



**A Private Symposium
on
Entheogenic Plant Sentience**

Hosted by

Anton J G Bilton

at

Tyringham Hall

September 22 - 25, 2015

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THE TYRINGHAM PROJECT – A SUMMARY

The Tyringham Project is an evolving endeavor to transform Tyringham Hall into a world-class luxury retreat and think-tank centre for the evolution and expansion of new paradigm consciousness, renowned for sophistication, stature, rigour, credibility, substance, exploration, innovation and integrity.

Through a unique integration of Science, Art and Spirit, The Tyringham Project might best be described as a ‘Mystery School for the New Renaissance’, becoming both the incubator and the propagator for the ideas that will enable humanity to confront the systemic challenges of the 21st century – from the environmental, social and political, to the economic and the spiritual.

The Tyringham Project is still very much in its infancy and we would therefore, welcome any thoughts and input from the assembled, thereby helping to co-create and clearly articulate a vision for the future, ensuring that this event is just the first of many within an ongoing journey of ground-breaking inspiration.

OBJECTIVES OF THE SYMPOSIUM, DR DAVID LUKE

DMT is a simple organic molecule present in an extremely wide range of animals and probably all plants, though curiously not fungus – which in true mycelial style has its own version; 4-HO-DMT. That DMT is also naturally occurring in humans is no doubt part of why it is so often experientially considered to be the strongest and strangest of all psychedelics, delivering half of all high dose users to new, yet curiously familiar alien worlds, where sentient non-human beings await to greet them – “welcome back, we missed you”. Few experiencing these phenomena report anything less than that world seeming more real than this.

Science explores, charts, navigates, discovers, and increasingly comprehends the physical world both macro and micro, pushing the limits of outer space, yet asleep at the wheel of our outwards thrusting vehicle, scant regard is given to mapping inner space – which is both within the universe and our personal container of it. And yet what could be more important as a scientific research question (in a materialistic world) than locating, verifying and communicating with beings apparently far more intelligent and knowledgeable than we are? Given that \$100M has just been provided to boost the SETI research project, wouldn't we expect any such project that already has half the researchers (in this case psychonauts) reporting positive communications, equally if not more worthy of investigation? But where are all the research grants, where are all the scientific papers, where are all the scientists and experts... ah, there you are, all ten of you, welcome back, we missed you!

The question of DMT beings, of plant sentience, of interspecies communication, of discarnate consciousness, of perhaps even dialoguing with the divine, is surely one of the most important of all research questions. It cuts to the heart of the nature of reality itself, and the precision tool for the job has been available for more than 50 years, but the academy has left it in the pencil jar in the secretary's office, hiding in plain sight.

So what steps should be made on our road to discovery? What is the role of DMT in plant-human co-evolution, and what is its origin? Can we verify this other world and these other beings? Is the DMT world just delusional, is our imagination more trixy and infinite than we give it credit for...or are these beings somehow real? If real, then what are their intentions, and what is our relationship to them? Is it time to establish an inter-dimensional embassy, or to barricade our minds against 'the other'? Or are we just finding a new way to dialogue with our (higher?) s-elf? In any case what can be learned from the beings, from DMT, from our study of it – anthropologically (from both the beings and the users), culturally, psychologically, linguistically, pharmacologically, medically, evolutionarily, heuristically, epistemologically and well, actually? ... or does all this exploration just generate more questions than it answers, a chimeric rabbit hole more labyrinthine than our crenulated brain will allow us to fathom and more obscure than dark matter? Maybe we will find out.

TYRINGHAM HALL – HISTORY

Tyringham Hall was designed by Sir John Soane in 1792 for William Praed, renowned banker and MP. Soane is internationally regarded as one of the greatest architects of the neo-classical period. Tyringham was one of a series of new country houses designed by Soane, and the largest of the new villas constructed when his idiosyncratic style had fully matured. Sir John Soane records in his memoirs “this villa, with its numerous offices, greenhouses, hothouses, extensive stabling, a great bridge, and the gateway and lodges were completed and occupied in the year 1797, after having engaged a large proportion of six of the most happy years of my life”.

The copper dome to the main house and the French Boiseries were later editions, easily contrasting with the predominately Greek style of the original building. In the 1920's, the then owner, Frederick Konig, commissioned Sir Edwin Lutyens to construct the substantial outdoor swimming pool (now the ornamental pond), the bathing pavilion, the Temple of Music and the extensive landscaping. The Temple of Music received a gold medal for design around 1934 and both pavilions are unique to this country. To each side of the elegant, round basin between the two ornamental ponds are two pillars with leopard statues, designed by William Macmillan. Macmillan also designed the fountain to the front elevation of the house featuring Diana and Apollo. The bridge at the entrance to Tyringham, (although not currently owned) is Grade I listed and a scheduled Ancient Monument.

Following Konig's death in 1940, Tyringham became a maternity home during World War II and was subsequently purchased by the Australia and New Zealand Bank as a weekend club. In 1966, Tyringham Hall was sold to a Trust headed by Sir Maurice Laing and the Tyringham Naturopathic Clinic was opened in 1967 by Sydney Rose-Neil.

Anton Bilton purchased the property 14 years ago and made extensive improvements throughout the house which have been enormously sympathetic to the original design. Tyringham Hall has thus been transformed back into the excellent home that Sir John Soane originally intended.

PROGRAMME SCHEDULE

Tuesday September 22nd, 2015

- 11.00-12.00 Arrival at Tyringham
- 13.00 Lunch and introduction from Anton Bilton
- 14.30 First Presentation, followed by group discussion
Dr Graham St John
The Pineal Enigma: The Dazzling Life and Times of the 'Spirit Gland'
- 16.30 Second Presentation, followed by group discussion
Dr Dennis McKenna
Is DMT a Chemical Messenger from an Extraterrestrial Civilization?
- 18.30 *Neo-Cortex or Phyto-Cortex?*
Tony Wright presents an illustrated exploration of evidence that supports the following proposal: *The human neo-cortex is an emergent structure formed through our ancestral symbiotic association with the female reproductive organs of Angiosperms*
- 20.00 Dinner

Wednesday September 23rd, 2015

- 08.30 Breakfast
- 09.30 Third Presentation, followed by group discussion
Dr Jeremy Narby
Amazonian Perspectives on Invisible Entities
- 11.30 Fourth Presentation, followed by group discussion
Peter Meyer
Concerning the Nature of the DMT Entities and their Relation to Us
- 13.00 Lunch
- 14.30 Fifth Presentation, followed by group discussion
Dr Erik Davis
How to Think about Weird Beings
- 16.30 Sixth Presentation, followed by group discussion
Dr Ede Frecska
The Second Foundation of Knowledge, True Visions, and Plant Sentience
- 20.00 Dinner

Thursday September 24th, 2015

- 08.30 Breakfast
- 09.30 Seventh Presentation, followed by group discussion
Dr Andrew Gallimore
*The Neurobiology of Conscious Interaction with Alternate Realities
and Their Inhabitants*
- 11.30 Eighth Presentation, followed by group discussion
Dr Rupert Sheldrake
*Morphic Resonance, Psychedelic Experiences and Collective
Memory*
- 13.00 Lunch
- 14.30 Ninth Presentation, followed by group discussion
Graham Hancock
Psychedelics, Entities, 'Dark Matter' and Parallel Dimensions
- 16.30 Tenth Presentation, followed by group discussion
Dr Rick Strassman
The Nature of the DMT Beings: Perspectives and Prospects
- 18.30 Graham Hancock will present a one hour illustrated talk
about his forthcoming book, *Magicians of the Gods*
- 20.00 Dinner

Friday September 25th, 2015

08.30 Breakfast

10.00 Summary Session, led by Dr David Luke

12.00 Departure

PRESENTATION SPEAKER ABSTRACTS

First Presentation – Dr Graham St John

The Pineal Enigma: The Dazzling Life and Times of the ‘Spirit Gland’

While even Dr Gonzo wouldn't touch 'extract of pineal,' the same couldn't be said for Dr Strassman. As a result of speculations in clinical psychiatrist Rick Strassman's 2001 book *DMT: The Spirit Molecule*, the pineal gland has grown into a popularly enigmatic phenomenon that quite literally excretes mystery. Strassman's top selling work documents his groundbreaking clinical trials with DMT conducted at the University of New Mexico in the early 1990s. Inflected with Buddhist metaphysics, the book proposed that the 'blinding light of pineal DMT' (speculated to be produced in the pineal) enables transit of the life-force into this life, and from this life to the next. Since that pivotal study, the hunt has been on to verify that the pineal is the 'lightning rod of the soul' and that DMT is the 'brain's own psychedelic.' While the burden of proof still hangs over such claims, Strassman's speculations have left the clinic to forge a career of their own. The notion that the DMT-producing 'spirit gland' is 'the intermediary between the physical and the spiritual' would form apologia for diverse spiritual and religious practices and 'new paradigm' science, fuel historical revision, and inspire horror movie scripts. From 'Messianic-DMT' (the 'Living Liquid' foretold by Hebrew prophets) to 'DMT-19' (a fictional drug in the film *Banshee Chapter*), in this presentation I will meditate upon the religious and cultural legacy of the 'spirit gland'.

Second Presentation – Dr Dennis J. McKenna

Is DMT a Chemical Messenger from an Extraterrestrial Civilization?

As its title implies, this presentation will be highly speculative, though at least partially based on fact. Dimethyltryptamine (DMT) is a remarkably simple molecule with extraordinary pharmacological properties. It is derived from the amino acid tryptophan via two trivial enzymatic steps, decarboxylation and N-methylation. Tryptophan occurs in all known organisms, as it is one of the twenty amino acids that are coded into proteins by DNA. The enzymes that convert tryptophan into DMT are similarly universal, as they are involved in basic cellular processes. DMT spawns a family of related compounds via additional fairly trivial enzyme-mediated modifications, all with similar extraordinary psychopharmacologies. These include such compounds as psilocybin, 5-Methoxy-DMT, and bufotenine, all of which are phenomenologically similar to DMT in their effects; β -carbolines, different from DMT in effect but essential for its oral activity, also originates from these biosynthetic pathways. Whether this is simply an accident, or results from the inherent intelligence of nature, or something else, the result of this state of affairs is that nature is practically drenched in DMT. It's probable that every plant contains DMT, though only certain plants contain high levels. Thousands more of these latter kind, far more than have been documented, occur commonly in every planetary ecosystem. DMT as well as its congeners, including (and especially) psilocybin in the higher fungi, are deployed throughout nature, in plants,

fungi, mammals, and amphibians; and doubtless in other unsuspected branches of terrestrial phylogeny.

These are simply facts; there is really no dispute about them. Do they have any significance? In this talk I will use these facts as a springboard for speculation. I will discuss some unremarked anomalies in the genetic coding for tryptophan and the occurrence of DMT and β -carbolines, and I will argue that perhaps – perhaps! – the occurrence and distribution of DMT and other psychoactive tryptamines in nature reflects an intervention in the evolution of life in the early biosphere by a biotechnologically adept extraterrestrial species that was intended to trigger the appearance and evolution of minded beings.

What we know from molecular evolution and phylogeny is this: DMT and its congeners were likely present in the terrestrial environment hundreds of millions of years before there was anything like nervous systems, let alone primate nervous systems, in the biosphere. Yet we also know that serotonin receptors are considered the phylogenetically oldest representative of the class of so-called G protein coupled receptors. Serotonin, also a tryptamine, is closely related structurally to DMT, and DMT and other ‘true psychedelics’ target primarily serotonin $2A$ receptors. Molecules like DMT and serotonin function as signal transducers in biochemical systems whether on cellular or ecosystem levels. Signal transduction is the exchange of information; exchange of information results in the formation of neural networks, in a self-organizing process of complexification; these networks are not necessarily localized in brains or nervous systems though the most complex may be. But they may also extend through ecosystems in the form of the complex, symbiotic interactions between plants, fungi, microorganisms, and animals, including humans. All of these processes are mediated through signal transduction, and much of that relies on chemical messengers in the environment.

Is it possible that, in an act of genomic surgery on a biospheric scale, tryptophan, and its neurotransmitter messengers like DMT and serotonin, were ‘seeded’ into the biosphere in the Archeon Eon by a space-faring, biotechnologically advanced civilization, to function as a selective evolutionary pressure enabling the eventual appearance of complex nervous systems, and intelligence? Firmly in the realm of speculation here, I will nonetheless attempt to put forth some more or less coherent reasons why this may not be such a crazy idea. Granting for the sake of the argument that I may be right; even more fun might be found in further speculations as to what would possess such a supercivilization to undertake such a project?

Neo-Cortex or Phyto-Cortex?

Tony Wright presents an illustrated exploration of evidence that supports the following proposal: *The human neo-cortex is an emergent structure formed through our ancestral symbiotic association with the female reproductive organs of Angiosperms*

An exploration of evidence that supports the following proposal: the human neo-cortex is an emergent structure formed through our ancestral symbiotic association with the female reproductive organs of Angiosperms.

The factors that resulted in the emergence, accelerating expansion, sudden stall and subsequent shrinkage of the human neo-cortex are the subject of ongoing debate. The theory of natural selection has offered an elegant explanation for the origin and evolution of species. However humans exhibit a number of traits that have proved difficult to explain coherently by classic natural selection.

There is a significant degree of consensus that humans spent many millions of years in a symbiotic relationship with the tropical forest as seed disseminators for the angiosperms. What appears to have been overlooked is the extremely unique nature of that symbiotic relationship. Forming a symbiotic relationship that involved degrees of specialisation in ingesting the female reproductive organs of the plant kingdom is perhaps the most unique aspect of human evolution. In simple terms the plants female reproductive organ provides a neotenising and feminising environment.

By effectively immersing the human genome in a neotenising and feminising environment and leaving it to co-evolve for millions of years the typical mammalian developmental windows were highly modified. Maturation and masculinisation processes were progressively delayed and diluted. These extending windows in turn facilitated the proliferation of an increasingly juvenile layer of neural tissue. Encasing the existing brain in a new layer of juvenile neural tissue had several major physiological and psychological effects due to the outer layer of the brain having a significant degree of executive function.

Third Presentation – Dr Jeremy Narby ***Amazonian Perspectives on Invisible Entities***

Amazonian people have long used plant mixtures such as ayahuasca and tobacco paste to perceive otherwise invisible entities, which they call mothers, or fathers, or owners, and which they view as life-sustaining, knowledgeable and morally ambiguous. According to Amazonian traditions, it is possible to communicate with these entities via song, music and metaphor; but the knowledge/power that can be gleaned from them is double-edged. And anthropologists point out that discussing Amazonian perspectives in a European language requires conceptual self-criticism.

Fourth Presentation - Peter Meyer ***Concerning the Nature of the DMT Entities and their Relation to Us***

Many people who have smoked N, N-dimethyltryptamine have returned from the experience convinced that they have encountered intelligent entities existing in an alternate reality. This constitutes a radical challenge to normal beliefs about reality both

by conventional scientists and by ordinary people. Building on the Neoplatonist thought of the 3rd C. theologian Origen and on speculations of the 21st C neuroscientist Andrew Gallimore, this paper attempts an outline of a cosmology and metaphysics within which it makes sense to talk of intelligent entities in an alternate reality, and proposes a specific ontological relationship between the DMT entities and humans. In the course of this a radical solution to the Cartesian mind-body problem is proposed, which builds on an insight by the poet William Blake. This paper ends with a consideration of the role of evil in the human world, and suggests that our world is as important to the DMT entities as their world will prove to be to us.

Fifth Presentation – Dr Erik Davis *How to Think about Weird Beings*

For this talk, I propose to weave together elements drawn from anthropology, religious studies, and contemporary philosophy to suggest a few ways of thinking about the problem of psychedelic entities, and particularly those be-ings that often pop up in DMT experiences. I emphasize the term be-ings, because this problem demands that we investigate the question of how and why things come to ‘be’—that is, with questions of what philosophers call ontology. And the first thing to say about the problem of ontology vis a vis DMT entities is that if we find ourselves asking ‘Are they real or not?’, or ‘Are they objective or subjective?’, then we have already missed the mark. These binary queries, which rely on the axiom of the excluded middle as well as the ‘paradigm’ or schema of naturalism that structures modern thought, land us on a well-trodden battlefield where reductionists and believers play an endless monomaniacal game of ‘capture the flag’. We need to sneak up on the question—and possibly the beings themselves—from a new angle, perhaps by staying on the edge of the field rather than its heart.

From here we might imagine another game, one in which there are many flags—in other words, many different ways for things to ‘be’. Rather than insist on a single, integrated view of reality—an integration that of course does not even exist between the various sciences—perhaps it is better to recognize the Real as a differentiating manifold spilling, splitting, and mutating through time. Rather than insist on a foundation, we might be better off adopting—if only for heuristic reasons—the fundamentally pluralistic metaphysics that William James called for in his text *The Pluralistic Universe*. This pluralism, by the way, is indistinguishable from James’ famous interest in the various dimensions that are empirically associated with altered states of consciousness, drugged and otherwise, and that he took very seriously in his famous radical empiricist call to keep our accounts with reality open.

In his recent work, the deeply philosophical anthropologist and sociologist of science Bruno Latour speaks of different ‘modes’ of ontology. That is there are different ways that different sorts of things claim a portion of reality, occupying what Latour, who is deeply influenced by James’ pluralism here, calls their own ‘ontological pasture.’ In addition to the ‘beings of law’ constituted through legal institutions, and the beings we

encounter and construct through scientific practices of knowledge formation, Latour speaks of the 'beings of fiction' and 'beings of metamorphosis'. The latter category is strongly influenced by contemporary articulations of shamanic and animist paradigms in anthropological theory, articulations that, without simply adopting the shamanic perspective, nonetheless set themselves against some of the fundamental schemas of Western naturalism. Both the beings of fiction and metamorphosis, I believe, help us carve out some space for the particular beings associated with the tryptamine trance, which I will call the 'beings of metabolism.' For whatever else they 'are,' these beings emerge as appearances, which are strongly embedded within the phenomenological envelope that arrives and recedes along reasonably predictable lines as the body metabolizes the associated substance.

There is another way of thinking about these beings that depends less on metaphysics than what we might think of as the 'ethics of encounter.' To wit, regardless of their ontological basis, the existential and experiential encounter with these beings demands a response. The powerful figures we sometimes encounter in our dreams demand no less either. With his famous notion of the I-Thou or I-You, Martin Buber insisted not only on the primacy of this relational encounter, but underscored that it potentially included animals, works of art, trees, and what he calls 'gods.' Given the mind's capacity to craft Others out of rock faces or the phosphenes of hypnagogia, we can't forego the critical problem of hallucination, delusion, and psychopathology as well. But even delusional encounters remain existential encounters that demand response. One intriguing analogy here is the hearing voices movement, where the classic 'schizophrenic' experience of hearing voices in your head is de-pathologized, as sufferers learn to live with and accept their voices by, in some sense, carving out an interactive and relational place for them to be, and to be in relation.

In terms of comparative religion and mythology, we also find that entities often possess an apparent resonance with occult systems, religious pantheons, myth systems, and figures from popular culture: giant insects, extraterrestrials, doctors, clowns, animal spirits, gods, demons, elves, gnomes. Where do these collective or cultural forms come from? The usual answers—that they are the independent supernatural agents they appear to be, or are simply figments of the imagination (whatever that is)—draw us back onto the typical battlefield. Somewhat more subtle is Jung's well-used (and, in scholarly circles, largely discredited) notion of 'archetypes', but that notion—at least as it is commonly interpreted and used by many transpersonal and archetypal thinkers—is insufficiently self-reflexive. We need to take seriously, at least to a degree, the arguments of social scientists, which tend to emphasize the largely constructed character of these forms and figures. To some degree, we see what we see because of the metabolizing mind's capacity to weave personal and collective scripts and templates into rich and compelling scenarios, something that our sometimes-extraordinary dream lives possibly point to as well. One crucial indication of this constructed dimension is the non-traditional elements of popular culture or contemporary underground 'lore' that become operative in psychedelic space alongside more classic forms of deity or familiar.

This feedback loop between culture and consciousness is crucial to keep in mind, even as we underscore the singularity of the encounter. Constructions, in other words, have a life of their own. What we should resist is not the evidence for such bootstrap constructions, but rather the idea that this account tells the whole story, that these entity encounters and narratives are ‘nothing but’ projection, invention, or mere ‘myth.’ Instead, I would like to suggest a way of thinking about psychedelic entities that the DMT trance seems to suggest to so many: that it stages an authentic encounter that nonetheless occurs by way of a sort of interface constructed within the temporally (and temporarily) instantiated ‘as if’ space of the metabolic envelope, a space whose ontology follows what Robert Anton Wilson called a ‘maybe logic’ rather than the classical, non-feedback logic of the excluded middle. In this view, the human phenomenological field, the sensorium itself, becomes a metamorphic medium that stretches to register the Other and the Outside, and necessarily falls short of it as well, tangled once again in its own loops.

Sixth Presentation – Dr Ede Frecska

The Second Foundation of Knowledge, True Visions, and Plant Sentience

A two-input model of human information processing with the corresponding biological interfaces is proposed in the presentation. It is argued that dual aspects of nature generally are reflected in the way we relate to it, and may appear on the different levels humans make representation of the environment. Evidence from neurosciences for two quite distinct forms of visual perception and the ‘bicameral mind’ concept are presented as existing examples of the argued principle. The local/non-local division of the physical world cuts to the deepest level of information processing resulting in two basically different but complementary foundations of knowledge. A dual-process approach in the way humans relate to the world emerges from this analysis, with the ‘perceptual-cognitive’ process (based on local effects) receiving awareness in the ordinary states of consciousness, while the ‘direct-intuitive’ (based on non-local connections) process transpiring mainly in the integrative forms of altered states of consciousness. The outlined dichotomy of knowledge can explain the differences between scientific and spiritual teachings, sets ground for interpretation of plant sentience and psi research, and provides ontological basis with veridical value for visionary experiences.

Seventh Presentation – Dr Andrew Gallimore

The Neurobiology of Conscious Interaction with Alternate Realities and Their Inhabitants

The powerful psychedelic tryptamine, N, N-DMT, has a remarkable ability to fire the user into bizarre alien worlds that are often infested with a variety of strange entities. The unshakeable authenticity of these worlds, including uncanny phenomenological commonalities between users, leads many to conclude that they have an autonomous existence independent of the user, and cannot be explained away as mere hallucination. However, this interpretation struggles to explain how data from an alternate reality could be received, parsed and rendered by a human brain that, ostensibly, has only ever

had access to data from the consensus world, received through the normal sensory apparatus. Using a combination of systems neuroscience, neuroevolutionary theory, philosophy of consciousness, and wild speculation, I will discuss how this apparently insurmountable problem might be dispensed with. This will allow us to take the DMT entities seriously, as truly conscious agents. In light of this, finally, I will discuss how we might develop our DMT administration technology to allow deeper and potentially indefinite sojourns in the DMT reality, facilitating extended interactions with the DMT entities in their hyperdimensional habitat. We can envision a time in the near future when a brave voyager might spend hours in their realm, asking specific questions, performing experiments, and bringing us closer to an independently verifiable relationship with citizens of an alternate universe. Ahoy!

Eighth Presentation – Dr Rupert Sheldrake

Morphic Resonance, Psychedelic Experiences and Collective Memory

According to the hypothesis of morphic resonance, psychedelic experiences are likely to involve a collective memory through which people taking these substances today are unconsciously influenced by those who have taken them in the past. I will explore this idea and discuss ways in which it could be tested experimentally.

Ninth Presentation - Graham Hancock

Psychedelics, Entities, 'Dark Matter' and Parallel Dimensions

Many people who have experimented with psychedelics have at one time or another had the experience of encounters with what appear to be intelligent, non-physical and non-human entities - and very frequently these entities appear to communicate with us telepathically and even to teach us useful knowledge. Are these entities just figments of 'our brains on drugs' - mere 'hallucinations' with no reality to them - or is there something else, much more mysterious and much more significant going on? In this talk Graham Hancock shares lessons from his own experiences with smoked DMT, and with Ayahuasca, the Amazonian 'Vine of Souls', and draws on the latest scientific research to present a new and disturbing picture of reality.

Tenth Presentation - Dr Rick Strassman

The Nature of the DMT Beings: Perspectives and Prospects

The subjective experience resulting from DMT administration is often marked by more-or-less highly articulated encounters with beings composed of light who possess various sizes, shapes, sentience, power, intelligence, and intent. The 'hard' neurotheology model proposes that these beings are simply a product of perturbed brain function.

The psychoanalytic/psychological model suggests they are symbolic representations of unconscious mental processes. Zen Buddhism combines and extends these two

approaches to the unreality of the beings by positing their status as mind-brain detritus being shed on the way to the ultimate formless state of enlightenment. The 'pre-scientific' shamanic model assumes the external, objective, free-standing nature of the beings.

A 'soft' neurotheological model suggests that altered brain chemistry changes the receiving characteristics of the mind-brain complex and allows us to peer into previously invisible worlds, which are now being explored within the context of modern physics. 'Dark matter cameras' could conceivably capture images of the inhabitants of these usually invisible realms.

Theoneurology also accommodates a 'reality-basis' of the beings, and brings into the discussion notions regarding their ultimate origin and purpose. It also provides a context for understanding the information the beings attempt to communicate, based on the long-standing Western tradition embodied in the Hebrew Bible. Using Jewish medieval metaphysics as a springboard, we may conceive of the beings as processes or forces that are either local and discrete, or local representation of more pervasive forces or processes.

Finally, the DMT beings may occupy an intermediary state between objective and subjective and require human consciousness for their apprehension, thus precluding the efficacy of a 'dark matter camera.'

PRESENTATION SPEAKER BIOGRAPHIES

Dr Graham St John, PhD, is an Australian cultural anthropologist specializing in entheogens, dance music cultures, and neotribes. He has authored several books, including *Mystery School in Hyperspace: A Cultural History of DMT* (forthcoming in Dec 2015 with Evolver, an imprint of North Atlantic Books), *Global Tribe: Technology, Spirituality and Psytrance* (Equinox, 2012), and *Technomad: Global Raving Countercultures* (Equinox, 2009). He has held fellowships in Australia, United States, Canada, and Switzerland, where he recently began researching the global Burning Man diaspora in Europe. A frequent speaker at conferences and transformational festivals, he is the founding Executive Editor of *Dancecult: Journal of Electronic Dance Music Culture*.

Dennis McKenna has pursued interdisciplinary research in the study of Amazonian ethnopharmacology and plant hallucinogens for over 30 years. He has conducted extensive ethnobotanical fieldwork in the Peruvian, Colombian, and Brazilian Amazon, recently completing a four-year project investigating Amazonian ethnomedicines as potential treatments for cognitive deficits. His doctoral research (University of British Columbia, 1984) focused on the ethnopharmacology of ayahuasca and *oo-koo-he*, two tryptamine-based hallucinogens used by indigenous peoples in the Northwest Amazon. Dr. McKenna completed post-doctoral research fellowships in neurosciences in the Laboratory of Clinical Pharmacology, National Institute of Mental Health (1986-88), and in the Department of Neurology, Stanford University School of Medicine (1988-90). He joined Shaman Pharmaceuticals as Director of Ethnopharmacology in 1990, and subsequently joined Aveda Corporation as Senior Research Pharmacognosist. He is currently Assistant Professor in the Center for Spirituality and Healing at the University of Minnesota, where he teaches courses in Ethnopharmacology, Botanical Medicines, and Plants in Human Affairs. He is a founding board member of the Heffter Research Institute, a non-profit research organization focused on the development of therapeutic applications for psychedelic medicines. He was a key organizer and participant in the Hoasca Project, the first biomedical investigation of ayahuasca used sacramentally by the UDV, a Brazilian religious sect. Dr. McKenna is author or co-author of 4 books and over 50 scientific papers in peer-reviewed journals.

Tony Wright is a consciousness researcher based in Penzance, Cornwall, who studied horticulture and plant biochemistry at the Royal Botanic Garden in Edinburgh. He is the co-author with Graham Gynn of *Left in the Dark/Return to the Brain of Eden – Restoring the Connection between Neurochemistry and Consciousness*, an acclaimed study of the trans-generational epigenetic theory of evolution and its impact on the development of the human brain.

Jeremy Narby, anthropologist and writer, grew up in Canada and Switzerland, studied history at the University of Canterbury, receiving a doctorate in anthropology from Stanford University. Jeremy spent several years living with the Ashaninka tribe in the Peruvian Amazon, cataloging indigenous uses of rainforest resources.

Experiences with ayahuasca during his research inspired his first book, *The Cosmic Serpent: DNA and the Origins of Knowledge*. In the book, Jeremy proposes that indigenous people have developed a deep understanding of medicinal plants and even DNA itself, through ritualized use of ayahuasca, a theory deemed heretical by mainstream science. Jeremy has since written three other books: *Shamans Through Time: 500 Years on the Path to Knowledge* (2001), *Intelligence in Nature* (2005), and *Psychotropic Mind: The World According to Ayahuasca, Iboga, and Shamanism* (2010). He lectures worldwide and sponsors rainforest expeditions for biologists and other scientists to examine indigenous knowledge systems and the utility of ayahuasca in gaining knowledge. He was featured in the documentary *DMT: The Spirit Molecule*. Since 1989, Jeremy has been working as the Amazonian projects director for the Swiss NGO, *Nouvelle Planète*.

Peter Meyer majored in philosophy and mathematics and worked from 1980-1994 in California as a computer programmer and software developer. There he met Terence McKenna and collaborated with him in developing the software to illustrate his Timewave Zero theory. Pursuing his early-established interest in psychedelic exploration he published in 1993 the first article describing in detail contact with intelligent entities in the DMT space. He conducted postgraduate research in computational physics at the University of Derby and in 2000 received an M.Phil. degree for this. Since 2001 he has made his living as an independent software developer and publisher ("Hermetic Systems"), while traveling in Europe, Asia, Africa and South America. In 2010 he began to develop computational astrology software, inspired by the work of Richard Tarnas. His interests include philosophy, history, classical music and opera, and especially the current global geopolitical situation and its background.

Dr Erik Davis is an author, podcaster, and award-winning journalist and media critic based in San Francisco. His wide-ranging work focuses on the intersection of alternative religion, media, and the popular imagination. He is the author, most recently, of *Nomad Codes: Adventures in Modern Esoterica*. He also wrote *The Visionary State: A Journey through California's Spiritual Landscape*, and *TechGnosis: Myth, Magic, and Mysticism in the Age of Information*, which has been translated into five languages. He also wrote a short critical volume on Led Zeppelin. His essays on music, technoculture, and spirituality have appeared in dozens of books, including *Sound Unbound*, *AfterBurn: Reflections on Burning Man*, *Zig Zag Zen*, and *Rave Culture and Religion*. Davis has contributed to scores of publications, including *Bookforum*, *Salon*, *Slate*, *Artforum*, *Wired*, the *LA Weekly*, and the *Village Voice*. He appears in numerous documentaries, and has been interviewed by CNN, the BBC, public radio, and the *New York Times*. For over five years, he has been exploring the "cultures of consciousness" on his weekly podcast *Expanding Mind* on the

Progressive Radio Network. He graduated from Yale University in 1988, and recently earned his PhD in religious studies from Rice University.

Dr Ede Frecska is Chairman of the Department of Psychiatry at the University of Debrecen, Hungary. He received his medical degree in 1977 from the Semmelweis University in Hungary. He then earned qualifications as certified psychologist from the Department of Psychology at Lorand Eotvos University in Budapest. Dr. Frecska completed his residency training in Psychiatry both in Hungary (1986) and in the United States (1992). He is a qualified psychopharmacologist (1987) of international merit with 17 years of clinical and research experience in the United States. During his early academic years, Dr. Frecska's studies were devoted to research on schizophrenia and affective illness. He published more than 50 scientific papers and book chapters on these topics. In his recent research he is engaged in studies on psychointegrator plants and techniques. He is particularly interested in the physiological role of endohallucinogen compounds (DMT, 5MeO-DMT, and bufotenin). Dr. Frecska is a member of several professional organizations (APA, ECNP, CINP), and has received grants and awards from a variety of sources (NARSAD, NIAA).

Dr Andrew Gallimore is a neurobiologist, pharmacologist, and chemist currently based at the Okinawa Institute of Science and Technology, where he develops computational models of the signaling pathways underlying neural function. He has been interested in the neural basis of psychedelic drug action for many years and is the author of a number of articles on DMT and the psychedelic state, including *Building Alien Worlds* (2013), in which he developed a new model of DMT's effects on neural function and its relationship to human neuroevolution. He recently published the first theoretical paper to link the phenomenology of the psychedelic state to Giulio Tononi's integrated information theory (IIT) of consciousness. He is also currently collaborating with Dr. David Luke to perform the first detailed phenomenological analysis of the subjective reports ("bedside notes") of the sixty volunteers in Rick Strassman's landmark human DMT study. It is hoped that this work will further our understanding of the ontological significance of the astonishing psychoactive effects of this unique psychedelic.

Dr Rupert Sheldrake is a biologist and author of more than 80 scientific papers and ten books. He was among the top 100 Global Thought Leaders for 2013, as ranked by the Duttweiler Institute, Zurich, Switzerland's leading think tank. He studied natural sciences at Cambridge University, where he was a Scholar of Clare College, took a double first class honours degree and was awarded the University Botany Prize (1963). He then studied philosophy and history of science at Harvard University, where he was a Frank Knox Fellow (1963-64), before returning to Cambridge, where he took a Ph.D. in biochemistry (1967). He was a Fellow of Clare College, Cambridge (1967-73), where he was Director of Studies in biochemistry and cell biology. As the Rosenheim Research Fellow of the Royal Society (1970-73), he carried out research on the development of plants and the ageing of cells in the Department of Biochemistry at Cambridge

University. While at Cambridge, together with Philip Rubery, he discovered the mechanism of polar auxin transport, the process by which the plant hormone auxin is carried from the shoots towards the roots.

From 1968 to 1969, as a Royal Society Leverhulme Scholar, based in the Botany Department of the University of Malaya, Kuala Lumpur, he studied rain forest plants. From 1974 to 1985 he was Principal Plant Physiologist and Consultant Physiologist at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in Hyderabad, India, where he helped develop new cropping systems now widely used by farmers. While in India, he also lived for a year and a half at the ashram of Father Bede Griffiths in Tamil Nadu, where he wrote his first book, *A New Science of Life*, published in 1981 (new edition 2009).

Since 1981, he has continued research on developmental and cell biology. He has also investigated unexplained aspects of animal behaviour, including how pigeons find their way home, the telepathic abilities of dogs, cats and other animals, and the apparent abilities of animals to anticipate earthquakes and tsunamis. He subsequently studied similar phenomena in people, including the sense of being stared at, telepathy between mothers and babies, telepathy in connection with telephone calls, and premonitions. Although some of these areas overlap the field of parapsychology, he approaches them as a biologist, and bases his research on natural history and experiments under natural conditions, as opposed to laboratory studies. His research on these subjects is summarized in his books *Seven Experiments That Could Change the World* (1994, second edition 2002), *Dogs That Know When Their Owners Are Coming Home* (1999, new edition 2011) and *The Sense of Being Stared At* (2003, new edition 2012).

In his most recent book (2012), called *The Science Delusion* in the UK and *Science Set Free* in the US, he examines the ten dogmas of modern science, and shows how they can be turned into questions that open up new vistas of scientific possibility. This book received the Book of the Year Award from the British Scientific and Medical Network. He lives in London with his wife Jill Purce. They have two sons, Merlin, a graduate student in Plant Sciences at Cambridge University and a research fellow at The Smithsonian Tropical Research Institute, and Cosmo, a musician.

Graham Hancock is the author of the major international non-fiction bestsellers *The Sign and the Seal*, *Fingerprints of the Gods*, *The Message of the Sphinx*, *Heaven's Mirror*, *Underworld* and *Supernatural*, and of the epic adventure novels *Entangled* and *War God*. His books have sold more than seven million copies worldwide and have been translated into thirty languages. His public lectures, radio and TV appearances, including two major TV series, *Quest For The Lost Civilisation* and *Flooded Kingdoms of the Ice Age*, as well as his strong presence on the internet, have put his ideas before audiences of tens of millions. He has become recognised as an unconventional thinker who raises resonant questions about humanity's past and about our present predicament. In February 2015 Hancock was voted No 30 in the Watkins list of "The 100 Most Spiritually Influential

Living People”. Hancock's new book, *Magicians of the Gods*, is published in the UK on 10 September and in the US on 10 November.

Dr Rick Strassman obtained his undergraduate degree in Biological Sciences from Stanford University, and his medical degree from Albert Einstein College of Medicine of Yeshiva University. He trained in general psychiatry at UC Davis in Sacramento and took a clinical psychopharmacology research fellowship at UC San Diego. Joining the faculty at the University of New Mexico in 1984, he first studied pineal melatonin function in humans. Between 1990-1995 he performed the first new US clinical research with psychedelic drugs in a generation, focusing primarily on DMT, as well as psilocybin, receiving funding from the National Institute on Drug Abuse and Scottish Rite Schizophrenia Research Foundation. In 2007 he co-founded the Cottonwood Research Foundation with Andrew Stone from Albuquerque and Dr. Steven Barker from Louisiana State University. He has authored or co-authored over 35 peer-reviewed scientific papers, and served as a consultant to various government, non-profit, and for-profit entities. His book *DMT: The Spirit Molecule* (2001) has sold 150,000 copies, been translated into 12 languages, and is the basis of a successful independent documentary that he co-produced. He is co-author of *Inner Paths to Outer Space* (2007), and author of *DMT and the Soul of Prophecy*. He is currently clinical associate professor of psychiatry at the UNM school of medicine and lives in Gallup, New Mexico.

DISCUSSANT BIOGRAPHIES

Robin Carhart-Harris successfully coordinated the first clinical study of psilocybin in the UK and the first clinical study of a classic psychedelic drug in the UK for over 40 years. After being awarded an MA in Psychoanalysis at Brunel University, London, Carhart-Harris completed his PhD in psychopharmacology at the University of Bristol. In 2009, under the mentorship of Professor David Nutt, Carhart-Harris moved to Imperial College London to continue his fMRI research with the classic psychedelic drug psilocybin (magic mushrooms). Over the last four years Carhart-Harris & Nutt have built up a programme of research with psychedelics that includes fMR and MEG imaging with psilocybin, fMR imaging with MDMA and soon an MRC-sponsored clinical trial to assess the efficacy of psilocybin as a treatment for major depression. Carhart-Harris has a review article published in *Brain* on the neurobiology of Freudian constructs and his work with psilocybin is now published in *PNAS* and the *British Journal of Psychiatry* with several other relevant papers to follow. Carhart-Harris has been supported by the Beckley foundation (UK) and the Neuropsychanalysis Foundation, Heffter Foundation and MAPS (US).

Bernard Carr is Professor of Mathematics and Astronomy at Queen Mary, University of London. His professional area of research is cosmology and astrophysics, and he did his PhD with Stephen Hawking at Cambridge. He has worked on such topics as the early universe, black holes, dark matter and the anthropic principle. His recent books include "Universe or Multiverse?" and "Quantum Black Holes". He also has a long-standing interest in the relationship between physics and consciousness, and in psychical research since this suggests that there can be a direct interaction between mind and the physical world. He argues that the altered states of consciousness associated with psychic phenomena and anomalous experiences of time may require a higher-dimensional model of reality, which he relates to ideas in modern physics. He has been President of the Society for Psychical Research and Chairman of the Scientific and Medical Network.

Vimal Darpan weaves 30 years of experience in music, healing, and the shamanic arts to create a unique transmission that inspires, enlivens and transforms. His home is in Australia where he is renowned as a teacher, musician and healer. Bringing people together to create an unambiguous experience of our common Source is the intention, which inspires his work. A skillful blend of ceremony, song, meditation and celebration are the means by which he achieves the goal. Darpan is a spontaneous and engaging speaker with a natural flair for embellishing his talks with interesting stories, anecdotal references and rich personal experience. He delivers a wealth of information within a context which inspires and motivates. His passion is creating positive change by initiating vision and awakening new perspectives. Darpan is currently working on a book which references his many years of experience in the shamanic/healing arts and is available to deliver talks, concerts, seminars and workshops anywhere in the world.

Amanda Feilding, Countess of Wemyss and March, is a British scientist and founding Director of the Beckley Foundation, a UN accredited NGO aimed at reforming drug policy. The Beckley Foundation is dedicated to providing a rigorous, independent review of global drug policy, aiming at reducing the harms associated with both the misuse of drugs and the policies that aim to control them. The intention of the Foundation is to help develop policies that are evidence-based and rational. Towards this end, Amanda has hosted many influential seminars on International Drug Policy. Bringing together leading academics, experts and policy-makers from around the world, these seminars initiate such innovations as the call for a drug classification system based on a scientifically evaluated scale of harm. Fascinated by mysticism and states of altered consciousness since childhood, Amanda famously gained notoriety in 1970 when she documented her own trepanation in the film *Heartbeat in the Brain*, then subsequently in a 1998 documentary, *A Hole in the Head*. In *Blood and Consciousness*, Amanda also published her own theories about how trepanation influences blood-oxygen levels in the brain and can create an expansion in consciousness.

Santha Faiia is a professional photographer specialising in ancient cultures and monuments. Her work has been published around the world in major newspapers and magazines and in 1990 her photographic exhibition *Ethiopian Trilogy* was opened at the Royal Geographical Society London by Her Royal Highness Princess Anne. Faiia's work illustrated *The Sign and the Seal* (1992) and *Fingerprints of the Gods* (1995), and in 1998 her major book of photographs was published – the international bestseller *Heaven's Mirror*. Faiia's images from sacred sites as far afield as the temples of Angkor in Cambodia and the great pyramids of Giza in Egypt bring to life a lost world and 'achieve the rare feat of making you feel you are there' (Western Mail). Faiia worked closely with Hancock on *Underworld* (published in 2002), her photographs of the many ancient underwater ruins off the coast of Japan, all around the Pacific, off Indonesia and Malaysia, off India, and in the Mediterranean, the Atlantic and the Caribbean adding a whole new dimension to her work. She also photographed *Supernatural* (published 2005), putting unique images of the ancient rock art of South Africa before a global public. More recently, in 2013, Faiia's photographs of Easter Island were presented at the Vatican Ethnological Museum contextualising a special exhibition of Easter Island artefacts. In 2014 a second exhibition at the Vatican Ethnological Museum, this time on Indonesia, was again contextualised with a collection of Faiia's photographs. Faiia's latest work is to be seen in the 32 pages of colour photographs she has contributed to the forthcoming *Magicians of the Gods*.

Anna Hope is a novelist and non-fiction writer. She was educated at Oxford University, RADA, The University of London and various jungles and deserts in central and south America. Her fiction has been translated into 10 languages and has been shortlisted for numerous prizes. Currently she is also Visiting Fellow at the University of Essex where she lectures on Rebecca Solnit and the Politics of Uncertainty.

Luis Eduardo Luna is an anthropologist and noted ayahuasca researcher. Dr. Luna was born in 1947, in Florencia, Colombia. He received his doctorate in 1989 from the Institute of Comparative Religion at Stockholm University, as well as an honorary doctorate in 2000 from Saint Lawrence University, New York. He currently is a language teacher at the Swedish School of Economics and Business Administration in Helsinki, Finland. Dr. Luna is best known for his research of the entheogenic tea Ayahuasca. His research has focused on traditional indigenous usage as well as the newer syncretic ayahuasca churches such as Santo Daime and the União do Vegetal. He is the director of Wasiwaska, Research Centre for the Study of Psychointegrator Plants, Visionary Arts, and Consciousness, located in Brazil; currently, they are studying the neurological aspects of ayahuasca inebriation on the central nervous system.

Cosmo Feilding Mellen started working in documentaries after graduating from Oxford University in 2008 with a double first in Classics. His first feature documentary was *Breaking the Taboo*: narrated by Morgan Freeman and featuring interviews with Bill Clinton, Jimmy Carter, and other presidents from around the world, the film was an expose of the failed international War on Drugs. His second documentary feature, *The Sunshine Makers*, was produced by Academy-Award winning Passion Pictures and tells the story of two underground chemists who tried to save the world with LSD and in the process fuelled the psychedelic revolution of the 1960s.

Jill Purce is a British voice teacher, Family Constellations therapist, and author. In the 1970s Purce developed a new way of working with the voice, introducing the teaching of group overtone chanting, producing a single note whilst amplifying the vocal harmonics. She is a former fellow of King's College London, Biophysics Department and has produced over 30 books as General Editor of the Thames and Hudson Art and Imagination series. Between 1971 and 1974 she lived and worked in Germany with the composer Karlheinz Stockhausen. Since the early 1970s she has taught internationally-diverse forms of contemplative chant, particularly overtone chanting. For over fifteen years she has been leading Family Constellations combined with chant. She is the author of *The Mystic Spiral: Journey of the Soul* a book about the spiral in sacred traditions, art and psychology, as well as numerous articles.

William Rowlandson is Senior Lecturer in Hispanic Studies at the University of Kent. He has published on various areas of Latin American studies, including the history of Guantánamo Bay and Gitmo detention centre, rendition, torture, Cuba during the War on Terror. He has also published studies of Borges, Lezama Lima, Cabrera Infante and Rulfo. William teaches aspects of Latin American cultural history, the prose and poetry of Borges, Cuban literature and film of the revolutionary era.

TEAM BIOGRAPHIES

Anton Bilton (Host) is an economics graduate from The City University in London. He was the founder of The Raven Group and has also been a founder and director of three other companies that have floated on AIM. He is currently Executive Deputy Chairman of Raven Russia Limited. Outside of his working environment, Anton's principal interest is altered states of consciousness and entheogenic plant sentience.

Max Baring (Video/Audio Director) got into documentaries after studying Social Anthropology at Edinburgh University in the late 1980s, then studying at the Centre for Visual Anthropology at the University of Southern California. Max returned to the UK in 1993 and now has over twenty five years professional experience working as a producer, lighting cameraman, director and editor in the TV Broadcast industry. He also produces digital media for the corporate and charity sectors. Max's work has ranged from mainstream TV series like *Grand Designs* for Channel 4 and *Gold Rush* for Discovery, to specialist observation documentary series such as ITV's *Guarding the Queen*, BBC4's *Syrian Schools* (Winner of the Japan Prize) and the BBC Storyville series *Barbados at the Races*. Corporate Clients have included the Foreign and Commonwealth Office, the City Bridge Trust, and the Institute for State Effectiveness.

Dr David Luke (Moderator/Curator) is Senior Lecturer in Psychology at the University of Greenwich where he teaches an undergraduate course on the Psychology of Exceptional Human Experience. His research focuses on transpersonal experiences, anomalous phenomena and altered states of consciousness, especially via psychedelics, having published more than 100 academic papers in this area, including five books, most recently *Neurotransmissions: Essays on Psychedelics* (2015) and *Talking with the Spirits: Ethnographies from Between the Worlds* (2014). David is also director of the *Ecology, Cosmos and Consciousness* salon at the Institute of Ecotechnics, London, and is a cofounder and director of *Breaking Convention: Multidisciplinary Conference on Psychedelic Consciousness*. He has studied techniques of consciousness alteration from South America to India, from the perspective of scientists, shamans and Shivaites, but increasingly has more questions than answers.

Rory Spowers (Curator/Co-ordinator) is an ecological writer, campaigner and filmmaker who moved from mid-Wales to Sri Lanka in 2004 and has been now living in Ibiza since 2012, where he first went to work with BBC presenter Bruce Parry on the feature film *Quest*. Rory's last book, *A Year in Green Tea and Tuk Tuks*, covers the creation of Samakanda 'Bio-versity', an ecological learning centre in south Sri Lanka. His previous book, *Rising Tides*, was a history of ecological thought and critically acclaimed by the UK *Sunday Times*, *The Observer* and a variety of magazines. Rory's first book, *Three Men on a Bike*, follows a bizarre cycling trip through Africa, travelling with friends on the original

three-seater 'trandem' used by *The Goodies* on BBC TV in 1970s. In 2002, Rory founded The Web of Hope, a UK charity and ecological education resource highlighting role models for sustainability, social justice and positive change, now part of Sustainapedia. Most recently, he has been working with Mangu TV promoting documentary films, such as *Neurons to Nirvana – Understanding Psychedelic Medicines*, and he is now working as a Curator for The Tyringham Project.