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Hyperbolic: Divining¹ Ayahuasca

Rich Doyle

Twenty minutes in, like clockwork, the visions begin. They are strong but I was expecting them this time.

*Norma, the vegetalista who so astonished me with her care, skill and knowledge during my first ceremony two nights prior, had packed a big bowl with a knot of the local *Nicotina Rustica* and had blown curling, whistling smoke over a plastic liter bottle filled with an opaque orangish liquid I knew to be ayahuasca, the potent brew of tryptamines and MAO inhibitors that has been prepared in the Upper Amazon for perhaps sixteen thousand years. I knew it to be ayahuasca, since I had, after all, helped mix it the day before, pounding a kilo of the soft woody vine of fresh *B. Caapi* liana and tossing about fifty green glossy leaves of *P. Viridis*, a DMT-containing relative of coffee, into the black cauldron simmering over a wood fire on the shores of the Yanayacu River, one of the eleven hundred tributaries of the Amazon. Back home this could be a felony. Here, I now understood, it's a medicine.*

*The smoke whistle is a trope, a refrain that often begins or ends an *Icaro*, one of the beautiful songs sung and whistled continuously throughout the four-hour shamanic ayahuasca ceremony. The smoke and its whistling inflection act as protocols to open up a spirit portal, an active earth surface, while keeping unwelcome entities—what I think of as affects—at bay. After my first session, I had also learned that the songs serve to orient the ayahuasca drinker. The songs mime and sample the birdsong of the region, an ecosystem with over two thousand species of birds and the polyrhythms of chatter from over 500,000 insect species. I held onto and was held by the *Icaros*, giving intense thanks for the whistled orientation.*

I took the coffee mug and fearfully eyed its contents. My first contact with ayahuasca had been perhaps the most difficult experience of my life that didn't involve somebody (else) dying. For I had indeed palpably and unmistakably died—the accounts of ego death were not at all greatly exaggerated.

Nonetheless, here I was, two days later, again looking into the flickering, refracted and reversed image of myself that I think I spied in the mug lit only by candlelight in the Amazonian night. The liquid was dark and iridescent, but I now knew that tales of its horrid flavor were something like an urban legend from the rain forest. My first gulp of ayahuasca tasted like nothing so much as my first pint of draft stout slurped in Ireland at the age of seventeen with my now departed brother.

Still, I was fearful and full of respect for this plant intelligence with which I had seemingly interacted. The mug appeared nearly two thirds full, easily as large a dose as the first, most difficult, night. I had secretly hoped for a tinier tourist dose, but had no choice but to drink down the cup I was offered.

As a result of my extensive research into the ceremony (as well as the work of John Lilly), I carefully addressed the ayahuasca to orient my journey. Having toyed with the I Ching as a writing tool, I was comfortable posing questions to non-human entities as a rhetorical experiment, a practice of rhetorical invention that seeks interaction with other forms of order and its disruption. Among other things, I asked how I could possibly integrate the knowledge from my first journey into my life back in North America. Then I threw it back like a fat shot of tequila, opening my throat to the entirety of the flow.

Like I said, twenty minutes of mediation later and the visions began, the same as the first night. A pixilated doorway appeared in my closed-eye visuals and I went through it. Here goes, I thought to myself—what have I done?

Haptic Gaze Smack: Ayahuasca Pilgrims in the Rain Forest

This specially designed tour is for those serious seekers who long to have a direct experience of other dimensions of themselves and the universe.

—Ad copy for Soluna Tours

Iquitos, Peru's largest jungle city of 500,000, cannot be reached by road. The pilgrim's route toward "mother ayahuasca," the ecodelic brew prepared for millennia by Upper Amazonian shamans, usually begins with a boarding pass and a security check.

With great quotidian efficiency, guards sort through twined boxes covered in tape, crates of wool, and soft drinks toted by the indigent family in front of us, and then wave my radio producer through. Fears that his recording equipment would be the occasion for a border hassle turn out to have been as unfounded as my decision to wear shorts on a flight to Lima in August. The other passengers had the decency not to laugh, but I envied them curled and coiled under the tiny airline blankets shielding them from the aggressive air conditioning, and they were ready for the chilled coastal morning when we arrived. An hour and a half after we shuffle through customs, bleary eyed and sniffing, our plane is soaring over the Andes. Iquitos announces itself through a green labyrinth—the Amazon and its tributaries begin their fractal “S” fifteen minutes before we are due to land. The pilgrims are greeted by handlers, guides to help us navigate the impoverished but quite friendly streets. The ubiquitous moto taxis of Iquitos sketch a lattice work with their routes through the dirt grid, and the two stroke engines play a layered, rhythmic soundtrack over broken—very, very broken—Spanish, as they transport us to the waiting canoe, prepared for a practiced, motorized drift toward the camp of an ayahuasquera. There, one will drink a noxious and viscous liquid and begin the interdimensional journey, which often starts with vomit.

Finding ayahuasca in Iquitos is not difficult. One does not need a sense for occult locales to locate it—it is, according to anthropologist Marlene Dobkin de Rios, an integral part of the medicine of the region. But the pilgrim/tourist who seeks the enlightenment of the yage way of knowledge has probably begun training well before the departure gate. Or should have. For by all accounts, ayahuasca (a potent admixture of various DMT and Monoxidase Inhibitor containing plants found in the region) is hardly a recreational drink. Like other ecodelics, ayahuasca can yield very different kinds of journeys, depending on the “set and setting” of the tea drinker, including programming offered by curanderos in the form of Icaros—the rhythmic and often whistled songs that accompany and guide the tea drinker on her journey. Anxious, even terrifying trips are not uncommon, and unlike the legendary brown acid of Woodstock, it is usually not the psychedelic agent that is the ultimate or even proximate cause of the distress. The problem, the drinker discovers, is *the self*, which must give way on its attachments if it is to abide the massively parallel consciousness induced by ayahuasca. This parallel consciousness is often presented as a multitude of entities and forms for whom death is a transition but not a destination—“Ayahuasca” means

“vine of the dead” in Quechua, and is sought out for its ability, among other things, to erode the very distinction between the living and the dead. But to abide this parallel presentation, an enormous flow of information not verifiable in the serial time of the body, the pilgrim prepares the self for its momentary disappearance through a culling of the self and its wants. Each pilgrim begins with a regime of selective self-negation or denial: the would-be interdimensional traveler must fast prior to the ayahuasca ceremony, or face the wrath of a possible inadvertent serotonin crisis provoked by a piece of cheese or chocolate and their MAOI ingredients.

Some will, of course, rely on chance to be their shaman: if the mood is right, they will drink whatever disgusting beverage is put before them. But most pilgrims seeking out the ayahuasca experience in the Upper Amazon will have been drawn as much for the context as the content. The plants that make up classic ayahuasca are legally and readily available on the Internet. Recipes abound on the Web that enable would-be ayahuasqueros to concoct brews out of plants that grow readily and widely around North America and Europe and Australia.² Some contemporary ayahuasca drinkers even create the admixture entirely through pharmaceuticals—so called pharmahuasca combines MAOI inhibitors (such as the prescription anti-depressant Nardil) and a source of DMT, the reputed active ingredient of most brews and an endogenous product of the human brain.

The proliferating and extensive literature on ayahuasca seldom fails to inform the reader that the brew is essentially a mixture: a plant like *Baanisteria Cippi* (yage, “force”) is needed to block the human gut’s destruction of DMT, and a source of DMT (such as *Psychotria Viridis*, a relative of coffee, “light”) needs to be potentiated. But given the well-established importance of programming to ecodelics, there is at least a third, crucial component to the experience, one tuned to the legendary accounts of modern psychonauts such as William S. Burroughs, Terrence McKenna and innumerable anonymous posters to the Internet: the ecosystem, knowledge and spirituality of the rainforest.³ What draws many of the tourists seeking the ayahuasca experience in South America is a unique, albeit globalized context of an erudite and healing shaman guiding visions in a vanishing rain forest, the very habitat of the alkaloid exuding plant allies. This is most certainly what is being sold in ayahuasca tourism, as a glimpse at websites offering these trips makes clear. In this sense, a look at ayahuasca tourism helps us understand the nature of contemporary tourism in general: Why do globalized citizens bother to go anywhere in an increasingly interconnected universe? With my bare legs, surrounded

by bundled passengers, perhaps I sought a capacity to sustain all of the interconnection, the formation of a commons.

Pilgrims to an apocalypse, ayahuasca tourists are, nonetheless, tourists. And they bring with them the penumbra of Western consumerism even as they seek enlightenment through an older and perhaps more sustainable mode of being. Already ecodelic, the ayahuasca tourist has become sensitive to all of her inputs and outputs: the diet is begun two weeks earlier, a cautious tourist wondering about the body's chemistry as cheese begins to appear as waxen lard, a repulsive leaden block throwing images of a future serotonin crisis right into my gourd.

And then there were the shots and pre-emptive malarial dreams induced by the Lariam, and deliberations over the proper concentration of Deet, the military grade mosquito repellent. Reading through the websites and browsing the travel section in a Barnes and Noble megastore, it sometimes feels as though I am surrounded by contradictory instructions and imminent insect assault. Back in my house, I stop, smoke a joint, reflect. I get inside my mosquito netting bivouac and just breathe, wondering if the green of the jungle will smack my vision with haptic force. I can still recall the stunning, overwrought precision of the world revealed to me in fifth grade, when I was first fitted for glasses. Snapping into focus, the world suddenly became all angled, distinguished, a sharp and angry crystal. Everything was about to slice me open, so fine and well honed were these new lines bent out of myopia. Would the Amazon hit me with this haptic gaze smack? At seventeen I visited Ireland *en familie*, and learning to drink Guinness with my brother, an athlete of the bar stool, playground, and bong, my eyes seemed to get just a little wider as they were stretched out by the force of the almost bioluminescent green of the land, a wind tunnel for color vision.

Ayahuasca Hospitality or, Distributed Drug Action

If ecodelics manifest a capacity to be affected by an environment, then what kind of effects would the Upper Amazon have on an ayahuasca drinker? The British explorer Richard Spruce, writing about his 1852 visit to the "Amazon Valley and Orinoco," responded to "accounts given by travelers of the festivities of the South American Indians, and of the incantations of their medicine men," sought out a "feast," and was sufficiently overwhelmed by

the hospitality of his hosts that he was unable to complete the ceremony. As a gesture of welcome, Spruce was presented with an enormous cigar, “2 feet long and as thick as the wrist,” and “etiquette demanded that I should take a few whiffs of it—I, who had never in my life smoked a cigar or a pipe of tobacco” (84). After puffing and (one can only imagine), fighting off a massive coughing jag, Spruce writes that he still wanted a full dose of ayahuasca, but was not up to the sheer simultaneity of this hospitality protocol, which was of the parallel rather than serial sort:

I had gone with the full intention of experimenting the caapi on myself, but I had scarcely one cup of the nauseous beverage, which is but half a dose, when the ruler of the feast—*desirous, apparently, that I should taste all of his delicacies at once*—came up with a woman bearing a large calabash of caxiri (mandioca beer) of which I must needs take a conspicuous draught, and as I knew the mode of its preparation, it was gulped down with secret loathing. (84, italics mine)

After the beer and the secret loathing, paradoxically secreted through an opening—the obligatory production of hospitality—came the enormous cigar, which was anything but just a cigar, followed by a large cup of palm wine. Spruce goes on to suggest that the dose of ayahuasca was crowded out by “a complex dose,” through which he approached something like group mind in the form of events that might be, by the reader, “readily understood”:

[. . .] it will be readily understood that the effect of such a complex dose was a strong inclination to vomit, which was only overcome by lying down in a hammock and drinking a cup of coffee which the friend who accompanied me had taken the precaution to prepare before hand. (84)

Spruce, overwhelmed by an excess of hospitality, recovers with the help of more, “drinking a cup of coffee which the friend who accompanied me had taken the precaution to prepare before hand.” What is the nature of such a “complex dose”? First, note that while Spruce is the model guest, accepting the good things put before him, he nonetheless refuses an exchange: he overcomes the inclination to vomit. This vomit is, however, part of the ayahuasca’s “dose”—ayahuasca’s very action is implicated in its capacity to purge. That is what ayahuasca “gives” you—a capacity to open. Indeed, “dose,” as we find in the OED, is given to us by “dosis,” which is quite simply a “giving,” and to be dosed with ayahuasca means to be given the capacity to give (up) the contents of an interior. German toxicologist Louis Lewin, whose invention of the discipline occasioned his inquiry into various “phantasica,” includes vomiting as part of the very action of ayahuasca:

If the stomach and small intestines are empty the passage of the drug into the lymph-tracts takes place much more rapidly and with greater force. These conditions are realized when caapi is consumed in the usual manner, because certain doses of the substance give rise to vomiting, which is desirable and to a certain degree necessary, as a preparation for the final action on the brain. (117)

Indeed, so connected is ayahuasca's action to purging that it is sometimes difficult for drinkers to keep the brew down long enough to have any action other than nausea. This gift that spawns further giving, then, is not simply an effect of the allegedly nauseating *flavor* of the (extremely variable) ayahuasca brew, but is instead the very *action* of the mixture on a human drinker.

This infinitive, "to purge," often presents itself as an imperative to ayahuasca drinkers. Among the crowd of visual conventions found repeated in the Peruvian Painter Pablo Amaringo's work are jewelled cities of numinosity, converging rainbows of twisting triple helical anaconda assemblies, green feathered bird men in rapt discussion and wearing belts, Numerous Ladies of the Reptilian Rainbow Feather With Ceramic Pots Balanced Upon Their Noggins, flying saucers, DNA, and men gathered together in a common and thoroughly violet projectile vomit. Spruce failed, though, to let go of his interior, to form such a commons, to actively relinquish his absolute difference from the outside. To do so, he would have had to submit to the inclination to vomit, an inclination which must itself be part of any scientific or otherwise useful model of ayahuasca drug action. It is in this sense that the self is an aspect of the "apparatus" of any inclination to know ayahuasca: the assemblage of observation entails massive attention, in a more than cognitive way, to the stomach and small intestines. Such attention paradoxically requires the self to recede from the field of observation, an involution analogous to the involutions and invaginations of embryological development. Here, rather than extracting and representing information about the external world, the exploration focuses on the interior of the explorer himself. Galactic in magnitude, this interior presents as much complexity and diversity as the external world. Perhaps most crucially, this involution—the transformation of the interior into the site of exploration, an interior whose itinerary leads to a vanishing point, spiking toward infinity—renders difficult if not impossible any simple delimitation between the explorer and the realm explored, creating a feedback loop that spikes toward infinity. Psychonauts who *have* formed a commons with ayahuasca and thus opened themselves toward an investigation of themselves with it, often treat this spike toward

infinity with the language of the sacred, as in the naming of ayahuasca as an “entheogen,” an agent that awakens the divinity within.

And yet even such a coinage perhaps unnecessarily preserves the very distinction between inside and outside at stake in ayahuasca drug action. And to simplify matters further as we explore the complexity of divining ayahuasca’s action, contemporary treatments of the irreducibility of even the simplest algorithms offer a map for this spike toward the infinite that does not yet require the resonance with a monotheist culture enthralled with a fundamentalist understanding of *theos*.

In accord with the continual re-discovery of the role of programming in psychedelic experience, Spruce discovers that the action of the brew is not reducible to itself. It is in this sense that it must be *divined*. To actualize Spruce’s “full intention of experimenting the caapi on myself,” he would have to actively give up control, give up his minding of the borders between inside and outside. Perhaps it was Spruce’s sense of propriety, an understandable desire to be a polite, non-vomiting guest, that prevented him from truly being a guest to the host’s hospitality.

Hence the *complexity* of the dose downed by Spruce does not decrease through the intake of a cup of coffee proleptically prepared, but instead undergoes a qualitative change: subject to a sudden dissolution, the difference between Spruce and the Upper Amazon was re-established through the (shamanic?) application of another plant, a relative of the chacruna with which the ayahuasca was likely prepared: coffee. Spruce, whose very name suggests the agency of plants in his own life, did not receive the gift offered to him by this plant assembly because he blocked it with another plant tonic. This opening requires an action—releasing the Self from the throttling embrace of the self by minding the borders of the body in a non Euclidean fashion, forming a commons. Spruce forms a commons, but it is with the familiar one: his friend. The biologist Robert Rosen offered an appealingly simple definition of complexity that is in accord with Spruce’s non-encounter with ayahuasca: “A system is *simple* if all its models are simulable. A system that is not simple, and that accordingly must have a nonsimulable model, is *complex*” (1). And yet though it looks simple, Rosen’s own definition here is, of course, complex, since as a model that we might deploy to differentiate complex from simple systems, it must be tested, used, fathomed, broken, mended, tinkered back into existence. Indeed, this is no doubt how Rosen fashioned his model—by trying it out. Complexity, the ongoing accumulation of novel dissipative structures, is an evolutionary

phenomenon, and hence is constantly being hacked. One such hack is stigmergy, the use of models from evolution.

Spruce samples Manuel Villavincencio, a geographer whose 1858 description of ayahuasca oscillates between the first person and third person:

This beverage is narcotic, as one might suppose, and in a few moments it begins to produce the rarest phenomena. Its action appears to excite the nervous system; all the senses liven up and all faculties awaken; they feel vertigo and spinning in the head, then a sensation of being lifted into the air and beginning an aerial journey; the possessed begins in the first moments to see the most delicious apparitions, in conformity with his ideas and knowledge: the savages (apparently the Zaparo of eastern Ecuador) say that they see gorgeous lakes, forests covered with fruit, the prettiest birds who communicate to them the nicest and the most favourable things they want to hear, and other beautiful things relating to their savage life. When this instant passes they begin to see terrible horrors out to devour them, their first flight ceases and they descend to earth to combat the terrors who communicate to them all adversities and misfortunes awaiting them. (Qtd. in Harner, 155–156)

Yet if one “might suppose” that the beverage is “narcotic,” one does so only under the weight of an enormous linguistic tradition. For immediately, without a rest, Villavincencio, “awakens” to ayahuasca’s capacity to “excite,” “liven up,” “awaken.” This awakening is followed by an enormous compression: in an “instant,” “they see gorgeous lakes, forests covered with fruit, the prettiest birds who communicate to them the nicest and the most favourable things they want to hear.” Even an investigation of what one “wants to hear” would fill a lengthy narrative, yet all of this, for Villavincencio, transpires in an instant which becomes suddenly horrific, if equally saturated with “communication.”

About a century later, William S. Burroughs followed Spruce and another explorer of plant habitats, Richard Evans Shultes, to the Upper Amazon in search for yage or ayahuasca. Burroughs sought a clue to the killer of his wife Joan, shot dead in a game of “William Tell” in Mexico City. Burroughs, of course, held the gun, but what he sought was the “final fix,” an experience of telepathy wherein he might comprehend and “write his way out” from the “bad spirit” that pulled the trigger, the Third Mind. It is this sense of ayahuasca acting as a portal to another dimension that inflects Burroughs’ deployment of the cut-up in response to yage. Only a montage could yield a sense of the irreducible non sequitur of yage. Writing to Ginsberg, Burroughs’ final letter in his search for the final fix reveals that yage is “space-time” travel.

Ultraviolet Communication

In the mental dimension, in contrast to the physical, the all-pervasive experience of absolute certainty does not require further verification and will be structured according to current mythology or the belief system of a St. Francis, Pascal, or Ramakrishna. What is one man's loss of freedom, therefore, may be another's gain in creativity.

—Fischer, "Cartography" (901)

It is difficult to discern the genre of *Invisible Landscape*, heterodox in its insistence on an organismic and holistic view of living systems, this 1975 text co-written by Dennis and Terrence McKenna nonetheless treats living systems as dimensions accessible to an informatic vision of life. Part systems science, part explorer narrative, part trip report, this admixture text nonetheless echoes classical scientific style with its use of the passive voice and its treatment of ayahuasca as a visual prosthesis for a scientific gaze:

During the course of our investigation of the shamanic dimension, our attention was drawn to a report of *ayahuasca* usage among the Jivaro (Harner, 1968); the shamans [. . .] are said to produce a fluorescent violet substance by means of which they accomplish all of their magic. Though invisible to ordinary perception, this fluid is said to be visible to anyone who has ingested the infusion [. . .] this suggests that ayahuasca may enable one to see at ultraviolet wavelengths. (95)

Compare this passive voiced observation, where the McKenna brothers' attention is, like Spruce's, "drawn" by something outside of themselves, to the famous opening of *The Origin of Species*, where Charles Darwin's gaze, "much struck," can hardly avoid the "mystery of mysteries":

When on board HMS Beagle as a naturalist, I was much struck with certain facts in the distribution of the inhabitants of South America, and in the geological relations of the present to the past inhabitants of that continent. These facts seemed to me to throw some light on the origin of species—that mystery of mysteries, as it has been called by one of our greatest philosophers. (65)

Struck by the facts, Darwin spends several hundred pages listing and diagramming, in exquisite detail, traits and their variation over massive and impossible to conceive geological time. While Darwin's "gradualism"—both rhetorical and evolutionary—is legion, it is worth noting that his first paragraph immediately alights on his (recursive) quarry: the "mystery of mysteries." By comparison, the McKennas are rhetorically restrained: the "magic" of the

shamans, while not marked by incessant scare quotes in the McKennas' text, is quite simply data from a report: "they are said" to produce a violet substance with which they accomplish their magic, just as Spruce (whose papers were edited after his death by none other than Alfred Wallace) responded to "accounts given by travellers of the festivities of the South American Indians, and of the incantations of their medicine men." While the notion of a shamanic "dimension" may provoke a double take in some readers, even a lay reader familiar with themes in twentieth-century physics and mathematics—from such texts as *Dancing Wu Li Masters* or *The Elegant Universe*—would not be alarmed by the notion that reality consists of more than three or even four dimensions. And it is not only the McKennas that invoke such an "implication" or involution: Spruce's text, in responding to "accounts" of "incantations" becomes, upon inspection, itself something like an incantation, summoning the Other Evolutionist, Alfred Wallace, to assemble Spruce's papers after the latter's death.

So too do the McKennas share contemporary technoscientific culture's fascination with the pragmatic capacities of science: as a molecular prosthesis for visualization, the McKennas suggest, ayahuasca may in fact enable new modes of perception in segments of the electromagnetic spectrum not registerable by the human eye. If numerous earlier researchers compared LSD to an "electron microscope" or a "non-specific amplifier of human consciousness," ayahuasca is, for the McKennas, a device for querying and exploring perception with mind.

And this ultra vision is paired with a similar capacity to tune human audio perception:

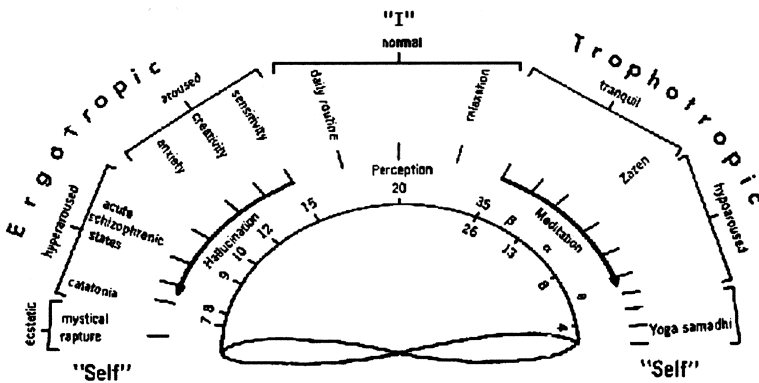
We also had occasion to ingest synthetic tryptamines and had observed as a regular feature of the tryptamine intoxication a peculiar audible phenomenon. This is a very faint, but definitely perceivable, harmonic overtone of varying pitch and frequency that seems to emanate from inside the skull while one is under the influence of tryptamines; the exact nature of this harmonic tone eludes precise verbal description, as it varies in quality and amplitude during the course of the tryptamine experience, first manifesting itself as an extremely faint sound on the very edge of audibility, rather akin to the sound that might proceed from distant wind chimes. (*Invisible Landscape* 95)

While Darwin goes on to describe a sumptuous and multifaceted external world upon which natural and sexual selection have been inscribed, the McKennas ask the reader to investigate, if only phantasmatically, the inside of one's own skull. The McKennas solicit investigation, while Darwin summarizes, reports and argues. Of course, such an "internalist" investigation—an inquiry in which, as

in phenomenology or Zen, introspection of different states of mind and the fathoming of interiority are not simply understood as *devoid* of objectivity—presents difficulties for the modest scientific reporter (such as Spruce) who would seek credence in a community based on the distinction between the subject of investigation and its object of analysis, not their unpredictable admixture.

As ethnobotanists, the McKennas seek to understand these plants and their usage by registering the effects upon their own psyches, together, and they rhetorically model this investigation for readers, and even each other. As with the work of contemporary scientists Alexander and Ann Shulgin, psychonautical research recognizes as a first principle that these plants and compounds must be studied by collectives. In short, to investigate psychedelics, one must form a commons. Here, the resistance of ecodelic experience to language becomes the occasion for a prolix gathering seeking a commons, a paradoxical search engine for eloquence: “Dennis wouldn’t stop talking, and it was really no longer possible to communicate with him” (117).

And the reader, virtual psychonaut, is very much solicited into the collective. Try, now, with me, to summon a sound which, ringing out from the interior of your skull, defies verbal description and is on the edge of audibility, tending toward the procession of distant wind chimes. . . . Here description morphs into recipe, an invitation to investigate ayahuasca from the “inside”—not (necessarily) by ingesting a mixture of *Baanisteria Caapi* and *Psychotria Viridis*, but by working deliberately on sequences of imaginative practices to fulfill the implicit bond (if not habitual contract) between authors and readers. Trying to understand this sound on the edge of reference, following along with the imbricating description of a barely audible sound from within, the reader must try to become still in an effort to resonate with the sound toward which the McKennas gesture, a sound of incipient resonance, a cognitive synesthesia. Psychologist Roland Fischer’s Perception/Hallucination Continuum maps this effort as the ergotropic inclination toward ego death, “the rebound of ecstasy toward samadhi” (“Cartography” 902), an active inclination that seeks the zero or mobius point where the experience of a self folds inwards, and takes itself to be an object of perception and, in perception, perceives the fundamentally recursive nature of an I beholding itself beholding, but only on condition of a transformation in the observer, a befalling: *Tat Tvam Asi*. Such a tuning of the mind toward minding apparently yields a hyperbolic space, one spiking toward infinity—Darwin turns the reader’s gaze toward an infinite (empire) without, the McKennas’ focus observation on the (hyperbolic) infinite “within.”



The Perception / Hallucination Continuum (Fischer)

Mathematician Daina Taimina describes hyperbolic spaces in an interview with science writer Margaret Wertheim:

There are many ways of describing the hyperbolic plane. In formal geometric terms it is a simply connected Riemannian manifold with negative Gaussian curvature. In higher-level mathematics courses it is often defined as the geometry that is described by the “upper half-plane model.” One way of understanding it is that it’s the geometric opposite of the sphere. On a sphere, the surface curves in on itself and is closed. A hyperbolic plane is a surface in which the space curves away from itself at every point. Like a Euclidean plane it is open and infinite, but it has a more complex and counterintuitive geometry.

Wertheim notes that to understand this spike toward the infinite characteristic of the hyperbolic space, you must make a model of such a space:

I have crocheted a number of these models and what I find so interesting is that when you make them you get a very concrete sense of the space expanding exponentially. The first rows take no time but the later rows can take literally hours, they have so many stitches. You get a visceral sense of what “hyperbolic” really means.

So too does the conceptualization of a hyperbolic space require the labor of model building. Mathematician and semiotician Brian Rotman’s model of mathematics argues for a thermodynamic understanding of the mathematical process, discovering at the level of mathematical practice Landauer’s 1961 model of the physics of information. On Rotman’s treatment of “counting on non-Euclidean fingers,” even the act of iteration fundamental to any counting entails thresholds of quantitative increase of difficulty (125). In this dissipative semiotic model, any (serial) counting to “infinity” is haunted by sudden incapacity as the energy (or information) required to compute (count) the infinite eventually becomes greater than the energy in the universe.

And it was not only thermodynamics that made the conceptualization of hyperbolic spaces difficult. While nature, it turns out, abounds in hyperbolic forms such as kelp, cabbage and sea slugs, mathematicians had their attention focused elsewhere:

There are also not that many mathematicians sitting around looking at sea slugs. It's only been fairly recently that mathematicians have been looking at things like leaves and trying to understand them. A lot of these can't be understood in terms of analytic equations—neither can the physical model of the hyperbolic plane—so you have to use other kinds of methods, like geometric methods. It's not until recently that we've had the tools to do that. (Wertheim)

And yet if such conceptualization was difficult, it was not without its admirers and functioned as a kind of infinitely curvy femme fatale of nineteenth-century mathematicians. Wolfgang Bolyai (1775–1856) urged his son Janos Bolyai to avoid the study of hyperbolic geometry as one would avoid the fleshpots of Egypt: “For God’s sake, please give it up. Fear it no less than the sensual passions, because it, too, may take up all your time and deprive you of your health, peace of mind and happiness in life” (qtd. in Davis and Hersh 220). And the patterns themselves are no less powerful attractors of attention:

Some of the models had great aesthetic appeal, especially given the enormous variety of repeating patterns that are possible in the hyperbolic plane. After the geometer Donald Coxeter explained these conceptual models to Escher, he used patterns based on these models in several of his prints. (Wertheim)

While Darwin’s formulation of the “mystery of mysteries” involves the reader in a recursive loop of thought arrested only by a being much struck by the facts of the external world, the McKennas summon an inquiry into the “unstruck”: the conditions of being an observer are the recursive quarry here. The McKenna’s offer a *hyperbolic* map of subjectivity—one which queries the infinite regress of observers observing their observations, together. On this model, as with Wertheim’s need to crochet the hyperbolic space in order to grok it, so too must the reader model the hyperbolic model of a self with a self, listening toward distant wind chimes. . . . Mathematician David Henderson notes that the hyperbolic space can be understood as a continuous involution of a sphere: “On a sphere, the surface curves in on itself and is closed. A hyperbolic plane is a surface in which the space curves away from itself at every point.” (qtd. in Stafford and Web 101)

Opening toward infinity, the self must in this sense divine the infinite, engage in an ongoing search. Contemporary cognitive science—and the thermodynamics of information—teach us that

such a perception involves a sometimes catastrophic increase in the sensory/motor ratio and a radical increase in the processing of entropy or information: When we imagine objects and places, this imagining creates mental space that is constrained in many of the ways real space is constrained. Although you can imagine impossible movements like your feet lifting up and your body rotating until your head floats inches above the floor, these movements take time to imagine and the amount of time is affected by how large they are.

While the McKennas do not yet ask us to imagine an object or a place but instead invite us to participate in an infinite “regress,” another, shamanic, dimension is nonetheless invoked, a relation with a trans-human and alternative ontology mapped hyperbolically. For following Wertheim’s analysis, what does “hyperbolic” really mean? The *Oxford English Dictionary* notes that this is originally a term of rhetoric: “A figure of speech consisting in exaggerated or extravagant statement, used to express strong feeling or produce a strong impression, and not intended to be understood literally.” *The Invisible Landscape* is indeed in the tradition of the utopian explorer narrative, a “Kubla Khan” (itself composed “in a sort of Reverie brought on by two grains of Opium taken to check a dysentery”) of plant tryptamines narrating another dimension, a world revealed by an irreducible participation with ayahuasca and psilocybin.⁴ It is therefore more map than referent, a guide to hyperbolic spaces which, if it is understood properly, must not be taken literally even as the transformation provoked by the (guided) interaction is actual. In responding to a “report” to be tested empirically, the brothers seek to report on it, and in reporting, involve attentive readers in it. They model an interpretation for us that seeks a figure/ground reversal between “ordinary” late late late capitalist consumer reality, and one that persists in a dimension accessed through the molecular bit flip of ayahuasca, an ecstatic rebound toward samadhi that operates as programming of the “I” by folding it in, on and through itself in an origami of subjectivity. Architect and topologist Haresh Lavani characterizes the study of all such imaginable topological forms as morphogenomics:

In biological terms, this is an epigenetic code that exists in parallel with the biological genetic code captured in the DNA sequences. The morph-code leads to the possibility of *morphogenomics* mentioned earlier. It provides a formal tool in the design and manufacturing processes.

And their report is itself psychedelic and hence interdimensional—the psyche of the reader must be manifested to access the

report, turned in on itself in involution; we must listen attentively and ergotrophically toward distant wind chimes.

Hyperbolic Rest

Even becoming still enough long enough to engage the possibility of such a sound requires “physical work,” exergy expended even in the erasure of information. In *True Hallucinations*, Terrence’s lengthier and more markedly literary account of “The Experiment at La Chorrera,” McKenna suggests that whatever protocols the two brothers worked up to both induce and manage an “experimental schizophrenia” appeared to enable the compression of an enormous amount of information. Excerpts from Dennis’s journal are woven into the pages of *True Hallucination* as citations of “The Experiment. . . .” On March 4, 1971 (what the group titles “March Forth!”), Dennis describes the psilocybin’s function in tuning into an enormous quantity of information:

The psilocybin that occurs in the mushroom acts as an antenna for picking up and amplifying the harmonic ESR tones of all tryptophane-derived compounds of all living organisms within its range. Since the psilocybin undergoing metabolism is superconductive, this means that its range of reception is theoretically infinite. The antenna does, to some degree, pick up a signal whose ultimate origin is the *totality of living creatures* [. . .]. (99)

This tuning into the “totality of all living creatures,” of course, is a rhetorical enterprise that treats the earth as a superorganism, Gaia. As an “experimental schizophrenia,” though, the Experiment at La Chorrera involved more than Dennis. Terrence narrates it thus: “I see this notion as an effort to explain the very real sense of informational interconnectedness that pervaded our experience, which occurred in one of the densest tropical rainforests on the planet” (98). True, Terrence, in the improbably titled “I Understand Philip K. Dick,” wrote that he had been involved in a *folie a deux* with his brother Dennis, and suggested that Dick—whose 1974 Valis experience bathed him in pink light and too much information—made it *trois*. But the locution here is precise and heuristic at the same time: an “effort,” a trial, an attempt to articulate the informatic interconnection in the context of that poster ecosystem for a living system, the Amazonian rainforest.

Rainforests, recent research tells us, are the best degraders of entropy on the planet—they are the most efficient dissipaters of

the energy “between cold earth and hot sun,” nineteenth century physicist Ludwig Boltzmann’s name for the gradient of energy that, his investigations concluded, must be dissipated as entropy. Ecologists James J. Kay and Eric Schneider link this capacity to degrade energy to the increasing complexity of ecosystems:

In other words ecosystems develop in a way which increases the amount of exergy that they capture and utilize. As a consequence, as ecosystems develop, the exergy of the outgoing energy decreases. It is in this sense that ecosystems develop the most power, that is, they make the most effective use of the exergy in the incoming energy while at the same time increasing the amount of energy they capture.

In this view, living systems are expected participants in a thermodynamic system that, like the rest of the cosmos, seeks to constantly increase the amount of energy it degrades (entropy). “Exergy” is thus a restated description of entropy, a measure of the overall disorder of a system. And yet “exergy” shares a paradox with entropy: increasing exergy involves the emergence of a dissipative structure—such as a winter coat—that decreases the dissipation of energy in a way that paradoxically increases the dissipation of entropy—such as the work stacking wood that can now be done with the coat, leading to the burning of the wood, etc. “Entropy” is hence also a measure of the information content of a system, thanks to Claude Shannon’s formulation of *Mathematical Theory of Communication* in 1948. One aspect of this increased ecological exergy involves sharing information about what works in any given system:

Given that living systems go through a constant cycle of birth/development/regeneration/death, preserving information about what works and what does not, is crucial for the continuation of life (Kay, 1984). This is the role of the gene and, at a larger scale, biodiversity, to act as information data bases about self-organization strategies that work. (Schneider and Kay)

Among the ideas that seem to work for the continuation of life is the concept of the totality of all living systems. It is an archetype that abounds in human culture, and it appears that by divining the effects of ayahuasca and psilocybin, the McKennas found it again:

Interestingly enough, the tropical rain forests with their coupled cloud system, with the sun directly overhead, have the same surface temperature as Canada in the winter. The low tropical rain forest OLR [outgoing long-wave radiation] temperatures are due to the cold temperatures of the convective cloud tops which are generated by the underlying cooler forests. (Schneider and Kay)

So while the prospect of an informational interconnectivity struck the McKenna brothers as surreal in the context of a rainforest far from an “information technology” of any usual kind, they were in fact surrounded by, among other things, a massive system of informational connectedness.

It would not be the first time that schizophrenia was associated with the analogies and metaphors of a contemporary information technology. Avital Ronell traces out the debts of early telephony to schizophrenia and its spiritualist double, the aptly named “medium.” But I want to suggest that the McKenna brothers less engaged in an experimental schizophrenia than discovered, and rediscovered, the order to be found in resonance. Indeed, if “ecodelic” is to be dropped into the mix of interfaces whereby we interact with mind, I would suggest that it functions as an informational compression device, one that reminds us of the “echo” built into the use of these plants, as we resonate stigmergically with those models produced by evolution. Such “ecstatic signification” would indeed appear to be the very telos of psychedelics—the compression of information through the breakdown in symmetry that enables one to become resonant with evolution while mapping the hyperbolic space of human subjectivity.⁵ Pretty good discovery for a couple of schizophrenics.

Manifesting Psyche or, Modeling Resonance with Aum

From the midst of that radiance, the natural sound of Reality, reverberating like a thousand thunders simultaneously sounding, will come. That is the natural sound of thine own real self. Be not daunted thereby, nor terrified, nor awed.

—Evans-Wentz,

The Tibetan Boo of the Dead (104)

While this use of a “schizophrenia” resonates with the history of the use of ecodelics as simulation machines for psychoses, this rhetorical history itself must be tuned at least as much as an ayahuasca experience. While “experimental schizophrenia” provided the main initial paradigm for researchers across the planet after Albert Hofmann’s 1943 re-discovery of LSD, the term quickly revealed itself to be a non sequitur to researcher Humphrey Osmond in his use of LSD to treat alcoholics. The “psychotomimetic” coinage seems to have been definitively treated in a 1971 discussion led by J.R. Smythies and cited by the McKennas. There, under the

title “A Model of Schizophrenia?” and after a “great deal of controversy,” a participant (Kelty) noted that “there is evidence that this term is really a misnomer and that acute schizophrenia is not schizophrenia” (13). This point seemed to especially trouble the “psychotomimetic” terminology with the consensus that “all participants agree that we do not even know what schizophrenia is” (14). Yet even if the referential status of “psychotomimetic” was put into serious and double jeopardy through the ontological fuzziness of both categories—“we do not know what schizophrenia is,” so we can hardly be expected to use schizophrenia as a mapping device for these compounds, a label that reminds us what they do when we are using them—the notion that these compounds could “model” schizophrenia survives intact.

Smythies defined a model as something for which no evidence is needed. Going back to his earlier premise, he stated that a model is a strategy, and the only justification for a model is that it suggests an experiment that tells us something (the model can be made with anything you like) (14). While reader may gasp, as I do, when reading that a model is something that can lack evidence, I want to pause and notice that this lack is founded not in the strangely hybrid text of *Invisible Landscape* or *True Hallucinations* or even the first paragraph of *The Origin of Species*, but instead emerges from the pages of a technical journal devoted to the development of protocols for the investigation of psychiatric illness through the use of an established modeling technology: psychotomimetics. The pause, followed as it is by a re-reading of the passage, suggests a heuristic and rhetorical understanding of technoscience, rather than a philosophical one. It amplifies the way in which technoscience can proceed very nicely not through the continual expansion of previous knowledge, but through the stigmatic clustering of work that emerges through the help of place holders—such as metaphors—and templates—such as the network of metaphors stitching together the reductionist “informatic vision” of nascent molecular biology.

With his brother Terrence, Dennis suggests that schemes for compressing the massive volume of information work could be modeled, imagined, as a nested hierarchy:

If we imagine the harmine-DNA complex as a radio-cybernetic matrix, then we can suppose that this matrix stores information in a regressing hierarchy of interiorized reflections of itself, in a form similar to the familiar ivory balls carved one inside the other, each level free to [rotate] independently. In response to the vibration of tryptamine-RNA charge-transfer exchanges, modulated by mind into a usable signal, information searches of any sort might be conducted through a process that we

suggest might be much like the principle of retrieval of information from volume holograms. Such a process of information retrieval and image projection would never lag behind human thought. Indeed, conscious thought may be precisely this process, but occurring on a more limited scale. (*Invisible Landscape* 106)

The reader, already solicited toward distant wind chimes, becomes aware of reading about the very mechanism of conscious thought, consciously, coming to its limit, a doubling of the present, as an “image projection would never lag behind human thought.” Such an infinite regress of self-reference is “static” only when the observer herself ceases to alter in recursive play in and through the investigation of consciousness. In this case, that trip manual *The Tibetan Book of the Dead* offers a prescription for simple practices of awareness: “It is quite sufficient for thee to know that these apparitions are thine own thought-forms. Recognize this to be the Bardo” (Evans-Wentz 104). In this context, Tibetan advice to those who would manage and therefore alter their consciousness is: Remember the hyperbole!

During the interval between death and birth, Bardo entities seek to capture the attention of the soul otherwise concentrated on the Clear Light, and the Bardo Thodol suggests that awareness itself is ample protection from the catastrophe (from the Buddhist perspective) of such attention capture and its metonymy, rebirth. An awareness of one’s own recursive linkage to the forms of thought we are beholding need not imply the existence of a revealed, true plane of reality, but instead insists on an essential emptiness of reality, a becoming devoid of form or content. The Heart Sutra, a sixth century Mahayana Buddhist text crucial to Tibetan tradition, treats it this way:

Form is emptiness; emptiness also is form. Emptiness is no other than form; form is no other than emptiness. In the same way, feeling, perception, formation, and consciousness are emptiness. Thus, Shariputra, all dharmas are emptiness. There are no characteristics. There is no birth and no cessation. There is no impurity and no purity. There is no decrease and no increase. Therefore, Shariputra, in emptiness, there is no form, no feeling, no perception, no formation, no consciousness; no eye, no ear, no nose, no tongue, no body, no mind; no appearance, no sound, no smell, no taste, no touch, no dharmas, no eye dhatu up to no mind dhatu, no dhatu of dharmas, no mind consciousness dhatu; no ignorance, no end of ignorance up to no old age and death, no end of old age and death; no suffering, no origin of suffering, no cessation of suffering, no path, no wisdom, no attainment, and no non-attainment. Therefore, Shariputra, since the bodhisattvas have no attainment, they abide by means of prajnaparamita. (“The Heart Sutra”)

While a section named more explicitly as a mantra follows this treatment of the emptiness of consciousness besides its own beholding, the *repetitio* of NO that composes this passage should remind us that even here, in the most straightforward description of Buddhist ontology and epistemology, rhythm has its say, marking the temporal and hence transient passing of even this sutra: “There is no attainment and non attainment,” and they abide precisely by chanting these rhythmic patterns of continual reversal: “Form is emptiness; emptiness also is form. Emptiness is no other than form; form is no other than emptiness.”

On this reading that is a chanting, the Heart Sutra’s insight into mind consists of a repeatable recipe for reminding readers of their recursive role in their apprehension of worlding. This can entail working *at* and *through* the sutra (literally, “thread” or “path”), as the reader notices the form of the content describing emptiness, and the content of the form that seems to empty itself through (formal) repetition. In the first two lines above, one chiasmus follows upon another: “Form is emptiness; Emptiness is also form. Emptiness is no other than form; form is no other than emptiness.” In such a context, the awareness that one sees through a glass, darkly, must not recoil onto an epistemological certainty regarding a true, non-bardo consciousness. Instead, one must meditate on and divine practices of emptiness to avoid filling in one bardo with another, blocking the clear light with an ego whose attention is ensnared by the prospect of the truth. In this sense the Clear Light of the Bardo Thodol resists Eliade’s description of mystic light as an inseminating vision that gives life, and instead must be seen as a metaphysical Temporary Autonomous Zone that allows for an openness to immanence which does not seek fulfillment.

And the McKennas seem to know they are in the Bardo: *True Hallucinations*, even as a title, rhetorically induces, a la repetition of the heart Sutra, an essential oscillation at play in this admixture text. Consider, for example, Terrence’s vision of a saucer in the rainforest:

As I watched, the clouds re-coalesced in the same way that they had divided apart, taking another few minutes. The symmetry of this dividing and rejoining, and the fact that the smaller clouds were all the same size, lent the performance an eerie air, as if nature herself were suddenly the tool of some unseen organizing agency. (157–58)

This uncanny scene becomes even eerier when we consider that ecosystems are, of course, *precisely the tool of some unseen organizing agency*. And McKenna, with his language of “symmetry” and its

organizing force, seems almost to echo it: a large scientific literature describes the emergence of order from otherwise random oscillators. Collier and Burch summarize their arguments in the abstract of their 1998 article, “Order From Rhythmic Entrainment and the Origin of Levels Through Dissipation”:

Rhythmic entrainment is the formation of regular, predictable patterns in time and/or space through interactions within or between systems that manifest potential symmetries. We contend that this process is a major source of symmetries in specific systems, whether passive physical systems or active adaptive and/or voluntary/intentional systems, except that active systems have more control over accepting or avoiding rhythmic entrainment. The result of rhythmic entrainment is a simplification of the entrained system, *in the sense that the information required to describe it is reduced.* (165, italics mine)

Collier and Burch describe the unexpected order that emerges out of the conjunction of two random oscillators. They also note that novel order only emerges in what they call “unforced entrainment,” a spontaneous resonance between the oscillators rather than one directed by any univocal force. What perhaps oscillates, in McKenna’s account, is truth itself.

Entrainment can be communicated, passing information from one system to another. The paradigm is a group of jazz percussionists agreeing on a complex musical progression. The process of rhythmic entrainment is complementary to that of symmetry breaking, which produces information. *The two processes account for much, if not all, of the complexity and organization in the universe.* Rhythmic entrainment can be more or less spontaneous, with the completely spontaneous form being uncontrollable. A balance between the two forms can produce a more robust system, requiring less energy to maintain, whether in physical, biological or social systems. (Collier and Burch 165, italics mine)

Collier and Burch contribute to an extensive literature that has described the self-organizing order that is apparently ubiquitous in our cosmos and intensified on biotic planets. Here no central organizer—such as, say, DNA—serves as the source of the orderly unfolding of organisms and their ecosystems. Instead, through their interaction, otherwise random oscillators begin to resonate, resulting in more order, compressing the information necessary to describe or even dance to it. . . . And *True Hallucinations*, in oscillating between a declaration of truth and its erosion, begins to resonate:

The siren sound was rapidly gaining pitch, and, in fact, everything seemed to be speeding up [. . .]. In the last moment before it was lost, I

completely threw open my senses to it and saw it very clearly. It was a saucer-shaped machine rotating slowly, with unobtrusive, soft, blue and orange lights [. . .] as it passed over me I could see symmetrical indentations on the underside. It was making the whee, whee, whee, sound of science fiction flying saucers. (158)

Everything in Terrence's prose here is caught up in the first part of the rhetorical algorithm *True Hallucinations*, until it is not, "before it is lost." No sooner does McKenna attract the reader's attention to the runic "symmetrical indentations" inscribed in symmetrical indentations than the infinite regress is interrupted in slapstick fashion, and the "sighting" becomes a "citing": "it was making the whee, whee, whee, sound of science fiction flying saucers." What are we to do when a credible witness (perhaps hyperbolically) compares their own vision to something marked as false, a triplet of onomatopoeia followed by fakery, "the whee, whee, whee sound of science fiction flying saucers"? Note, for example, that not only is the sound itself emerging from a craft that seems to parody itself, but that the onomatopoeia of "whee, whee, whee" remains unmarked as a citation. Devoid of quotes and yet, obviously, quoting, it both marks and fails to mark its falsehood in a single gesture.

Nor is this "psychedelic sophist" content with this oscillation between true and false. For as the disk whirls, something recognizable comes into focus, an archetypical hoax:

the inevitable incongruous detail that seems to render the whole incident absurd: "[. . .] as the saucer passed overhead, I saw it clearly enough to judge that it was identical with the UFO, with three half-spheres on its underside, that appears in an infamous photo by George Adamski widely assumed to be a hoax. I had not closely followed the matter, but I accepted the expert opinion that what Adamski had photographed was a rigged up end-cap of a Hoover vacuum cleaner (159).

So scrambled are the categories of fiction and reality here that the mind cannot come to rest on a conclusion concerning the veracity of the text. In the McKennas' admixture text, the induced oscillation between "True" and "Hallucination" becomes less a hypothesis about reality than a rhythm for browsing the perception/hallucination continuum. Such a (fundamentally Popperian) model tunes our thought toward experiments, a technology or "rhetorical software" for our imaginations, prospecting for evolution in morphogenomic space, topologist Hareesh Lalvani's map of the combination of all forms. By continually oscillating between true, false, as if true, and as if false, Terrence McKenna encourages readers to avoid the resolution of the inquiry, and foregrounds the

status of his report *as a model*. In Mahayana Buddhist theories of knowledge, it is not the failure of language that poses the greatest obstacle to enlightenment, but the failure to apprehend and inhabit this gap between language and actuality in a way that is mindful of language's "suchness"—its nature as a model. By fluctuating between an affirmation of the truth and its uncanny double, *True Hallucinations* helps readers welcome the instabilities of a psychedelic experience and forestalls simple conclusions concerning the ontology, meaning and worth of ecodelic apprehensions.

The self must remain at stake in the observations. Terrence's constant and subtle interruption of any simple "agreement" between author and reader (or between Terrence or Dennis) more or less requires the attentive reader to continue their inquiry. Rather than "converting" readers to ecodelics, McKenna solicits them into continual investigation. As with Popper's negative model of truth, "true" means in this context "not yet disproved," and its conjunction with "hallucination" demands a dance between the affirmation of a particular account of psychedelic experience and a memory of the fate of all other "explanations" or descriptions of reality, scientific or otherwise: they are always about to be disproved.

If we apply this model to our very perception, human consciousness *acts* as a transcendental expression of an immanent universe, an actualization process that apparently gives our species, and perhaps the cosmos, pleasure. Human perception acts transcendental, in the image of a transcendental god, in so far as it is rendered as hierarchically distinct from the universe. Yet this transcendental expression is precisely an expression, even involution, of an immanent ecology in which the very distinction between self and cosmos emerges from a nested hierarchy with as much interior as exterior connectivity, as recursive thought becomes hyperbolic in both the mathematical and rhetorical sense.

The will to narrate, explain, recount and remix is more than an attribute of psychedelic culture—it is the human tendency to form a commons with narratives, gestures, solicitations, icons and supplications: Look! You are completely enmeshed with the cosmos! The "fourth drive" of the universe, its very *telos*, appears to include the imaginary investigation of unprecedented states for which only a continuum of true and false is sufficient. By some accounts (The Anthropic Principle), the universe is finely "tuned" toward conditions giving rise to a human consciousness that would behold it. If so, this tuning also tunes an experience of wonder that certainly qualifies as an alteration of consciousness putatively linked to the VMT2 gene. The Psychedelic Anthropic Principle

(PAP) suggests that the universe is tuned toward conditions for the emergence of a consciousness that would behold the cosmos, and itself, in awe, a complex admixture of surprise and recognition.

During my own second ayahuasca ceremony, the author appeared to be given some time in which to simply query the plant intelligence presenting itself first as birdsong, and then fashioned after an internal Socratic voice, searching for bandwidth between the buzz of the Amazonian insects, croaking amphibians and birds in full courtship display. Without thinking, I asked it what the Universe was.

“The universe is a way of tricking itself. Next question.” This trickster ontology might remind us that the cosmos is capable of transforming itself in suddenly novel ways, forgetting its own premises, breaking symmetry, and suddenly experimenting with an increased capacity to degrade entropy and hence compress information, again, hyperbolic. By 1973, Roland Fischer would write of his investigations of the effect of psilocybin on the visual field, “Thus far, our studies suggest that certain hallucinogenic drug induced transformations in visual space may be regarded as an optimization of information” (“Induction” 258). In this context, the capacity of human consciousness to explore and actualize the morphogenomic field of the imagination is no more astonishing an invention by evolution than *canis familiaris* learning to hang its head out the window at 35 miles per hour for the sheer haptic gaze smack of it, and no less so. By continuing to divine it, we create novel dissipative structures for dissipation of ever more information, information we can perhaps sustain if we tune into the totality of all living creatures, Gaia.

Coda: Divining Points of Light

I somehow came into possession of a copy of Timothy Leary’s text, “Start Your Own Religion” and find myself nodding. Of course I was already a member of the Soga Del Alma, an ayahuasca church in Peru, but it seemed unlikely that would matter in the DEA’s America. And I can’t say that the remarkable time since my return to Peru for further consultations with my teacher Norma and the plant intelligence Mamahuasca has been any “less” astonishing in its interconnectivity than the croaking amphibians and tiny whooping primates resonating with Icaros in the moonlight rainforest. So when the Supreme Court ruled 8–0 in favor of the U.D.V, a New Mexico branch of a Brazilian church that drinks ayahuasca as part of its sacramental practice, I can’t say I was very surprised. Ayahuasca, that admixture of distributed action, helps remind me that even in a

moment of darkness the “points of light,” to sample Bush’s daddy, can shine through, spreading from Brazil and Peru to New Mexico, Pennsylvania, and the rest of our little neighborhood in the Milky Way, that spiral.⁶

Notes

¹ Divine: :a. F. devine-r (12th c.) to recount, signify, wish, prophesy, ad. L. dvnre to foretell, predict, after devin divine: see prec.] I. Transitive senses. 1. To make out or interpret by supernatural or magical insight (what is hidden, obscure, or unintelligible to ordinary faculties); hence, in later use, to interpret, explain, disclose, make known” (*Oxford English Dictionary*).

² As researchers Alexander Shulgin and Dennis McKenna have both pointed out, DMT, the visionary molecule contained in all ayahuasca brews, abounds in nature.

³ If one were specifically interested only in experiencing ayahuasca, it would be more cost-effective to home-brew a batch with ingredients ordered from an ethnobotanical supplier. With the help of an experienced friend as a sitter, one could have an intense entheogenic experience in the safety and comfort of home or in an isolated natural setting. This do-it-yourself approach could potentially be far more enlightening than what one might experience after traveling all the way to South America. See Stuart’s “Ayahuasca: A Cautionary Tale.”

⁴ From the Crewe Manuscript of Coleridge’s poem; view it online: <<http://www.english.upenn.edu/~mgamer/Etexts/coleridge.crewe.html>>.

⁵ See Munn’s “The Mushrooms of Language.”

⁶ The opinion held that the government had not met the burden of the Religious Freedom Restoration Act when it seized the UDV’s prepared “hoasca” tea. The usually prolix punditry was mostly silent in the wake of this unanimous decision in favor of a group of one hundred thirty church members who gather to drink ayahuasca. Could this really be Bush The Second’s America?

When the American Bar Association summarized the case, neither the critics nor the victors could avoid the pull down the rabbit hole, finding only in that very image of the fantastic, *Alice in Wonderland*, a citation capable of sustaining the strangeness of the decision. For critic Marci Hamilton, the court is navigating a course “through the looking glass,” while John Boyd of Albuquerque, N.M., one of the attorneys for the church, takes more of a Humpty Dumpty view of the matter, noting that like the famous falling Egg Man, Congress means what it says and, taken at its word, says what it means: “The decision makes clear that the Supreme Court has taken Congress at its word,” he says. “The statute means what it says, . . .” (qtd. in Hudson)

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