

In 1997, I made a documentary series for Radio One of the Canadian Broadcasting Corporation. This is part two of the of the 'working script' – the content I presented on radio – the basis for the television version of HAUNTED HOUSE, HAUNTED MIND.

LISTER: I'm Lister Sinclair. In 1993 Don Hill saw a ghost in the house his family had bought in Canmore, Alberta. It was a standard haunted house - the noises, the cold drafts, the terror.

They sold the house, and Don Hill spent the next four years trying to understand what had happened.

In the summer of 1997, he volunteered as a subject in Michael Persinger's lab at Laurentian University. And it was there he saw again, and felt, the 'ghost' that haunted his Rocky Mountain home.

This is how our programme ended last night.

LAB ACTUALITY/programme one excerpt

Don Hill's experience in the lab was stimulated by a powerful new machine - a device that creates electromagnetic fields similar to those that occur naturally in some kinds of geographic terrain. That the machine works to create hallucinations is beyond doubt; the experimental proof is astonishing. And so are the implications.

Tonight on IDEAS: part 2 of *Haunted House, Haunted Mind* by Don Hill.

DH: I am a collection of memory. Layers of experience. Syncopated. A delicate dance with the past, referenced against an eternal present. Or so I hope. I am a dream.

DH: I'm in the lab of Michael Persinger at Laurentian University in Sudbury, Ontario.

MICHAEL PERSINGER: When you asked to be in this experiment, when you explained it to me, I realised that you were on a quest. You were a scientist, a scientist at large. And so consequently, after the appropriate cautions were taken, we agreed to allow you to go through the experiment.

DH: Dr. Persinger and his assistant are putting a modified motorcycle helmet over my head. It contains a piece of electronic gear that stimulates the brain's temporal lobes with subtle, pulsed-patterns of electromagnetic fields - EMF. The 'octopus,' as it's called, can invoke an altered state of consciousness.

DIARY: Second Session. Afternoon. August 29th, 1997

LAB ACTUALITY/HILL: There's something definitely from the left. You know what...

LAB ACTUALITY/PERSINGER: What?

LAB ACTUALITY/HILL: It. It is a circular object. From right above my left...

LAB ACTUALITY/PERSINGER: Go ahead and describe it...

LAB ACTUALITY/HILL: It's...it's disappeared. Oh, no. It's back again...

LAB ACTUALITY/PERSINGER: See you in twenty...

LAB ACTUALITY/HILL: Yeah...

DH: During the second twenty minute session, I traveled through a series of emotions, felt strange physical effects, puzzling shifts in mood. I could feel the space. Hallucinations. A very odd landscape.

LAB ACTUALITY/HILL: Okay. There's sha... shaaa...shadows. Oooosh. Of, ah... Kind of eyes again. There's a feeling of pressure of someone slightly pressing on my eyes. Just there for a moment... Hands, er... I ...

LAB ACTUALITY/PERSINGER: Don?

LAB ACTUALITY/HILL: Yeah?

LAB ACTUALITY/PERSINGER: The sequence is over. We'll be coming in. Just relax.

DIARY: Later: Persinger told me his assistant came into the sound-isolation chamber. She said I was white as a ghost.

Persinger said he terminated the first session of the experiment after I went into a mild panic, even though I requested that I go on. It wouldn't have been ethical to continue, he said. Overall, I felt as if time had passed more quickly during this session. It also was kind of fun in spots. A departure from the first session, which replicated the terror I felt in the Rockies.

MICHAEL PERSINGER: You were in the chamber. We stimulated your brain with complex magnetic fields that contained very significant neural information. And you experienced a ghost. Fear. And all types of other profound experiences. But, you see. We were the ghost. We created it by applying that technology through your brain.

DH: The intensity of electromagnetic fields generated by Persinger's device

is little more than that of a hair-dryer. It's the kind of field that counts, not the intensity. The brain is slowly and continuously aroused to a perturbation point - kind of like great sex. The subtle pulsations magnify feelings - provide an 'emotional tag' - and amplify the brain's own experiences.

LAB ACTUALITY/HILL: Wheeew. Okay. There is light coming out from underneath the visual field. Yeah, right there. On the right. Again, the mirror ah... right.

My eyes are wide open. I'm seeing other eyes again, a pair of eyes looking at me. Approaching me. Yeah. Taking on very definite form...

MICHAEL PERSINGER: The types of experiences that we generate are a function of what side of the brain to which the stimuli are applied. And that's totally predictable because there are subtle structural differences between the left hemisphere and the right hemisphere of the human brain. And if we are affecting these subtle structural changes and these subtle structural activities, we would expect to find differences because the left hemisphere is tied to language and the sense of self. If we stimulate that we can get the kind of first person experience and meaningfulness. But if we stimulate the right side of the brain, we can get the right hemispheric equivalent of the sense of self which is the sensed presence; the sensation that another entity is beside you. That other entity, of course, is your right hemispheric equivalent of your sense of self.

DH: So, that explains my 'ghost' in the Rockies. Or does it? Charles Tart is a psychologist, and professor emeritus at the University of California at Davis. He's been following the work in Michael Persinger and his lab.

CHARLES TART: Well, you went into that laboratory with an expectation, a very strong expectation that this would cast light on the experience you had in that house. Now, I don't know how much the actual laboratory procedure affected your brain; it might have done it a little bit, it might have done it a lot. But you went in with a strong psychological set to then shape things. So it's quite possible that what happened in the laboratory to you produced some genuine effects in your brain. But what those were are very hard to separate out from the construction you then made out of it because of your expectations.

DEAN RADIN: I don't think its a delusion. Because after all if you have a similar experience, but you know that it was induced under conditions where it makes sense neurologically - we don't really have mechanisms underneath it, but kind of proto-mechanisms - well then it makes a lot of sense.

DH: Dean Radin. He's the author of *The Conscious Universe: The Scientific Truth of Psychic Phenomena*. Dr. Radin has investigated the wild frontier of science for AT&T, Princeton's department of psychology, the University of

Edinburgh, SRI International and the U.S. government.

DEAN RADIN: You don't have these feelings just randomly every third day, but only in certain locations, in certain laboratory context. Well, that's a beginning of understanding. It makes sense.

LAB ACTUALITY/HILL: There's a definite feeling in the pit of my stomach. Sigh. It's as if something very, very bad happened to me. Yuck! I know that feeling too.

MICHAEL PERSINGER: About fifteen minutes into the application, you were beginning to have electrical signatures that told us deep portions of your *thalamus* and *amgdyla-hippocampal* regions were beginning to send direct information into the cortex because we were picking it up on the electroencephlogram. Electroencephlographic activity primarily measures only the cerebral-cortical activity not the deep portions of the brain unless the information gets to the cortex.

DH: Dr. Michael Persinger.

MICHAEL PERSINGER: Every time you have a rush or a chill there was a very clear signature showing up over the temporal lobe, and to some extent generalized to the areas, which tells me there's a sub-cortical source. Once those rushes became more intense, you became more fearful. You began to feel the presence. You began to feel the activation which is typical of anxiety because we begin to stimulate the right hemisphere.

DH: Charles Tart.

CHARLES TART: I'm not doubting the electromagnetic stimulation affected your brain. But the big question how you interpreted that still remains primarily a psychological question.

Let's face it, our culture - and I speak of our whole Western culture now - does not encourage people to be aware of what we might call the supernatural or the psychic or the spiritual; it encourages them to repress it; it tells them this sort of thing doesn't happen. It shouldn't happen.

If it does it happen it probably means your crazy. So, naturally, people are going to suppress being aware of these experiences. They're going to happen less often to people because there's a psychological pressure to hold them down. And if they do happen, they're going to be explained away in ordinary terms - even if it's stretching ordinary explanations. Oh, I must have been ill! you know. It must have been the medicine I was taking.

We have all sorts of preferred explanation systems to make the spiritual side of things go away.

DIARY: Vancouver. "You think too much," cautioned Anila, a Tibetan nun. She makes a good point, as does Lama Kaldan. I asked him whether I live too much upstairs in my head. He agreed. In a pleasant way, as always. Intellect gets in the way of clear thinking.

DH: I am obsessed with coming to terms with our haunted house in the Rockies. Persinger's 'octopus' told me the apparition in the basement, the knockings, those feelings of terror, and the general oppressive atmosphere about the place - all of it - was likely conjured in my head. I can accept that. The device was plugged into a computer, and me into it. But what it didn't explain was exactly where those subtle energies – the electromagnetic fields which affected my temporal lobes - were coming from.

PAUL DEVEREUX: Your account is extraordinary in normal, everyday experience of most people. But when you've been exploring these areas for many years, as I have, it's pretty standard as a matter of fact.

DH: Paul Devereux heads the Dragon Project Trust, a world-wide team of scientists who study claims of unusual energies at prehistoric sites. He's also the author of twenty books on the subject. We're talking in New York's Central Park.

PAUL DEVEREUX: It probably goes back to Chinese traditions like *feng shui* of sighting places, tombs, homes, habitations. The house you had in the Rockies was obviously sited to what a Chinese 'geoman' would call bad *feng shui* because there were geophysical conditions there that could produce mood changes, affect your consciousness, it could even manifest geophysical light forms.

DH: Paul Devereux has a theory of 'earth lights.' It complements Michael Persinger's TST (tectonic strain theory). Persinger correlated reports of luminous events over many, many years and found the 'lights in the sky' and related phenomena clustered along earthquake faults. It persuaded him to theorize that tectonic strain was creating the conditions underfoot to release anomalous balls of light on the surface. This has been demonstrated when you put quartz, for instance, under great pressure. When it finally gives and explodes, a burst of light manifests - electromagnetic radiation too.

MICHAEL PERSINGER: And it's important to realise there's an interface between these two phenomena. In very, very active so-called haunt areas it's not unusual to see small balls of light, luminous displays, which are often if they're intense enough confused with and become a part of the UFO mythology.

MICHAEL STRAINIC: EM radiation, and other forms of radiation, can account for a certain subset of the reports we get.

DH: Michael Strainic investigates UFO sightings for MUFON, the Mutual UFO Network. He lives in Vancouver.

MICHAEL STRAINIC: I know a researcher in Oregon. Greg Long's done extensive research on orange balls of light which are probably the byproduct of EM radiation from the tectonic strain. And these can be seen as balls of light which actually appear to have intelligence behind them; they follow the terrain and so forth. This may account for some UFO reports.

CHRIS RUTKOWSKI: It is as least as likely that aliens are visiting earth as it is that electromagnetic fields are creating UFOs.

DH: Chris Rutkowski. He's in the extension department at the University of Manitoba. A former professor of astronomy, he's also a keen investigator of UFO lore.

CHRIS RUTKOWSKI: When I hear of somebody saying they were visited in their bedrooms last night by an alien that wanted to abduct them. There's no question they had a real experience, but the question is what really happened? The temporal lobe possibility is another viable explanation. So, I think EMF and TST are certainly possible theories, but in order to embrace them I think we have to go through a long process before we can do that.

LAB ACTUALITY/HILL: There's lots of twitching that's coming and going. And there's... like a... like I want to see something. It's not... in focus. It comes and goes. It's like... there's a desire there.

DIARY: If an unidentified flying object landed in your midst, and it didn't match your concept of what a 'flying saucer' was supposed to look like, would you see it? Could you?

MICHAEL STRAINIC: I think there may be a problem if there is something that goes radically against what we assume things are supposed to look like. We will re-interpret them. That's what the brain does most of the time – tries to make sense out of chaos.

Would we see it or could we see it? I think that is the question. Maybe some things are just beyond our perceptual ability.

DIARY: Landscapes are inhabited even when they're empty. Is it possible to know the extraordinary by the shadow it casts?

BEAT

DIARY: Las Vegas. Met with Dean Radin at his home; soft-spoken, very articulate man - looks kind of fragile. A stiff wind off the desert might

have an unfortunate effect.

DEAN RADIN: There's a possibility that some of the hallucinations and illusions associated with apparitional experience are probably related to the brain's purpose, in a sense, which is to create a stable reality. And if something compromises the brain's ability to do that - either through sleep deprivation or drugs or who knows what - the capability of being able to create that stable image will just begin to decline.

The metaphor, here, is the computer HAL from the movie *2001*. As we saw, when the memory of HAL was being pulled out, HAL's ability to speak and to reason and to do everything else began to decline as well. So, something like that is probably occurring because it's no coincidence that most apparitions - the vast majority of apparitions - are seen around three o'clock in the morning, either in the process of waking up or going to sleep or suddenly waking up, but in a non-ordinary state. In which case, you could say the model of reality being created by the brain at that time is no longer the ordinary state; it's not the ordinary model either. You're not dealing with ordinary reality - at least the way that you perceive it.

DH: So: my state was similar to HAL's, the computer in the movie *2001*. Stuff was taken away.

DEAN RADIN: Or put in.

In other words, the environment had changed from its normal operating procedure and context. And anything which changes the environment - whether its adding or subtracting or good or bad or who knows what - all of it will change the way that you perceive the world around you. That doesn't necessarily mean that what you're perceiving is illusory in the sense of not objectively real. But it does suggest that a large part of the affect associated with it, the feelings of profound meaning and awe and fear and all of the emotional stuff, is very likely to be an illusion as well.

You can see this often happens in psychic experience. Somebody will have a vision or see a ghost or something and the meaning associated with that is absolutely unbelievable and will change their life.

The question is if they're getting a visual illusion could there not also be an emotional illusion? And the answer is very likely.

DH: Arthur C. Clarke, the author of *2001: A Space Odyssey* has a theory:

"The human eye is a camera," he says. "It forms an image of the outer world on its sensitive screen - the retina - then transmits it to the brain. Could the system

sometimes work in reverse? So that the brain sends images to the eye, making it not a camera, but a TV screen."

Then believing would be seeing.

DEAN RADIN: Ordinary perception is a construction of partially what is out there and lots of what is inside you.

DH: Dean Radin.

DEAN RADIN: It looks more like a discussion with the rest of reality and agreeing upon something that ought to occur at the end - which is a magical idea. And that's why we're kind of uncomfortable with it from the Western scientific point of view because we don't know what to do with that.

DH: Pedestrian lines like "beauty is in the eye of the beholder" come to mind. How about the devil? In the eye of the beholder too? What about ghosts and goblins?

Michael Persinger.

MICHAEL PERSINGER: Fifteen years ago, we were evaluating Transcendental Meditation. And we had an experienced teacher. We were doing a routine EEG about fifteen, sixteen minutes into the session. And then she began to throw spikes and slow-wave. It was evident - at first I thought it was equipment error - I looked and it was spikes and slow-wave - clearly epileptic - emerging from the temporal lobes; primarily the right side.

At the end of the experience, she had concluded that god had been with her. The cosmic consciousness had been with her in the laboratory and that she had a profound religious experience.

I didn't tell her that at the time when she was having the experience, she was displaying electrical activity over the temporal lobe. The experience was so profound to me that I began to pursue the idea that perhaps god experiences and mystical experiences were clearly tied to transient electrical activity involving the temporal lobe.

LISTER: This is IDEAS. You're listening to *Haunted House, Haunted Mind* by Don Hill.

DH: I didn't set out looking for God. And I certainly didn't expect the presence of the Lord could make one feel so bloody awful (if that's what visited upon my former mountain abode). Maybe it was just my cultural conditioning, my imagination imposing a negative spin on an otherwise benign temporal lobe seizure stimulated by EMF in the local geology

underfoot beneath the house. Perhaps it could have been a wonderful, pleasant experience if only I had thought about it differently. Maybe I was just crazy with paranoia or something. Or maybe not. Paul Devereux.

PAUL DEVEREUX: Now: if we're looking at these places and if there are geophysical fields of various sorts, it may not be a direct hallucination. But auditory hallucinations are often triggered in these places.

SFX: Low, building thunderstorm.

DIARY: My uncle - the crazy one - he heard voices. And one day - a day that proved his undoing - he turned over the cash register in the local general store, shouting on about moneychangers in a backwoods town in northern Ontario. He was incarcerated - an asylum for the insane - never to come out again until he was buried alongside his mother and father. My grandma and grandfather.

I recognize myself in his pictures: the same gaze, the same penetrating look - looking for what's 'out there.'

DH: So what about my house? Perhaps there's a scientific basis to account for Stoney Indian lore about spirits throughout the Bow Valley – some beneficial, some bad - and how we, the living, should not remain in this locale unless we're seeking a spiritual vision.

And what about all the contemporary reports of hauntings, including a recent visitation by a ghostly apparition dubbed 'Lisa' at the Canmore Community Recreation Centre (of all places!)? Might there be a certain something working in consort with EMF, something a Tibetan lama might call 'bad karma' present in the landscape itself that could induce these visions?

PAUL DEVEREUX: This presence can be terrible, wrathful, fearful, demonic. Or god-like, angelic, beatific in one form or another. It can have positive and negative effects. But always powerful and always the sense of being from the other world. And that's what people would recognize.

So: there were places you did not go unless you were a powerful shaman who deliberately dealt with the dark-forces if you like. Or it would be the places where, perhaps, you went for your vision-quest; the more beneficial places if you like.

It's because of this interaction we see in early cultures a tremendous technology of consciousness, a tremendous understanding, a psychological mapping of these states that we're simply not used to.

DH: Some points on the landscape emit higher levels of EMF than others - caves, the tops of mountains, for instance, the very spots where mystics have traditionally sought extraordinary experience - the hiding place of

the gods. And perhaps the devil too.

Electromagnetic radiation generated by tectonic strain, particularly along earthquake zones, may well be fuelling the troubled spots on our planet - territory which perpetually hosts war. The Balkan nations, for instance, are situated in a high risk earthquake zone. Embedded within the landscape - unseen, unheard, but otherwise 'felt' - might some obscure force make you crazy, perhaps violent, without ever openly tipping its hand?

Does the Miracle at Fatima make more sense considering the geophysical landscape underfoot? Twenty-thousand people reported an extraordinary display of 'lights in the sky'; the immediate area is rife with faults.

As for my own ghostly encounter, the Bow Valley in the Canadian Rockies is home to five major geological faults, converging on a focal point at Banff. I'm convinced I felt something awful - certain I witnessed a 'presence'- the perception was very realistic.

MICHAEL PERSINGER: The interesting thing is the brain, particularly the temporal lobe, and deep within the temporal lobe the amygdala. And its primary function would predict that depending on how these environmental electromagnetic fields stimulated the brain you could get very pleasant experiences or very fearful ones.

DH: Michael Persinger

MICHAEL PERSINGER: It's going to be relatively easy from the point of view of the technology of the brain to stimulate fearfulness. In general, the negative areas are likely to be more common than the pleasant ones; the reason being is that fearfulness and intense fear and terror are the consequences of extreme stimulations of the brain. The milder stimulations, which are more difficult to get naturally - those are the ones that produce the more pleasant ones would be expected to be more infrequent just in terms of statistical distribution.

DIARY: In 1995-1996 there were 22 known suicides in the Bow Valley. That's well over five-times the average. What could account for this discrepancy?

MICHAEL PERSINGER: Because there's an area of the brain, the amygdala, which allows you to experience pleasure, euphoria, pleasantness, security versus terror and fear. And because terror and fear is the experience associated with the greatest most intense stimulation, it's more likely because of the ungraded stimulation in the environment that there would be more fearful areas than pleasant ones. But there would be pleasant ones.

DIARY: Vancouver. Anila McNeil, the Tibetan nun, told me about the 'energies' she felt during a retreat on the island of Delos, Greece. By the third day, she was hallucinating. "The roofs were growing, slipping back - rock holds energy," she said. "If you stay anywhere, just stay in one spot, things will start to happen."

DIARY: Cypress Hills, Saskatchewan. Sharon Butala (the author of *The Perfection in the Morning*) showed me several 'hot-spots' on the family cattle ranch. My first impression was we were atop some kind of burial ground; she disagreed at the time with my feeling, but later told me in Vancouver that I was probably right. That was what a native woman told her. Anyway, she showed me a small spot - a circle of stone - warned me not to step into it. She once did and got the overwhelming sensation that she had no business being there, that she must leave. Get out! A feeling of presence. EMF?

In a letter, I asked her to check it out with a compass, a primitive attempt to see if there was any magnetic energy to attract the point, or make it spin awry. She wrote back. No. "Sorry."

PAUL DEVEREUX: Ancient peoples had an intimate knowledge of their environment. As we know, in the rain forest, the Indians know everything about every growing thing around them. What can be used for healing. What can be used for visions and so forth. And in just the same way we should expect them to be very observant about changes in mind-state, different affects, different phenomena that might occur near this rock, on that mountain peak, by that river, near that spring or whatever it might be. Their landscape was inhabited by spirits.

So: when we look at ancient sites, really we're looking at a spirit geography that maps out this understanding of the landscape.

We might now might translate the word spirit as a geophysical phenomenon. But it's the same basic thing and it has the same effect on the mind, the spirit, and the psychology - the aesthetics of these places are also important.

DIARY: Like magnetic tape, why wouldn't the earth be a recording and storage device? How could it not be?

DH: Or maybe when I saw the 'ghost,' I was being influenced by people close to me, in ways not yet understood.

My daughter? There's a theory that poltergeist phenomena is sometimes attracted by adolescent females.

Perhaps my wife Anne. Or my son.

Michael Persinger.

MICHAEL PERSINGER: We do know that complex fields can be generated from the body, from the muscles, from the brain itself. Intensity is always an issue. But if the environment is optimal and we have individuals who are highly sensitive in terms of brain activity and the capacity to discern these fields. Then it is very likely - both in terms of neuroscience and in

terms of empirical observation - that these individuals would influence people around them, particularly in close proximity.

ANNE HILL: Our brains weren't just stimulated because the dog heard that sound too.

DH: This is my wife Anne.

ANNE HILL: It wasn't just in our head. The dog heard it. He started to bark like crazy when he heard that knocking. We heard it too. And the dog heard it as well because the dog woke us up with that knocking. He was barking like crazy. I've never seen the dog bark like crazy.

The other thing too. When we were in that house, the dog would go downstairs while I was upstairs watching TV and he would start to bark for no apparent reason. And I would go down and do a tour of the house and there was nothing going on outside the house or in the house.

DH: Odd phenomena like hauntings are sometimes reported in locations that run over or are near underground streams and sources of water. The sunken earth under the house in Canmore, and the proximity to the water table from the Bow River, might have created the conditions for geomagnetic activity and a subsequent release of EMF, which would induce a feeling of a malevolent presence. But, it still doesn't explain the rapping which frightened Anne and me and the simultaneous barking of the dog.

MICHAEL PERSINGER: The report that you gave me would be consistent with an increase in tectonic strain associated with differential water levels, hydraulic loads on the local river system. You happened to be living in a place that's a focal point and as these phenomena occurred - and they would have occurred statistically - it would have been an unusual place with all types of features to them. And sometimes there would be more intense stimuli than at other times. You effectively walked through and into one of these transient fields that stimulated your brain that produced the experience of the haunt.

DEAN RADIN: Every so often, I get calls from people who are having poltergeist activity in their house.

DH: Dean Radin.

DEAN RADIN: And what I've noticed is that a neighbour won't tell the neighbour next to them that this is happening because it's either frightening or they'd be embarrassed to mention it. But I get those calls, and have found that a number of times that neighbours within a block of each other, who don't know each other - I can tell from where they're calling that they're in the same general vicinity - out of the blue, they'll start talking about poltergeist activity. And they'll interpret it according to whatever culture they come from, but it's the same kind of phenomena.

So, I'm thinking there's something physically located. It could be underground, it could be above ground; we don't know what it is. But the environment has changed and it affects us because we're electromagnetic creatures. And we will interpret it according to how we wish to interpret

it, in a sense.

MICHAEL PERSINGER: If the phenomena is primarily electrical in nature, odd smells will occur - quite measurable odd smells, not indirect odd smells. And odd tingling sensations with the feeling of a presence. But then, of course, there's the interaction with the brain that then produces the richness of experience - and the fear that produced the haunt.

The interesting thing about the haunt it's almost always associated with fear. Whereas the poltergeist phenomena rarely is associated with fear on the part of the 'experient'.

DEAN RADIN: If you look at poltergeist activities, especially a few cases where really loud noises, deafening loud noises - but a person two feet away won't hear it. And objective equipment won't pick up anything, suggesting that these loud crashing noises which are deafening are in the head somehow. And they're localized in the head.

People, first of all, will probably be subjected to some kind of external influence and they interpret it differently.

In medieval times, it was interpreted as the dragging of chains. And people may have even eventually seen a ghost dragging chains because that's what they knew. Today, we might think of it in terms of a UFO landing on the roof because we have some physical effect that's occurring, but we then attribute it to all kinds of different things.

MICHAEL PERSINGER: Ah, yes. On Wellington Crescent in Sudbury there was a report of unusual phenomena occurring. Like most of these phenomena, it was communicated quietly because people are afraid, particularly professionals are afraid to be called crazy - to have their reputations adversely affected.

So we basically recorded the information. We went in with a seismograph, an EM detector - electromagnetic detectors - and a few other pieces of equipment to accommodate for possible sleep-walking and malingering, other types of artifacts or confounding variables and found there were clear electromagnetic surges taking place in the bedroom within which people were experiencing the haunt-like phenomena.

Some people saw a ball of light. Others felt the presence of something. Still others saw apparitional outlines. What was particularly interesting is that when these phenomena occurred the experience was so fearful that people would leave the apartment - run from the apartment. And we could tell by the impact on the floor that with the EM surge on our equipment that indeed these people were leaving; their verbal reports matched the actual data.

Then we began to realise that perhaps many types of haunt phenomena maybe natural electromagnetic fields, transiently, briefly generated - for about ten seconds - focused; in fact, these fields were enough to bend the needle on our recorder. We estimated maybe two-hundred gauss which is quite significant for a natural phenomena. And interestingly enough at the same time, the area in Sudbury was under tectonic strain because that was the same year, within the same month, as the only major UFO flap in Sudbury's history.

DH: It's now within the realm of scientific possibility to create an 'imaginary memory.' But the notion of a counterfeit memory, an experience one thinks is personally unique, yet isn't, smacks of the best propaganda, a hidden persuader that is completely invisible.

MUSIC: oppressive

DH: Imagine yourself in the grips of a pitched battle. Death or life is but moments away. Suddenly, your opponent zaps you - your temporal lobes are bathed with a targeted blast of EMF - forcing you to succumb to an even greater terror, your mind. Military 'black science' has long been rumored to be working toward such weaponry, but it's the next generation of computer gaming software that's more likely to bring it home. Present day 'virtual reality' is a mere toy against proposed systems which stimulate the big theatre in your head.

MICHAEL PERSINGER: The difference between the present technology and virtual reality is the fact is that when you experience virtual reality you know that it's not yours - that it's not coming from your brain - somebody is generating it. But, if you begin to tap the very neurons that generate your sense of self, you can't tell the difference between a real experience, your own experience, and that be created by an external force.

So, the application of this technology in terms of mind control is powerful because if you access those neurons that generate your sense of self, it is real, and it is perhaps the greatest of all fearfulness. You can access those neurons that control your sense of dissolution, your fear of death; your fear of your loss of self. And if you access those neurons it would be totally devastating and incapacitating.

That's a direct affect, but it doesn't have to be that powerful. You can use simple conditioning. For example, suppose you use an ordinary television newscast to indicate that something adverse is happening in the world due to a particular country or a group of people. If that night the entire population was inundated with relatively crude patterns - electromagnetic patterns - generated by more or less conventional radio frequency technology that would make people feel uneasy. And you paired the particular newscast information - those particular people or that country - with that uneasiness, and that was done two or three times, then your gut responses to that country or to that people would be adversely affected.

We have the technology now, in fact, we have the environment now where the amount of complexity generated from ordinary equipment - cell phones, communication devices - have the potential to statistically generate the complexities that will generate alterations in consciousness and perhaps even produce unusual experiences.

Let me give you an example. Thirty, forty years ago, most of the patterns generated in the environment were sort of crude, simplistic 60 hertz fields. The brain habituates to 60 hertz fields, particularly the weaker the fields very quickly. But now we have all types of patterns being generated; pulsed here, pulsed there. And now we have the capacity to generate what are called beats - or subtraction effects - which means you can generate a new language that emerges from this apparent noise. And this new kind of information that's emerging from this noise, these 'beats,'

these subtractions, would have the capacity to actually tell the brain to do certain things.

In other words, if we had these sequences that are the equivalent of telling the brain to be sick, to telling the brain to experience a particular phenomenon, now, we have the capacity to do it. And it doesn't require that much energy.

DIARY: The Soviet Union invested considerable effort in the search for technology to influence people at a distance. The Russians investigated microwave generators. If you can change somebody's mind you don't need to drop a bomb.

DH: I resolved one enigma - the ghostly haunt now made sense to me. But, typically, answering the one question produced many others.

Why does the application of electromagnetic fields to the temporal lobe give many people what appears to be a deeply mystical, religious experience? Why is this mechanism of mind there? To what purpose?

Michael Persinger.

MICHAEL PERSINGER: From a functional point of view, the importance of the God Belief would be that it allowed us to adjust and to survive as a species. Of course, we don't know how it occurred and how it emerged. But we know that it's tied to the same regions of the brain, the same process as the sense of self; there's an intricate component from the frontal lobes, and certainly from the frontal areas for integration. But the sense of self was probably a fragile process that emerged at the same time that language became important. And we can imagine what would have happened if the person suddenly realised - that first proto-human - who suddenly realised 'I am a self,' and 'I have a future.' But I also will die in the future. That anxiety would have been so incapacitating, so paralyzing, that the human sense of self may never have emerged.

So, I suspect what happened, there was another process that took place that said, 'there is infinity,' and 'there is a sensed presence that's infinite.' And if you align yourself with that and if you define yourself with that, there is no end. And consequently there is no death.

DIARY: Today, while standing in my kitchen, of all the mundane places to be, I had this inexpressible feeling that I could no longer believe in a god.

MICHAEL PERSINGER: It now becomes evident that what we call ourselves is nothing more than an aggregate of neurons firing in a particular electromagnetic pattern. And that if I recreated that pattern I could recreate the sense of self. We have the technology to do that. That suggests that basically what we call 'ourselves,' the human sense of self, is nothing more a pattern of electromagnetic sequences generated within the brain which we can reduplicate with the appropriate although very modern technology.

That means we can also change it. That means what we call our 'self' is a sequence of memories, a compilation of memories. And that means potentially for those compilation of memories could be stored, and that means the sense

of self could be stored. Therefore: I think for many people that's frightening because that means themselves as a special creation, a special idea, or something over which they have control is really an illusion.

DIARY: Larry Donovan called with a holiday greeting. He asked, "how's your spiritual growth?" I told him, I had it removed. It was benign.

SFX: Upscale restaurant

DIARY: The Banff Centre. Dining Room. Spoke with France Trepanier, visiting from the Canadian Cultural Centre in Paris. She was clearly agitated by the implications of our conversation. "This is not new stuff," she insisted upon learning about Persinger's research. "It's rediscovering - building on the foundations of mystic traditions."

I asked if she was angry with me. No, she said. But the implications - no God out there mediating human existence - rattled her.

"But don't you want to know?" I said.

LINDA JAINE: I think what happened with you is that when you were in your home is that you actually did see an apparition or spirit.

DH: This is Linda Jaine. A Cree lawyer and former professor at the University of Saskatchewan, she's now an education consultant.

LINDA JAINE: What happened in the lab is that you were stimulated and the memory was brought back to you. So, I don't think that the spirit was actually brought back at that time, but your memory, your remembrance of it, was brought back in the lab.

ANNE HILL: I think that our brains are wired for those experiences. That's the way we're built. We can stimulate our brain's virtually or we can stimulate them in other fashions. But what was causing the stimulation in the first place? Who turned on the switch? And it's something we can't answer.

DIARY: Must be careful that I don't exchange one god explanation for another - the god of science.

CHARLES TART: Any particular 'self' may be very useful at times. Any particular state of consciousness may be very useful for certain kinds of things. But our totality needs to be bigger than that.

DH: Charles Tart.

CHARLES TART: There's a part of you that had that experience of seeing that apparition and feeling terrified. But if that was only part of you, you wouldn't be here today. There's another self that says, This is an interesting experience; I wonder if there's any kind of explanation for it that I can find; I wonder what it means in terms of a large framework. Those other kinds of 'self' give you the perspective, so that you're not caught in any one particular aspect of it.

Intelligence is being able to take multiple perspectives on things, instead of always being caught in any one particular perspective.

DH: The house has been bought and sold and bought and sold again since we lived in it.

ANNE HILL: A lot of people that used to come to the door had lived in that house; there was an incredible amount of people that had been through that house.

I remember one time in April, a lady came by and said, "ah, yes. I know about this house." Everybody knew about this house. She says, "I lived here, years and years ago." And I thought, my god maybe I was one among many having these experiences. I never talked with these people about their experiences though.

DH: September 10th, 1997. On the move again. Loading up a Ryder truck, this time bound for Sudbury.

I stopped by the house - a bed & breakfast now! Spoke with a German fellow, the new owner on the deck. His wife seemed distraught, irritable. Talked to herself. She looked really tired - rough around the edges.

The house looked lovely. I knew better.

I told the man who I was. I asked if I could have a look and he showed me around. I felt a rush as I passed through the front door, up the back of my spine.

Should I tell them? Language was a barrier. And my intuition told me, they wouldn't believe me. So, I said good luck. And good-bye to Canmore.

END OF PART TWO

LISTER: *Haunted House, Haunted Mind*. Part 2. By Don Hill...

Haunted House, Haunted Mind, by Don Hill, was produced by Max Allen, with Dave Field and Lawrence Stevenson. I'm Lister Sinclair.

Transcript & Content: © Appropriate Entertainment Ltd. (1997)

For permissions contact the author: hilldon@telus.net