

Ayahuasca and Human Destiny

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For most of the last 33 years, ayahuasca has been one of the major preoccupations of my life. In that time, I have written extensively on the botany, chemistry, and pharmacology of ayahuasca, on its potential therapeutic uses, and on the need for more, and more rigorous, scientific and clinical investigations of this remarkable plant decoction. Working with colleagues such as Dr. Grob, my good friends Jace Callaway and Dr. Luis Eduardo Luna in Finland, my mentor Dr. Neil Towers, my late and beloved brother Terence, Dr. Glaucus de Souza Brito, and others, to investigate the myriad mysteries of ayahuasca, has been as rich and rewarding an experience as any scientist could ever hope for.

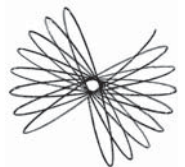
Partly as a result of our collective efforts, over the last few decades ayahuasca has become one of the most thoroughly studied of the traditional shamanic plant hallucinogens. We now have a firm understanding of the plant species that are utilized in its preparation, including the diverse pharmacopoeia of ayahuasca admixture plants, a shamanic technology unto itself that begs additional investigation. We understand the chemistry of the active constituents of its primary botanical components, and have better insight into its remarkable synergistic pharmacology.

We have identified potential therapeutic applications for ayahuasca and the role that it may some day find in healing the physical and spiritual wounds of individuals, if it is ever afforded its rightful place in medical practice. Ethnographically, my colleagues and I have made contributions to an understanding of the central role that ayahuasca already has in the context of Amazonian shamanism and ethnomedicine. We have described, and written about, its status as a window into the sacred cosmology of magic, witchcraft, transcendent experience, and healing that permeates and defines the practices of Mestizo ethnomedicine.

The visionary paintings of Peruvian shaman and artist Pablo Amaringo, brought so beautifully to the attention of the world by Dr. Luis Eduardo Luna, has helped to make that tradition accessible to many who would otherwise have seen it (if they were aware of it at all) as alien, exotic, and incomprehensible. To an extent, our work has shed some small light on the more contemporary role of ayahuasca as the sacramental vehicle of syncretic religious movements that originated in Brasil and now are reaching out globally, if incrementally, to embrace a sick and wounded world that desperately yearns for the healing that this mind/body/spirit medicine can offer.

The story of ayahuasca, and our evolving understanding of its place in the world, and of its significance for medicine, pharmacology, ethnobotany, and shamanic studies, is far from over, and in fact, it may have just begun. I would like to believe that is the case. But for the purposes of this contribution, rather than submit yet another dense and lengthy review on the botany, chemistry, pharmacology, &c., of ayahuasca, I have chosen to adopt a broader perspective, and to indulge in some reflections, and speculations on the past and future of ayahuasca of the sort that a scientist, probably mercifully, rarely shares with his colleagues or the larger world.

To those readers who may wish for my more usual nuts-and-bolts approach to the subject, I call attention to my recent review in the journal *Pharmacology and Therapeutics* (McKenna, 2004). In addition, a complete list of all of “my” publications on ayahuasca is appended to the end of this article; and I use the term



“my” advisedly because these publications represent the work and creativity of many people with whom I’ve been privileged to collaborate over the years. They would not exist without them.

On a personal level, ayahuasca has been for me both a scientific and professional continuing carrot, and a plant teacher and guide of incomparable wisdom, compassion, and intelligence. My earliest encounters with ayahuasca were experiential; only later did it become an object of scientific curiosity, sparked in part by a desire to understand the mechanism, the machineries, that might underlie the profound experiences that it elicited.

As a young man just getting started in the field of ethnopharmacology, ayahuasca seemed to me more than worthy of a lifetime of scientific study; and so it has proven to be. Pursuing an understanding of ayahuasca has led to many exotic places that I would never have visited otherwise, from the jungles of the Amazon Basin to the laboratory complexes of the National Institute of Mental Health and Stanford; it has led to the formation of warm friendships and fruitful collaborations with many colleagues who have shared my curiosity about the mysteries of this curious plant complex.

These collaborations, and more importantly, these friendships, continue, as does the quest for understanding. Though there have been detours along the way, always, and inevitably, they have

led back to the central quest. Often, after the fact, I have seen how those apparent detours were not so far off the path after all, as they supplied some insight, some skill, or some experience, that in hindsight proved necessary to the furtherance of the quest.

Just as ayahuasca has been for something of a Holy Grail, as it has been for many others, I have the intuition that it may have a similar role with respect to our entire species.

Anyone who is personally experienced with ayahuasca is aware that it has much to teach us; there is incredible wisdom and intelligence there. And to my mind, one of the most profound and humbling lessons that ayahuasca teaches – one that we thick-headed humans have the hardest time grasping – is the realization that “you monkeys only think you’re running things.”

Though I state it humorously, here and in other talks and writings, it is nonetheless a profound insight on which may depend the very survival of our species, and our planet. Humans are good at nothing if not hubris, arrogance, and self-delusion. We assume that we dominate nature; that we are somehow separate from, and superior to, nature, even as we set about busily undermining and wrecking the very homeostatic global mechanisms that have kept our earth stable and hospitable to life for the last four and a half billion years. We

Horizons expand
Psychotic visions demand
Pass the pipe please man?
 By Kenny



devastate the rainforests of the world; we are responsible for the greatest loss of habitat and the greatest decimation of species since the asteroid impacts of the Permian-Triassic boundary, 250 million years ago; we rip the guts out of the earth and burn them, spewing toxic chemicals into the atmosphere; at the same time we slash and burn the woody forests that may be the only hope for sequestration of the carbon dioxide that is rapidly building to dangerous and possibly uncontrollable levels. For the first time in the history of our species, and indeed of our planet, we are forced to confront the possibility that thoughtless and unsustainable human activity may be posing a real threat to our species' survival, and possibly the survival of all life on the planet.

And suddenly, and literally, "out of the Amazon," one of the most impacted parts of our wounded planet, ayahuasca emerges as an emissary of trans-species sentience, to bring this lesson: You monkeys only think you're running things. In a wider sense, the import of this lesson is that we need to wake up to what is happening to us and to the planet. We need to get with the program, people. We have become spiritually bereft and have been seduced by the delusion that we are somehow important in the scheme of things. We are not.

Our spiritual institutions have devolved into hollow shells, perverted to the agendas of rapacious governments and fanatic fundamentalisms, no longer capable of providing balm to the wounded spirit of our species; and as the world goes up in flames we benumb ourselves with consumerism and mindless entertainment, the decadent distractions of gadgets and gewgaws, the frantic but ultimately meaningless pursuits of a civilization that has lost its compass. And at this cusp in human history, there emerges a gentle emissary, the conduit to a body of profoundly ancient genetic and evolutionary wisdom that has long abided in the cosmologies of the indigenous peoples of the Amazon who have guarded and protected this knowledge for millennia, who learned long ago that the human role is not to be the master of nature, but its stewards. Our destiny, if we are to survive, is to nurture nature and to learn from it how to nurture ourselves and our fellow beings. This is the lesson that we can learn from ayahuasca, if only we pay attention.

I find it both ironic, and hopeful, that within the last 150 years, and particularly in the last half of the 20th century, ayahuasca has begun to assert its presence into human awareness on a global scale. For millennia it was known only to indigenous peoples who have long since understood and integrated what it has to teach us. In the 19th century it first came to the attention of a wider world as an object of curiosity in the reports of Richard Spruce and other intrepid explorers of the primordial rainforests of South America; in the mid-20th century Schultes and others continued to explore this discovery and began to focus the lens of science on the specifics of its botany, chemistry, and pharmacology (and, while necessary, this narrow scrutiny perhaps overlooked some of the larger implications of this ancient symbiosis with humanity). At the same time, ayahuasca escaped from its indigenous habitat and made its influence felt among certain non-indigenous people, representatives of "greater" civilization.

To these few men and women, ayahuasca provided revelations, and they in turn responded (in the way that humans so often do when confronted with a profound mystery) by founding religious sects with a messianic mission; in this case, a mission of hope, a message to the rest of the world that despite its simplicity was far ahead of its time: that we must learn to become the stewards of nature, and by fostering, encouraging, and sustaining the fecundity and diversity of nature, by celebrating and honoring our place as biological beings, as part of the web of life, we may learn to become



nurturers of each other. A message quite different, and quite anathema, to the anti-biological obsessions of most of the major world “religions” with their preoccupation with death and suffering and their insistence on the suppression of all spontaneity and joy.

Such a message is perceived as a great threat by entrenched religious and political power structures, and indeed, it is. It is a threat to the continued rape of nature and oppression of peoples that is the foundation of their power. Evidence that they understand this threat and take it seriously is reflected by the unstinting and brutal efforts that “civilized” ecclesiastical, judicial, and political authorities have made to prohibit, demonize, and exterminate the shamanic use of ayahuasca and other sacred plants ever since the Inquisition and even earlier.

But the story is not yet over. Within the last 30 years, ayahuasca, clever little plant intelligence that it is, has escaped from its ancestral home in the Amazon and has found haven in other parts of the world. With the assistance of human helpers who heard the message and heeded it, ayahuasca sent its tendrils forth to encircle the world. It has found new homes, and new friends, in nearly every part of the world where temperatures are warm and where the ancient connections to plant-spirit still thrive, from the islands of Hawaii to the rainforests of South Africa, from gardens in Florida to greenhouses in Japan. The forces of death and dominance have been outwitted; it has escaped them, outrun them.

There is now no way that ayahuasca can ever be eliminated from the earth, short of toxifying the entire planet (which, unfortunately, the death culture is working assiduously to accomplish). Even if the Amazon itself is leveled for cattle pasture or burned for charcoal, ayahuasca, at least, will survive, and will continue to engage in its dialog with humanity. And encouragingly, more and more people are listening.

It may be too late. I have no illusions about this. Given that the curtain is now being rung down on the drunken misadventure that we call human history, the death culture will inevitably become even more brutal and insane, flailing ever more violently as it sinks beneath the quick sands of time. Indeed, it is already happening; all you have to do is turn on the nightly news.

Will ayahuasca survive? I have no doubt that ayahuasca will survive on this planet as long as the planet remains able to sustain life. The human time frame is measured in years, sometimes centuries, rarely, in millennia. Mere blinks when measured against the evolutionary time scales of planetary life, the scale on which ayahuasca wields its influence. It will be here long after the governments, religions, and political power structures that seem today so permanent and so menacing have dissolved into dust. It will be here long after our ephemeral species has been reduced to anomalous sediment in the fossil record. The real question is, will we be here long enough to hear its message, to integrate what it is trying to tell us, and to change in response, before it is too late?

Ayahuasca has the same message for us now that it has always had, since the beginning of its symbiotic relationship with humanity. Are we willing to listen? Only time will tell.

References

- McKenna, Dennis J. (2004) Clinical investigations of the therapeutic potential of Ayahuasca: Rationale and regulatory challenges. *Pharmacology and Therapeutics*. 102:111-129.
- Dennis J. McKenna (1999) Ayahuasca: an ethnopharmacologic history. In: R. Metzner, (ed) *Ayahuasca: Hallucinogens, Consciousness, and the Spirit of Nature*. Thunder's Mouth Press, New York.
- Callaway, J. C., D. J. McKenna, C. S. Grob, G. S. Brito, L. P. Raymon, R.E. Poland, E. N. Andrade, E. O. Andrade, D. C. Mash (1999) Pharmacokinetics of Hoasca alkaloids in Healthy Humans. *Journal of Ethnopharmacology*. 65:243-256.
- McKenna, DJ, JC Callaway, CS Grob (1999). The scientific investigation of ayahuasca: A review of past and current research. *Heffter Review of Psychedelic Research* 1:
- Callaway, J. C., L. P. Raymon, W. L. Hearn, D. J. McKenna, C. S. Grob, G. S. Brito, D. C. Mash (1996) Quantitation of N,N-dimethyltryptamine and harmala alkaloids in human plasma after oral dosing with Ayahuasca. *Journal of Analytical Toxicology* 20: 492-497
- C. S. Grob, D. J. McKenna, J. C. Callaway, G. S. Brito, E. S. Neves, G. Oberlender, O. L. Saide, E. Labigalini, C. Tacla, C. T. Miranda, R. J. Strassman, K. B. Boone (1996) Human pharmacology of hoasca, a plant hallucinogen used in ritual context in Brasil: *Journal of Nervous & Mental Disease*. 184:86-94. McKenna, DJ (1996)
- James C. Callaway, M. M. Airaksinen, Dennis J. McKenna, Glacus S. Brito, & Charles S. Grob (1994) Platelet serotonin uptake sites increased in drinkers of ayahuasca. *Psychopharmacology* 116: 385-387
- Dennis J. McKenna, L. E. Luna, & G. H. N. Towers, (1995) Biodynamic constituents in Ayahuasca admixture plants: an uninvestigated folk pharmacopoeia. In: von Reis, S., and R. E. Schultes (eds). *Ethnobotany: Evolution of a Discipline*. Dioscorides Press, Portland
- Dennis J. McKenna, & G. H. N. Towers, (1985) On the comparative ethnopharmacology of the Malpighiaceae and Myristicaceae hallucinogens. *J. Psychoactive Drugs*, 17:35-39.
- Dennis J. McKenna, & G. H. N. Towers, (1984), Biochemistry and pharmacology of tryptamine and β -carboline derivatives: A minireview. *J. Psychoactive Drugs*, 16:347-358.
- Dennis J. McKenna, G. H. N. Towers, & F. S. Abbott (1984) Monoamine oxidase inhibitors in South American hallucinogenic plants: Tryptamine and β -carboline constituents of Ayahuasca. *J. of Ethnopharmacology* 10:195-223.
- Dennis J. McKenna, G. H. N. Towers, & F. S. Abbott (1984) Monoamine oxidase inhibitors in South American hallucinogenic plants Pt. II: Constituents of orally active Myristicaceae hallucinogens. *J. of Ethnopharmacology* 12:179-211.
- Dennis J. McKenna & G. H. N. Towers (1981) Ultra-violet mediated cytotoxic activity of β -carboline alkaloids. *Phytochemistry* 20:1001-1004

