book 'Brains and Realities' that the structure of the human brain had evolved to enable homo sapiens to access higher energy body-brains. Only children above 2 years of age, certain language-trained apes and our recent ancestors would have evolved brains that could support the development of a magma body that could be sustained with a self-concept for a long time after the death of the physical bodies. This means that Earth's heavens and hells, which have been around for several billions of years, would only have very recently become populated with magma bodies associated with our most recent ancestors and us—perhaps less than half a million years ago. From our physical Earth, only homo sapiens (with a highly developed sense of self) could sustain a magma body consciously into the highest heavens.

Bon Voyage

As Science advances, it will elucidate the general findings in the religious and metaphysical literature. Certainly, our personal life journeys could never have been imagined to be so challenging and at the same time so exciting. It is clear that your personal journey does not end with the death of your carbon-based physical body. Columbus explored the New World across the Atlantic Ocean; we have plumbed the oceans and have sent missions to the Moon; and are preparing to go to Mars in the near future. With the launch of projects to validate Superstring theory, the stage is set to explore the vast magmaspheres in super space. Our familiar 3d world is only a small island in this expansive and mutli-dimensional space. Bon Voyage!

Glossary

Aura: Radiation from magma bodies.

Birkeland Currents: Electric currents that flow along magnetic field lines, which act like wires guiding the current in circuits. Other similar terms: cosmic filaments, meridians and orbits (Chinese acupuncture), nadi (Hindu literature), channels (Tibetan Buddhism).

Chakras: Vortexes within magma bodies, caused by magneto-hydrodynamics. Other similar terms: Wheels (Tibetan Buddhism).

Dark Matter and Energy: Invisible matter, which scientists believe make-up 99% of our universe; and which interacts weakly with ordinary matter. Other similar terms: Subtle matter and energy.

Magma: Plasma with magnetic fields embedded in it i.e. 'magnetised or magnetic plasma.'

Magma Bodies: Bodies composed of magma. Other similar terms: Subtle, physical-etheric, astral, mental, spiritual and causal bodies. Magmaspheres: Environments composed largely of magma. Magmaverses: Universes composed largely of magma.

Magneto-hydrodynamics (or 'MHD' for short): A study of the dynamics of electrically conducting fluids, including plasmas and liquid metals.

Plasma Metaphysics: The application of plasma physics to the study of subtle magma bodies and their corresponding super universes.

Quantum Metaphysics: The study of the nature and behavior of conscious particles and quantum objects.

Shell or Ring: A layer within a magmasphere.

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Is there any scientific evidence for Heaven or Hell?

Since the dawn of history, various cultures have imagined heaven and the *a*bode of gods to be literally located in some part of the sky; and have imagined hell to be in the interior of the Earth.

This book presents a model, supported by scientific and metaphysical evidence, which validates this intuitive view. It appears that after death, most human beings will indeed find themselves in a higher frequency sphere which interpenetrates and shares the same space and gravitational field as the familiar physical form of planet Earth. Depending on the nature of their bodies, they gravitate or levitate into particular 'shells' in the relevant sphere – 'higher' shells being coincident with the physical atmosphere of this planet and 'lower' shells with the crust of the Earth and below it.

Jay Alfred has a keen interest in conceptual physics and theoretical metaphysics. After years of detailed and disciplined research, he presents insights and findings that would throw light on the existence of heavens and hells; and their scientific validity.

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