

# The Plants Told Us

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This thesis is presented as part of the requirement for the Degree of Bachelor of  
Arts in Sustainable Development with Honours at Murdoch University 2008.

## Declaration

The work described in this thesis is my own account of my own research undertaken while I was enrolled as a student for the Degree of Bachelor of Arts with Honours at Murdoch University.

To the best of my knowledge, all work performed by others, published or unpublished, has been duly acknowledged.

This thesis has not been previously submitted for a degree or other award at any university.

Georgia Clare Scott

30<sup>th</sup> June 2008

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## Abstract

The evolution of human culture has been entwined with the use of psychoactive plants for millennia. In contemporary Western culture, however, the use of psychoactive plants has been marginalised, to the point of heavy criminal penalties, although there is no evidence that prohibition has had any success in reducing the harm caused by their use. This thesis argues that the basis for this intolerance lies in the dualistic paradigm fundamental to Western thought. In this thesis, I discuss the persecution of witchcraft and the links between this and dualism, and suggest the modern day “War on Drugs” to be reminiscent of a witch-hunt. I then use a case study of an Amazonian psychoactive decoction to illustrate the illegitimacy of the contemporary Western perception of such substances by providing a compelling account of its tradition and contemporary beneficial uses. The final section of the thesis argues the importance of the ecological self to sustainability and suggests that its realisation could be achieved utilising the shamanistic methods discussed.

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## Chapter 1 Introduction

*If the doors of perception were cleansed, every thing would appear to man as it is, Infinite.*

*For man has closed himself up, till he sees all things thro' narrow chinks of his cavern.*

William Blake, from *The Marriage of Heaven and Hell* (1975, p. xxii)

The evolution of human culture has for millennia been associated with psychoactive plants (Schultes, Hofmann, & Ratsch, 2001). In contemporary Western society, however, the use of psychoactive plants is marginalised to the point of heavy criminal penalties. This has been rationalised by policy makers and the general public alike as being in the interests of the public good, but statistics and scientific research show otherwise. The prohibition of certain psychoactive plants has placed economic, social and environmental burdens on society that outweigh the potential dangers of many of the criminalised plants, but more importantly, the vast benefits that could be made from the mindful, ritualised use of some psychoactive compounds. Therefore, it can be understood that the marginalisation of psychoactive plant use is the result of the dualistic, rational paradigm of the West, and not because of any inherent unworthiness. However, before we venture forth into the arguments and explorations of this thesis, some clarification of terms is necessary.

This thesis is about drugs. I am prefacing this thesis with a clear statement such as this because of the prevailing notion in our society that all drug use is necessarily dangerous, damaging to health and morally reprehensible. This

thesis is a challenge to these preconceptions. But above all, it is an invitation for the reader to set aside preconceptions she may have about drug use and users, and to be open to other possibilities. Whatever the reader's opinion on this controversial topic, I trust at the very least she will find what I present to be both challenging and thought provoking.

Words have a great deal of power. The negative associations placed on the word "drug", conjure up images of substance abuse, violence, and despair. The terms "drug", "drugs" or "drug use" infer homogeneity in both the effects of various substances, and the reasons why a person would want to experience them. Hence, statements such as the following from the United Nations:

*Drugs destroy lives and communities, undermine sustainable human development and generate crime. Drugs affect all sectors of society in all countries; in particular, drug abuse affects the freedom and development of young people, the world's most valuable asset.*

Political Declaration on Global Drug Control, Twentieth Special Session of the General Assembly, June 1998. (ABS, 2001)

are actually so broad and vague as to be quite meaningless. Without wanting to delve too much into the reasons why people use drugs – and there are many, from recreation to self-abuse to medicine to spirituality – I will just make the point that injecting heroin is *not* the same as smoking cannabis, *not* the same as consuming hallucinogenic cacti, *not* the same as drinking alcoholic wine, and *not* the same as drinking your morning coffee. All of these drugs have effects on the

body and mind, and due to their very different chemical compositions, the effects can also be expected to be varied. Just as the experience of drinking a cup of coffee is quite different from that of a glass of wine, so are the differences between other drugs. And in many instances, both the state of mind of the user (set), and the environment in which a drug is consumed (setting) are just as vital to the experience as the substance itself. So, while my earlier statement was “this thesis is about drugs”, what I should really say is that this thesis is about a *particular group* of drugs, used in particular ways.

Firstly, throughout the thesis I generally prefer to use the term ‘psychoactive’ instead of the culturally loaded term of ‘drug’. Psychoactive, as the name implies, refers to substances which have an effect on the brain, so as to change a person’s perception of themselves and their reality in some way. Other possibilities include ‘entheogen’, meaning literally ‘to access the divine within’, or ‘psychotomimetic’, meaning ‘to mimic psychosis’ (Metzner, 1998). Both of which, while useful to describe some circumstances and experiences, are most definitely not useful for others.

Secondly, I will be writing specifically about a group of psychoactive substances known as the hallucinogens. Some authors (Mabit, 2002; Pendell, 2005) find this term problematic as it has historically implied a focus on visual hallucinations, to the exclusion of other kinds of experience. Because of this, and despite the even more culturally loaded connotations, many authors prefer the term

'psychedelic', coined by Humphrey Osmond and Aldous Huxley, meaning "mind manifesting". I agree that this is a useful term, but it has a residual stigma from 1960s, LSD-fuelled radicalism and accompanying political hysteria that I worry could detract from any positive discussion of psychedelics. 'Hallucinate', however, comes from the Latin *alucinare*, meaning 'to wander in one's mind', and I agree with Metzner (1998) that this term needs to be revived. This leaves open more than just visual possibilities and is an apt description of the qualities inherent in the journeys undertaken with the aid of the plants mentioned throughout this thesis.

Now, to return to the main discussion of why we are here. In the following chapter (Chapter 2) I outline the contemporary intolerance of Western society towards (certain) psychoactive substances, and ask the question: if this intolerance is not based in economic rationality or public safety, then what is the driving force behind the last century's so-called War on Drugs? To answer this I delve into the history of herb use in pre-modern Europe, exploring both the practices of those accused of practicing witchcraft, and the reasons for their persecution. I propose that they lie in the dualistic paradigm that forms the foundation of the Western rational mindset, and that the contemporary "War on Drugs" is nothing less than a modern-day witch-hunt.

In Chapter 3 I use an Amazonian psychoactive tea called ayahuasca as a case study to unravel Western culture's tendency to invalidate, indeed, demonise,

other culture's use of psychoactive plants. I do this by providing a compelling account of the long history and complex cultural importance of ayahuasca use for both indigenous and mestizo populations in South America, as well as by contemporary psychotherapists, illuminating the profound spiritual and psychological benefits that come from its use.

Chapter 4 centres on the Deep Ecology notion of the ecological self, which I posit is an essential part of the process towards sustainability. Drawing on the potential positives of hallucinogens uncovered in Chapter 3, this chapter suggests that the ritualised and mindful use of psychoactive plants, as used by shamans around the world, could hold exciting possibilities for achieving the realisation of our ecological selves, and hence point us in the direction of a more sustainable society.

## Chapter 2 Plant-Use Persecution and the Dualistic Paradigm

*With the ascendance of monotheistic cults, a great many ... plant luminaries were assimilated to a false lexicon of demons, and the Art Magical, once the pursuit of sages, was made heresy. Eventually Nature herself came to be viewed as an evil spirit, representative of powers to be bound, exploited, and civilised. Daniel A. Schulke, *Viridarium Umbris, The Pleasure Garden of Shadow* (Pendell, 2005, p. 241)*

*It is time for every nation to say 'no' to drugs. It is time for all nations to say 'yes' to the challenge of working towards a drug-free world. United Nations Secretary-General Kofi Annan, 1998 (in Tupper, 2008, p. 356)*

The use of psychoactive substances for recreation, spirituality and medication is common place around the world, as thriving alcohol, coffee and pharmaceutical industries are testament to. In the past century, however, Western nations have been exerting their global influence to convince others to restrict the use of nearly all psychoactive substances that aren't already either the drugs of choice for policy makers (alcohol and caffeine) or the product of powerful industry groups (pharmaceuticals). As a united front they implore those nations slow to get on board to curb the dangerous plague of drugs sweeping the globe and *say 'yes' to the challenge of a drug free world* (Tupper, 2008, p. 356). In practice this challenge has meant a multibillion-dollar global war against those who use and trade currently illegal substances, and attempts at wholesale eradication of particular plant species.

In this chapter I give a background on the contemporary prohibition of certain psychoactives, and suggest that prohibition is not as rational a process as it is made out to be. I suggest that the origins of this approach to the use of psychoactive substances lie further back in our cultural history, and that prohibition today reflects the persecution of herbalists for witchcraft in pre-modern Europe. I posit that both of these phenomena are tied to the historical development and expression of the dualistic paradigm prevalent in the Western world view.

### **Questioning the “War on Drugs”**

The regulation of psychoactive substances in Australia extends back to the 19<sup>th</sup> Century. Though tobacco and alcohol were already under some government regulation as taxation revenue streams, other drugs were paid little attention until the influx of Chinese migrants during the gold rushes that characterised the latter half of the century. Likely fuelled by an underlying racism and suspicion towards the Chinese, amongst the white population a campaign emerged arguing against the unfairness of taxes and other regulations placed upon the “white man’s luxuries” of alcohol and tobacco, while the favoured luxury of the Chinese, opium, was imported and used without restriction. This, combined with some vocal moral panic regarding the threats to white women and society at large posed by opium dens, safety concerns regarding opiate-containing patent medicines, and similar issues being raised internationally, lead to the gradual implementation of controls on opium and its derivatives (Carney, 1981, pp. 165-179).

Following international trends, Australia came to develop increasingly rigid, complex and far-reaching drug laws over the coming century. These were strongly influenced (arguably like most other countries) by the policies of the United States, in particular the “War on Drugs” instigated by the presidency of Richard Nixon in the early 1970s as a response to the psychedelic radicalism of the 1960s. The same era heralded the United Nations Convention on Psychotropic Substances, a major international framework for drug use restriction and persecution. Wodak (2007) notes that although the “War on Drugs” policy of the US *did not result in reduced deaths, disease or crime, and the costs of this approach to government have been considerable, it was seen as politically effective and has been adopted in many other countries* (p. 60). In the post-Whitlam era in Australia, right-wing politicians (Johannes Bjelke-Peterson being a case in point) whole-heartedly jumped on the “tough on drugs” bandwagon, calling for and manufacturing increasingly harsh drug legislation and committing vast resources to solving the new problem of drug crime. The “drug war” in Australia has been largely responsible for the nation’s burgeoning prison population, with an estimated 10% of inmates convicted for drug charges, and perhaps up to two-thirds convicted for drug-related crime. The total cost of the first 25 years of this war in terms of law enforcement, justice and incarceration is estimated at \$13 billion (A\$1998) (Jiggins, 2005, pp. 1-9).



While the stated goal of drug prohibition is to reduce the burden of drug use on society, the impact of prohibition itself seldom appears in public policy debates. Mishan (2001) notes the following costs to society of drug prohibition that should be taken into consideration when forming policy, but seldom are:

- Expansion of organised crime and associated rise in violence.
- Diversion of law enforcement resources away from non-drug-related crime.
- Loss of human resources to the economy as some people shift to black market income.
- Increased cost to government for administration of prohibition laws means decreased cost for other services.
- Widespread corruption in law enforcement.
- Increased state control (eg surveillance, extra police powers) means decreased civil liberties.
- Lack of quality regulation for substances adds unnecessary extra levels of risk to the user.

The ecological costs of both production and destruction of illegal crops are also cause for consideration, for reasons of lack of environmental regulation over growing practices (such as fertilizer and pesticide application) and potential ecological damage caused by herbicides used in eradication of crops (Joyce, 1999). The cultural costs of prohibition to indigenous peoples for whom currently illegal plants (such as coca) have been considered sacred for millennia have been somewhat accounted for by a “religious use” clause in the

Convention, but this is only in frameworks governing bodies deem to be legitimate (for example, the Native American Church). The spiritual importance of prohibited plants to Amazonian indigenous peoples will be discussed in the following chapter.

Clear, evidenced based reasons are seldom given for the banning of substances and or plants. It seems that there is a tacit understanding among policy makers, and the public at large, about why drugs should naturally come under strict legal controls. A recent example the complete lack of reasoning applied to the scheduling of plants and psychoactive substances in Australia was the 2002 banning of *Salvia divinorum* (Salvia, Diviner's Sage, Ska Maria Pastora), a hallucinogenic plant in the mint family originating from and traditionally used in Mexico for cultural and spiritual practices (Siebert, 1994). Until 2002 its use in Australia, and the rest of the world, was entirely legal. In 2002, however, the National Drugs and Poisons Schedule Committee (NDPSC) decided that the plant should be listed as Schedule 9, the same schedule given to addictive and potentially deadly drugs such as heroin, and the first such ruling in the world. The reasoning behind this decision is hard to follow. The Record of the Reasons (NDPSC, 2002) (perhaps an inaccurate title) provides the following rationale: *Salvia divinorum* is being widely promoted on the internet as a legal hallucinogen → recreational use of hallucinogens = potential for abuse → therefore we must ban this plant. It appears then that the "reason" given for the complete criminalisation of *Salvia divinorum*, which has not proved to be

even a minor public health threat, is that it is a hallucinogen that is being used recreationally. The NDPSC states nowhere in this document, or in any others, or on its website why use of hallucinogens is grounds for regulation, or indeed criminalisation, of a particular substance or plant. Personal health risks appear not to be a factor in the scheduling of hallucinogens because other potentially deadly hallucinogenic plant drugs, such as *Brugmansia* and *Datura* species (of the deadly nightshade family, discussed later) are legal to grow in suburban gardens for ornamental purposes and regularly cause accidental harm to curious users.

Dialogue between the UK Science and Technology Committee and the Minister responsible for drug policy, Vernon Croker, mirrors the global situation:

**Dr Harris (of the Committee):** *If the ACMD [UK Advisory Council on the Misuse of Drugs] reviewed the evidence and that review made recommendations to you, are you saying now it is not worth them doing it because your decision on this will not be evidence based, it will just be a reassertion of your "no intention to reclassify ecstasy"? Even if they said there will be fewer deaths, for whatever reason, if it is reclassified, are you saying that you will never consider an evidence-based decision on this drug?*

**Mr Coaker:** *I am not saying that at all. What I am saying is the ACMD, of course, can conduct research and look at whatever they wish to with respect to drugs and make recommendations to the Government. What I am saying quite clearly is that we have no intention of reclassifying ecstasy (SteveR, 2007).*

If drug prohibition is in fact disastrous policy – socially, economically, ecologically, and in health terms – and decisions made about the restriction of certain plants and substances are often not based on evidence, the question remains: why have these policies have had consistent popular support? In the following section I hope to illustrate that this intolerance towards users of psychoactive substances, in particular those found in plants, has its roots in an inherent, systematic intolerance of those associated with the wild, feminine, and irrational. To do this, we need to trace the history of such plant use in pre-Modern Europe.

### **Witch-hunts, War on Drugs and Dualism: interconnected origins**

A variety of plants used across Europe were used for general healing purposes. Most of them, such as Chamomile (*Matricaria chamomilla*) for its anti-inflammatory, antiseptic, antispasmodic properties; Saint John's Wort (*Hypericum perforatum*) for easing anxiety and because it “brings light into the soul, and chases away the darkness” (Storl, 2003b, p. 12); and Calendula (*Calendula officinalis*) for love magic and wound healing (Ibid. p. 12-13) were relatively safe and in common use.<sup>1</sup> Others, however, required skilled practitioners for both harvest and preparation. These were the powerfully hallucinogenic herbs of the nightshade family (Solanaceae).<sup>2</sup>

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<sup>1</sup> For further reading: (Chevallier, 1996; Hoffmann, 1983; Lad & Frawley, 1986; Tierra, 1998).

<sup>2</sup> Characteristically ethnobotanical, the Solanaceae is a global family, containing over 3000 species world wide including such well known and utilised foods as eggplant, potato, tomato and capsicum, and – depending on perspective and intent – such medicines and poisons as

The plants of the nightshade family, including belladonna, henbane, mandrake, hemlock and thornapple, have been associated with witchcraft practices of both healing and magic since antiquity, as evidenced by the records of the ancient Egyptians and Greeks (Schultes, 1969, p. 254; Schultes et al., 2001, p. 86). Containing high concentrations of potentially deadly tropane alkaloids<sup>3</sup> such as scopolamine, atropine and hyoscyamine (Sidky, 1997, p. 196), the stupefying action of the nightshades was utilised by lay surgeons (most often housewives) in combination with other strong-acting plant extracts, such opium, as a general anaesthetic known in its various forms as *dwale*<sup>4</sup>. A preparation of physiologically active (eg henbane) and benign (eg lettuce) plant material was combined with fat and boar's bile to aid in emulsification, boiled briefly and added to wine. The patient was then to be set against a warm fire and instructed to drink the brew until she or he fell asleep, whence the "carving" could begin. *Dwale* was very effective in sending patients into pre-operative oblivion, but due to the highly variable affects of the nightshades<sup>5</sup>, and the

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deadly nightshade / belladonna (*Atropa belladonna*), mandrake (*Mandragora officinarum*), and henbane (*Hyoscyamus niger* and *H. albus*) and thornapple (*Datura stramonium*) of Eurasia, toloache (*Datura* sp.) and tobacco (*Nicotiana tabacum*) of Central and South America, and pituri (*Duboisia hopwoodii*) of Central Australia.

<sup>3</sup> "Tropane" refers to the class of alkaloids [nitrogenous basic chemical] built around a peculiar seven-carbon ring with a nitrogen bridge over the centre. (Pendell 2005, p. 243)

<sup>4</sup> The word has a Scandinavian origin meaning "trance" (Shultes et al., 2001, p. 88).

<sup>5</sup> Tropanes have a biphasic mode of action, making dosage hard to estimate: low doses of scopolamine cause drowsiness, amnesia and depressed heart rate, high doses cause excitement,

variations in tolerance for other additives such as opium, the step to coma and death - or at least psychosis<sup>6</sup> - was but a small one. As tropane alkaloid concentration varies according to the season and time of day harvest occurs, a skilled practitioner with detailed botanical knowledge and understanding of the potion's potential effects on different types of people was necessary to avoid death by respiratory failure or cardiovascular collapse (Baker, 2005, p. 184; Carter, 1999)<sup>7</sup>. Such practitioners were revered by the peasantry, and feared by the authorities – similar potions could be turned to poisons with ease (Mann, 1992, pp. 23-29; Sidky, 1997, p. 204). These lay healers were the same women who were to be tried for witchcraft crimes, persecuted for their association with magical and medical plant knowledge.

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hallucination and cardiac acceleration; low doses of Hyoscyamine and atropine have limited effects, but high doses produce a stimulatory effect (Pendell 2005, p. 244).

<sup>6</sup> The same is true of modern recreational use of the nightshades by people looking for a legal high. Despite the toxicity of many hallucinogenic Solanaceous plants, they remain legal throughout the world. Use of Datura teas, for example, often results in hospital admission and days or weeks of severe psychosis. For news articles, see (erowid.org, 2008).

<sup>7</sup> The tropanes continue to be used in modern medicine, for example hyoscine (scopolamine) plasters are used as an antiemetic (Mann 1998 p. 82) and have been used in combination with morphine (“Twilight Sleep”) for semi-general anaesthesia and amnesia during childbirth. This is no longer practiced due to the negative side effects on both mother and child (MedicineNet.com, 2008). Old recipes, like *dwale remind us... of the links that once existed between medicine and magic... and that much medicinal advance in the 20<sup>th</sup> Century has come not from new drugs, but rather from our ability to administer old ones accurately, [serving] to remind us... of the enormous debt we owe to the past* (Carter, 1999, p. 1626).

It is with the nightshades that we discover the truth behind the old stereotypes of witches flying on broomsticks to wild, devilish orgies atop great mountains. These same plants employed for their anaesthetic and analgesic effects were also used for the powerful visual, gustatory and olfactory hallucinations they produce (Sidky, 1997, p. 196). The nightshades differ from other hallucinogens (eg psilocin, mescaline, LSD) in that they produce visions that seem to those under the influence to be tangibly real, as though reality is “normal” and not as though one has taken a drug (Sidky, 1997, p. 196)<sup>8</sup>. John Baptist Porta, a physician against witch-hunting reported experimenting with such substances on his “chamber-fellows”, describing one thinking he was a fish, swimming around on the ground, and another thinking he was a grass-eating goose (Pendell, 2005, p. 245). An effect frequently reported from use of hallucinogenic nightshades is the sensation of flight (Sidky, 1997, p. 199), often to places of great feasts and orgies, combined with transformation into an animal or a bird, and encounters with otherworldly beings (Duerr, 1985).

The magic ingredients of the nightshades are fat soluble, and as such are easily absorbed by the skin. The witches would prepare their ‘flying ointment’ (or salve) by combining the herbs henbane, mandrake and belladonna with fat, and applying it to areas of thin skin for the best absorption (Sidky, 1997, pp. 196-199). Often, a broomstick or pitchfork was greased with the salve and inserted

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<sup>8</sup> Under the influence of other hallucinogens, such as the tryptamines, one can distinguish between the reality of the “real” world, and that caused by the drug.

into the vagina, henceforth resulting in the rumours, and eventually fairy tales of witches “flying” away on broomsticks (Storl, 2003c, p. 51). Evidence for this practice is found in a 1324 British witch trial statement that reported:

*[I]n rifleing the closet of the ladie, they found a Pipe of ointment, wherewith she greased a staffe, upon which she ambled and galloped through thick and thin, when and in what manner she listed* (Schultes et al., 2001, pp. 89-90).

The women who utilised the nightshades and other plants in both healing and magic increasingly suffered persecution from both ordinary peasants and systematically through the Catholic Holy Inquisition. From the 14<sup>th</sup> to 16<sup>th</sup>, centuries upwards of 100 000 Europeans<sup>9</sup>, most of them women (Merchant, 1980, p. 138), were persecuted, tortured and executed for practicing magic (Sidky, 1997, p. 23). The majority of witch-hunts had little to do with magic or the mission of the Church, but more often resulted from peasant-lead searches for justice for events they had no control over: *sour milk, infertility, failed crops, and the nastiness of poverty* (Pendell, 2005, p. 246), the product of desperate people looking to blame someone for their plight, and *caught in the machinery of a system of terror that demanded more victims every day to justify its existence* (Duerr, 1985, p. 3). It appears witches were often hunted down (and remember, a witch was just someone who knew about plants) whenever some

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<sup>9</sup> Kheel (1989, p. 101) puts this figure at 9 million. Of course, these figures don't take into account the sufferings incurred by indigenous South Americans inflicted in the name of the Inquisition (Leonard, 1942).



kind of catastrophic environmental event befell a population. From around the year 1100 to 1300, for example, Europe experienced a period of unusually favourable weather, followed suddenly by a dramatically cooled climate, resulting in failed crops and famine. This period was then followed by widespread outbreaks of Bubonic Plague, and subsequently an explosion in witch-hunts, trials and executions compared with the preceding era of favourable weather (Behringer, 2004, pp. 56-57). While it is true that the witches were (and are) a *symbol of the violence of nature [who] raised storms, caused illness, destroyed crops, obstructed generation, and killed infants* (Merchant, 1980, p. 127), to understand their persecution, and by extension, the persecution of psychoactive plant users today, we need to look deeper into one of the fundamental characteristics of the Western mindset. The witches were targets of persecution because their knowledge and use of plants naturally gave them the role of mediator between the human and more-than-human realms. In addition, the witches spent much of their time – or even lived – at the boundary between the cultivated (human) and wild (more-than-human). For much of European history, this place was the hedgerow.

The hedgerow was a boundary between the forest and cultivated lands that surrounded European settlements from Neolithic times. Formed from the thickening of thorny bushes in response to the grazing of domesticated animals inside its borders, it served as a natural barrier keeping both predators (and hungry deer) out, and livestock in. It was the place where the most useful plants

for healing and magic grew, and herbalists typically spent a lot of their time there gathering plants (Storl, 2003b). From this association we get the word “hag”, which is related to the word “hedge” (Harper, 2001), and once simply meant *the woman of the hedgerow* (Storl, 2003a, p. 32). The contemporary negative connotations of the word “hag” as *an ugly old woman* (Soanes & Stevenson, 2005) are a product of centuries of stigmatism associated with witchcraft. A familiarity with the between-worlds place at the edge of the settlement, and knowledge of the worlds beyond, is symbolically important for the relationship the witches had with the rest of their community. David Abram, in his discussion on Balinese shamans, explains the need of the community to spatially represent the symbolic position of the shaman as an intermediary between realms. The shaman will almost always live and work on the outskirts of the village, at the boundary with the forest (Abram, 1996, pp. 6-7), and the magic they practice will inevitably rest on the interconnections between the worlds of the forest and village. As Abraham (1996) explains, the *shaman or sorcerer is the exemplary voyager in the intermediate realm between the human and the more-than-human worlds, the primary strategist and negotiator in any dealings with the Others*. Amongst the Shipibo-Conibo of Eastern Peru, the shaman is seen as *a manipulator of energies*, again with the role of strategist, balancing the energies between the worlds of the living and those of the dead (Illius, 1992, p. 76). Similarly, the witches were the shamans of the village, journeying to the spirit world of the plants, to assert both positive and negative influence on the world of the human.

The hedgerow helps illuminate why the witches were persecuted. If we look at the two sides of the hedgerow as a dualism, we see on the one side wild, uncultivated, chaotic nature – where the magical nightshades grew – and on the other the cultivated, secure, controlled human sphere. Dualism is *the process by which contrasting concepts (for example, masculine and feminine gender identities) are formed by domination and subordination and constructed as oppositional and exclusive* (Plumwood, 1993, p. 31). Examples of dualism (and this list is by no means exhaustive) may include:

- Human / Nature
- Culture / Nature
- Mind / Body
- Mental / Manual
- Reason / Nature
- Rational / Intuitive (Emotional)
- Master / Slave
- Masculine / Feminine

Importantly, dualism is more than simply a set of contrasting pairs, and should not be confused with distinction or dichotomy (Davison, 2001, p. 79). What is important here – and what makes these pairs dualistic – is how they are treated in relation to one another. Everything associated with the human / rational / masculine sphere (ie values, real or supposed qualities, associated areas of life) will necessarily dominate over all that is associated with the nature / emotional

/ feminine sphere, and in no way can any of the pairs be seen as having equality (Plumwood, 1993, p. 47). In explanation of this relationship between the two spheres, Plumwood notes five essential characteristics of dualism:

1. Backgrounding, ie – the Master Subject’s reality is the “main event”, and all else (ie nature) is relegated to a background role of necessity, supporting and in service of the Master.
2. Hyperseparation, ie – in no way can Master and Subject (or any other dualistic pair) be seen as equal and or similar.
3. Incorporation, ie – the subordinate becomes defined in relation to the Master who is the “source of cultural meaning”, instead of having an identity in its own right.
4. Instrumentalism, ie – lacking inherent meaning, the subordinate is best utilised to serve the master subject.
5. Homogenisation, ie – all subordinates become the same, a collective “them” or “those” lacking the ability to form discrete identities, and as in (4), defined only in relation to the Master Subject as “not-Master” (Davison, 2001, p. 81; Plumwood, 1993, pp. 48-55).

It is possible, then, to speculate that the hedgerow is the foundational dualism of Western culture, the symbolism of which has endured in the Judeo-Christian story of the walled Garden of Eden (Muller-Ebeling, Ratsch, & Storl, 2003). In the imagery of early European settlements, we see that the human cultivated

side of the hedgerow necessarily dominated and subordinated the nature side in an attempt to create a safe haven free from the chaos and danger of wild nature outside the boundaries. The facilitation of communication between the human and more-than-human world (through the use of psychoactive plants) placed the witch irrevocably in the realm of nature, as the notion of radical exclusion implies a lack of continuity between the human and nature spheres (Plumwood, 1993, p. 49). This meant that by crossing the boundaries between the two with the use of magical and medicinal plants, the witch could not figuratively sit in the sphere of the human, because dualism does not recognise that such a connection is possible.

Nature as a symbol of destruction and chaos existed simultaneously with the image of nature as a benevolent, nurturing mother. Merchant (1980) suggests that up until the period of the Enlightenment, the latter dominated the world view, although there was a gradual shift, over many centuries, away from the embrace of the nurturing mother, towards a view of nature as a wild, chaotic and dangerous female (p. 2). She was a woman needing to be tamed and controlled, much the same as those women practicing their herbcraft were being burned at the stake (p. 132), for their *heretical perversity and apostasy* (Leonard, 1942).

Francis Bacon, a celebrated “father of modern science” (Merchant, 1980, p. 164) cunningly utilised the metaphor of nature as wild and chaotic as justification for

a new philosophy of domination of nature for the purposes of technological and empirical expansion that characterised the 14<sup>th</sup> to 17<sup>th</sup> centuries. The dominant image of the earth as “nurturing mother” had served as a check on the exploitation of resources, for *[o]ne does not readily slay a mother, dig into her entrails for gold or mutilate her body* (Merchant, 1980, p. 3) (Merchant 1980, p. 3). Bacon made it his task to facilitate the movement away from this attitude toward the earth, instead formulating a philosophy that proposed the active subjugation of nature for the combined pursuits of science and the plundering of nature’s resources to serve human ends. In a social milieu of witch persecution, the key metaphors for Bacon’s philosophy of domination centred on the torture of accused women:

Much of the imagery he used in delineating his new scientific objectives and methods derives from the courtroom, and, because it treats nature as a female to be tortured through mechanical inventions, strongly suggests the interrogations of the witch trials and the mechanical devices used to torture witches (Merchant, 1980, p. 168).

Bacon’s philosophies of the domination of nature were further strengthened by the Cartesian development of mechanism, which together are strongly characteristic of the modern Western paradigm. Mechanism effectively situated all attributes of rationality and reason with the human and left nature as nothing but inert matter, further legitimating its manipulation (Merchant, 1993,

p. 270), and invalidating the witches' role as mediator between the worlds of nature and humans, as no mediation could be possible if the more-than-human world was essentially dead.

The drastic shift away from an organic, storied perception of the cosmos towards one that could be explained with the metaphor of the machine was not an easy or obvious transition (Merchant 1980, p. 193). Plumwood argues that before dualism could become a prominent element of Western thought, it was first necessary to situate a "mind" at the centre of humanness, and then to locate reason as the essential character of mind. She cites Plato as the architect of this psychological repositioning, which Descartes cultivated to finally separate humans from animals, cementing the idea that only humans (the 'ideal' human, man) have the capacity for rational thought and because of this are fundamentally separate from and dominant over nature (Davison, 2001, p. 80). Due to its lack of rational intellect, and propensity towards chaos (at times), the body became identified with nature, and the mind pure rational intellect, the pinnacle of humanness, hence enforcing a mind/body schism (which I will come back to in the following chapter).

The use of magical (psychoactive) plants remains associated with irrational nature and carries the same stigma in Western culture that practices of witchcraft did. There is still a need for control and domination of the irrational, and hence we have a situation where global policy is directed at the eradication

of psychoactive substances that don't fit within the rational paradigm. The voice of the Other in Western culture – that outside the rational sphere – continues to be silenced and subordinated by the dominant paradigm. The West's intolerance towards psychoactive plants is so pervasive it appears to be exerting its influence not only on policy makers, but on how we write our cultural histories. The literature search for this chapter has shown that many supposedly comprehensive texts<sup>10</sup> on European witchcraft and magic in the Middle Ages including discussions on witches' delusions of flying to the tops of mountains for the wild orgies of the Witches' Sabbat make scant mention of any herbs involved, let alone those known to produce strong hallucinations. One text, discussing Old Norse shape-shifting stories, describes the protagonist leaving his body behind in order to change into a variety of creatures to travel and carry out various deeds: *...only his soul assumed temporary shapes* (Raudvere, 2002, p. 104). There is no mention of the possible involvement of psychoactive herbs (or fungi); strange considering it is just these effects one would expect from the consumption of the hallucinogenic alkaloids of the nightshades. Another text describes the elaborate ritualistic processes required for harvest of the sacred mandrake (incorrectly labelled "*atropa mandragora*" rather than *Mandragora*

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<sup>10</sup> In English: this lack may not apply to other language texts. Germany, for example, has a well-established ethnobotanical tradition, and may yield better results with regard to European psychoactives. For those proficient in German, see the bibliography of (Muller-Ebeling et al., 2003).



*officinarum*), whilst failing to mention at all that a possible reason for its special status may have been its psychoactive properties (its human-shaped root aside) (Wilson, 2004, p. 343). Still another author notes that “drugs” may be used in specifically non-European civilisations to inspire the divine within, but throughout his otherwise comprehensive text on the history of witchcraft and witch persecution in Europe, he makes no mention of nightshade use by witches (Behringer, 2004, p. 141). Even Merchant, with her groundbreaking ecofeminist history *The Death of Nature* (1980), fails to mention the role of psychoactive plants (she does make small mention of love potions and herb-craft) in the oppressions of witchcraft, and indeed women. The cause of these admissions in such wide-ranging and well referenced publications is open to speculation, however I suspect it may be a combination of the stigma of psychoactive substances effecting their perceived validity as a subject of enquiry, possible negative consequences in their professional and personal lives, the denial of psychoactive use as part of our collective history, and a sustained prejudice against the witches themselves. This illustrates the point that the dualistic paradigm still dominates Western culture, valuing the rational, intellectual and masculine over nature, the feminine and the intuitive, and refusing to enter into serious dialogue about the issue of psychoactive plant use. I would suggest that the main reason is cognitive dissonance – we have been so well trained to distrust and avoid drugs that they are invisible to us.

## Summary

In this chapter I have discussed the contemporary intolerance of Western culture towards the use of psychoactive substances as it is currently known under the name “War on Drugs”. I suggested that the negative perception of such activity has roots in the witchcraft persecution of pre-modern Europe and explore the herbal practices that were construed as witchcraft, and the witches’ association with the boundary between the civilised and wild, the dualism of the hedgerow. I suggest that both the witches’ persecution and the contemporary prohibition of psychoactive plant use today originate in the deeply held dualistic world view of the West. This world view privileges that associated with the rational sphere of the human mind above that associated with the irrational sphere of nature and constructs the two as irreconcilably exclusive. The use of magical plants by the witches was relegated to the sphere of nature, and as such suffered persecution from the dominating rational sphere. Contemporary users of psychoactive substances suffer a similar oppression, rendering the global “War on Drugs” nothing less than a modern-day witch hunt. There is a critical need for positive examples of psychoactive plant use to become known and understood in the West. The following chapter hopes to provide this.

## Chapter 3 Lessons from the Vine of the Soul

*The river is a man with his feet at the river's mouth; his outspread arms represent the affluents, and his head the source. The man is shaking his flowing hair, out of which fall the leaves of a yajé vine. They drop into the river, and even whilst falling they turn into fish.*

Tukanoan Ayahuasca story (cited in Schultes & Raffauf, 2004, p. 21)

From deep within the Amazon rainforest of South America comes an extraordinary medicine known by its traditional owners to be a gift from the gods. Some say that it *liberates the soul from its corporeal confinement, allowing it to roam free and return to the body at will* (Schultes et al., 2001, p. 124). Called by many names, the medicine is most commonly known as 'ayahuasca' (pronounced ay-a-was-ka), from the Quechua language, roughly translating as "the vine of the soul" (Schultes et al., 2001, p. 124). One of the most revered sacraments of the Americas, ayahuasca is traditionally used for its medicinal, educational and divinatory powers, and is the spiritual foundation of many indigenous Amazonian cultures.

Using ayahuasca as a case study, I offer three challenges to rationalism that I contend refute the dualistic paradigm that shapes Western thought, and the negative Western perception of hallucinogenic plants. The first of these deals with indigenous knowledge, the second intuition and the collapse of the mind-body schism, and the third meets rationalism on its own terms and shows how in the case of ayahuasca, psychoactive substances not only need not be

dangerous, but can in fact be powerfully beneficial. Throughout I cite examples of ayahuasca's traditional and contemporary use that, with the support of recent pharmacological and psychotherapeutic studies, refutes the modern Western perception of psychoactive use as primitive, irrational, and immoral. For good reason is ayahuasca known as *the great medicine* (Schultes et al., 2001, p. 127).

### **Intuitive Knowledge: Plant Teachers and the Path to Healing**

Ayahuasca is a powerfully hallucinogenic tea traditionally brewed and used in indigenous societies across the Amazon region of South America. The name<sup>11</sup> refers to both the tea and the sacred *Banisteriopsis caapi* (Malpighiaceae)<sup>12</sup> vine from which it is made, and throughout this thesis I will use 'ayahuasca' to refer to the tea and 'caapi' to refer to plant material from the vine. In a traditional context the tea is made by brewing the bark from *B. caapi* (caapi), usually in combination with leaves from the *Psychotria viridis* (Rubiaceae) bush, known colloquially as chakruna (Schultes & Raffauf, 2004, p. 22). The decoction is made in different ways depending on location and tradition, but generally, sections of *B. caapi* are first cut into small pieces and pounded until the caapi is a fibrous mass (Shanon, 2002, p. 15). The caapi and chakruna are then soaked and squeezed in cold water, or boiled in water for several hours, with the mix

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<sup>11</sup> Also known in various indigenous languages as caapi, dápa, mihi, kahí, natema, pindé, yajé or yagé, and hoasca in Portuguese (Schultes et al., 2001 p. 124).

<sup>12</sup> There has been much taxonomical confusion over which *Banisteriopsis* species are the basis for Ayahuasca, for discussion on this see Ott (1994, p15).

reduced to a bitter tasting, thick liquid (Schultes et al., 2001; Schultes & Raffauf, 2004, p. 22). The tea may also contain various admixture plants for their special healing powers or qualitative effects on the drink (Ott, 1994, p. 30). Angel's trumpet (*Brugmansia* spp.), for example, may be added to treat delusions, tobacco (*Nicotiana rustica*) to treat poisoning, or Guatillo (*Lochroma fuchsioides*) to fortify the visions (Schultes et al., 2001, p. 134).

Ayahuasca is remarkable among the hallucinogens because its effects are the product of the combination of its constituent plants. Of this combination, its traditional users say that the caapi provides the strength, while the chakruna provides the light (Pendell, 2005, p. 147; Shanon, 2002, p. 15). In pharmacological terms, the "strength" of the caapi refers to the effects of its key psychoactive chemicals, a group of betacarbolines called the harmala alkaloids (harmine, harmaline, tetrahydroharmaline) (D. McKenna, Towers, & Abbott, 1984). Some users of ayahuasca only use the caapi vine in their brew. The effects of the harmala alkaloids alone are a bit ambiguous, ranging from *a feeling of inebriation, but not ... visions* (Shanon, 2002, p. 16) to being a stimulant at low doses (Rodd, 2007) to being used traditionally in a number of countries (including Ecuador, France and the United States) in the preparation of sedatives (Ott, 1994, p. 55). The "light" (again, pharmacologically speaking), describes the effects of the chakruna's key psychoactive element, the powerful hallucinogen *N,N*-Dimethyltryptamine (DMT) (D. McKenna et al., 1984). This

potent psychoactive substance is found throughout the plant kingdom<sup>13</sup>, is produced by the brain<sup>14</sup>, and is used throughout the Amazon in the form of potions and snuffs (Ott, 1994, p. 47). When ingested, by inhalation (smoking), insufflation (snorting through the nostrils), or injection, DMT produces powerful psychedelic effects most colourfully described by National Geographic anthropologist Wade Davis:

*To have that powder [DMT containing snuff] blown up your nose is rather like being shot out of a rifle barrel lined with Baroque paintings and landing in a sea of electricity. It doesn't create the distortion of reality, it creates the dissolution (Davis, 2003).*

Generally, the DMT experience is characterised by closed eye visuals (Shulgin & Shulgin, undated) resembling *a shifting geometric surface of migrating and changing colored (sic) forms* often featuring spiritual or alien entities described as *dynamically contorting topological modules that are somehow distinct from the surrounding background, which is itself undergoing continuous* (T. McKenna, 1991, pp. 36-37). The experience is of very short duration, the full effects lasting around 20 minutes (Halpern & Sewell, 2005, p. 520).

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<sup>13</sup> For example: various *Acacia* species including *A. phlebophylla* (Mount Buffalo Wattle) and *A. obtusifolia*, *Mimosa hostillis* (Juarema), *Desmanthus illinoensis* (Bundle Flower) and *Anadenanthera* species (Schultes et al., 2001, p. 138)

<sup>14</sup> Studies (Strassman, 2001) have shown that DMT is produced by the pineal gland in humans. Strassman suggests that DMT may be released in the brain at times such as birth, near-death experiences, psychosis and mystical experiences. Its production has even been suggested as explanation for perceived "alien abductions".

Taken by itself, DMT is not orally active as it is broken down by monoamine oxidase (MAO), an enzyme of the gut (in other words, if you eat it, nothing will happen). Now for the remarkable bit: Scholars are at odds to explain the seemingly unlikely chance of anyone discovering, in a vast forest of an estimated 80 000 higher plant species (Schultes & Raffauf, 2004, p. 14) that the harmala alkaloids contained in the caapi act as MAO inhibitors (MAOIs), and which when taken in combination with chakruna, render the DMT orally active (D. McKenna et al., 1984; Schultes et al., 2001, p. 127). The combination produces visuals similar to those of taking DMT alone, taking the form of *fireworks or kaleidoscope-like designs, flashing colors (sic) fantastic mandalas, or travels to another world* (Schultes et al., 2001, p. 139), but with a higher degree of subjective content (meaning) (Mabit, 2002), and lasting for many hours. It is the *biochemical version of the whole being greater than the sum of the parts* (Davis, 2003). The visions (and other phenomenological qualities) are used by *ayahuasceros* (shamans who have mastered the use of the brew) to *transform into jaguars, ...to divine the future, to adjudicate quarrels, to perform sorcery, to identify hunting and fishing areas, and to heal illness* (Langdon, 1992, p. 41).<sup>15</sup>

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<sup>15</sup> This applies to all combinations of MAOI and tryptamine. DMT-containing *Acacia* bark mixed with harmala alkaloid-containing *Peganum harmala* (Syrian Rue), for example, would produce a similar effect to the combination of caapi and chakruna (Ott, 1994). See (Shanon, 2008) for speculative discussion of this particular plant combination in the context of Biblical events.

The discovery of ayahuasca – *a most ingenious piece of work, surely one of the greatest pharmacognostical discoveries of all antiquity!* (Ott, 1994, p. 48) – is evidence of the skill and complexity of the indigenous Amazonia knowledge systems, showing a level of sophistication *beyond* advanced modern botany, psychopharmacology and psychotherapy, as the indigenous Amazonians discovered MAOIs at least three thousand years before Western science (Mabit, 2002, p. 28). This appears remarkable to us in the West because of the deeply embedded belief in our society that it is not possible for illiterate, uneducated (in the Western sense) people to have a deep understanding of botany, chemistry and psychopharmacology, and hence the ability to make such discoveries. Indeed, this is a product of the eurocentrism which *underlies and justifies modern forms of european colonisation, which understood indigenous cultures as 'primitive', less rational and closer to children, animals and to nature* (Plumwood, 2002, p. 9).

The discovery of the magical combination of caapi and chakruna cannot be put down to chance – both plants offer little that would make them an appealing food choice, and the taste of the tea itself has been described by some *as the worst that they have ever come across in their entire lives* (Shanon, 2002, p. 56). Rather, it is the result of a highly interconnected world view, fully integrated into the lives of indigenous Amazonians.



[T]he Indian's ethnobotanical knowledge of the natural environment is not casual and is not something he assimilates through gradually increasing familiarity and repeated sense experience; it is a structured, disciplined knowledge which is based upon a long tradition of enquiry and which is acquired of necessity as part of his intellectual equipment for biological and social survival (Reichel-Dolmatoff, 1976, p. 110).

A large number and variety of Amazonian cultures with little or no communication between them due to the density of the forest and the vastness of distances have independently made the MAOI / DMT (or other tryptamine) connection. Over 70 distinct cultural groups across the Amazon are known to have used ayahuasca (Ott, 1994, p. 14), and the many different names the tea is known by suggests a long history of use. The vast array of other entheogenic substances also in use throughout the Americas, suggests that rather than being primitive, backward and "unscientific", there has been indeed widespread and historical pharmacological knowledge among the indigenous peoples of the Amazon. When asked about their extensive pharmacological knowledge, the indigenous Amazonians state, "the plants told us" (Charing, 2007; Davis, 2003; D. J. McKenna, 1998).

Since the 15<sup>th</sup> Century Spanish invasion of the Americas, the indigenous peoples of the Amazon have undergone a great deal of physical and cultural displacement, through colonisation, the chaotic and widespread exploitation of

rainforest resources, and the subsequent mixing of Spanish, African and indigenous cultures. One consequence of this cultural emulsion has been the development of syncretic churches - which combine Catholic, African and traditional Amazonian belief systems and use ayahuasca as a sacrament at their services (Tupper, 2006, p. 3). Another, is the incorporation of indigenous shamanism as a system of healing into the general mestizo<sup>16</sup> population, though practitioners may not identify with any particular indigenous group (Luna, 1992, p. 231). “Ayahuasca retreats” are also appearing, catering for an increasing tourist trade based around spiritual and personal development (Winkelman, 2005, p. 211), and a desire for ecological connectedness through the use of psychoactive plants in a “traditional”, shamanistic setting (Dobkin-de-Rios, 2005, p. 205). In all of these kinds of ayahuasca ceremonies, there are some commonalities. The various contexts of ayahuasca use have a common element to them: intuitive communication between the “spirit” of the plants, and those partaking in the ayahuasca.

The credit for the characteristically psychedelic experience reported from the use of ayahuasca cannot be completely given to the psychoactive chemicals in the constituent plants. A vital component of the experience is the involvement of a shaman (*ayahuascero* or *maestro*), who acts as a guide for those partaking in the brew (Luna, 1992, p. 231). This is similar to the idea explicated by Leary, Metzner and Alpert of “set and setting”, indicating that not only does

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<sup>16</sup> Those of mixed Spanish and Indigenous cultural heritage.

psychopharmacology play a role in the user's experience, but also their own personal make-up and life experience, and the place and context in which they consume a psychoactive substance (Metzner, 1998). The *ayahuascero*, then, ensures the psychological, emotional and spiritual well-being of those in the ceremony.

The preparation for becoming an *ayahuascero* involves extensive periods of isolation, sexual abstinence and keeping a strict, usually bland, diet (Tupper, 2006, p. 2). Through these practices, the trainee *ayahuascero* will learn the ways different plants can be used for healing. A common method of obtaining this knowledge is to include the different plants with the ayahuasca mixture in order to learn directly from the spirits of the plants. If the *ayahuascero* is successful at following the requirements of their training, they will inevitably be "given" special healing songs, known as *icaros* from the spirits they encounter while using ayahuasca. The *icaros* are then used to facilitate ayahuasca healing sessions via communication with the spirit world, where the *ayahuascero* acquires powers from the spirits of plants or animals or deceased shamans (Luna, 1992, p. 232).

*He had drunk, and now he softly sang. Gradually, faint lines and forms began to appear in the darkness, and the shrill music of the tsentsak, the spirit helpers, arose around him. The power of the drink fed them. He called, and they came. First, pangi, the anaconda, coiled about his head, transmuted into a crown of gold. Then wampang, the giant butterfly, hovered above his shoulder and sang to him with its wings. Snakes, spiders, birds and bats danced in the air above*

*him. On his arms appeared a thousand eyes as his demon helpers emerged to search the night for enemies* (Harner, 1968).

The rhythm and tune of the *icaros* form an essential part of the experience of those taking the drink, the visions *controlled and evoked by the healer, who is the creative force in deciding which melodies to call on* (Katz & Dobkin-de-Rios, 1971, p. 326). When the patient is given ayahuasca to drink, they will be shown in their visions what force or person is responsible for their ailment. Once this is understood, often with the assistance of the healer's interpretations of the visions, the appropriate tonics, diet or other remedies can be recommended for treatment (Dobkin-de-Rios, 1970).

The use of *icaros* to guide the experience towards useful information, and the following interpretation of the visions by the shaman and their integration by the patient, allow an intuitive method of disease diagnosis in which the patient and the healer work together to achieve healing. Generally, the illness *ayahuasceros* treat is psychological or emotional in origin, *set within a matrix of magical beliefs concerning disease etiology* (Katz & Dobkin-de-Rios, 1971, p. 321). This contrasts greatly with the dominant paradigm of medicine in the West, which typically treats symptoms rather than underlying causes of illness. The belief that illness has supernatural origins is widespread among both the urban indigenous and mestizo populations, and coexists with modern Western concepts of disease. Ayahuasca, taken by both the patient and the healer, is conceived of both as a tool for divination of the source of the illness and as a

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guide as to what action should be taken (Luna, 1992). This conception challenges the Cartesian schism that separates body and mind, because in ayahuasca healing, diagnostic information is acquired through intuitive processes rather than through objective rational ones. The non-expert patient is capable of receiving this information during the experience and thus participates in their own healing, using the mind to treat the body. Concomitantly, the body is also used to treat the mind. An important and commonly experienced aspect of ayahuasca consumption is vomiting and or diarrhoea. Rather than perceiving this as an unfortunate side-effect, many of those who use ayahuasca say that this is part of the brew's healing properties and call it *la purga*, or "the purge". It is praised for its abilities to physically purge the spiritual and emotional parts of the self, the body healing the mind by incorporating mental waste into its self-cleansing mechanism (Katz & Dobkin-de-Rios, 1971, p. 326; Tupper, 2006, p. 2). Further, the experience itself often functions as a catalyst for emotional and psychological healing through processes similar to those understood by modern psychotherapy (see below). That a substance can initiate both physical and psychological healing illustrates the interconnectedness of mind and body and thus undermines the Western paradigm in which these two areas of existence are dualistically opposed.

### **Through the Lens of Rationalism**

Unwilling to take the word of indigenous researchers who have undergone intensive psychopharmacological studies of psychoactive plants for generations, Western culture usually relies on science to provide the evidence for already

established truth. Contemporary research has strongly indicated that the ingestion of ayahuasca in a supportive and carefully managed environment, such as that provided by the *ayahuasceros* or syncretic churches, has beneficial effects on the mental health and wellbeing of participants.

In response to a review of the legislation regarding the legal status of ayahuasca in Brazil (which was legal at the time and remains so), the UDV approached a group of eminent ethnopharmacologists to carry out a study into the pharmaceutical effects of ayahuasca (hoasca in Portuguese). Upon eventual acquisition of funding, a pilot study, which has come to be known as the Hoasca Project, was made in Brazil in 1993. Dennis McKenna (1998) argues that *[t]he result was one of the most comprehensive multi-faceted investigations of the chemistry psychological effects, and psychopharmacology of a psychedelic drug to be carried out in this century.*

The results from the study of adolescent members of the UDV participating at least once a month in services where ayahuasca was taken indicated that the UDV members, compared with control subjects of similar background, showed less symptoms of anxiety, body image dysmorphia and attention deficit disorder (Da-Silveira, Grob, de-Rios, Lopez, Alonso, Tacla, & Doering-Silveira, 2005). Adult members of the UDV have also been found to be less likely than others from the same socio-economic background to abuse other drugs, engage in violent acts, or suffer from anxiety or depression based mental illness, despite having a

history of such behaviour prior to joining the UDV (D. McKenna, 2004). Santo Daime members in a separate study (Santos, Landeira-Fernandez, Strassman, Motta, & Cruz, 2007) yielded similar results. Indeed, *the regular use of hoasca [ayahuasca] in a ceremonial context seems to increase one's ability to psychologically adapt to the larger process of life* (Callaway, McKenna, Grob, Brito, Raymon, Poland, Andrade, & Mash, 1999, p. 255). The role of a supportive community cannot be underestimated in this situation, and indeed the set and setting for any psychoactive use needs to be carefully attended to yield the most positive and beneficial experience (Da-Silveira et al., 2005; Dalgarno & Shewan, 2005). However, the results of the Hoasca Project did suggest that the brew itself may be responsible for a significant component of participants' recovery from psychopathological illness such as alcoholism. It was found that sustained use of ayahuasca activated long-term change in the serotonin system, which is typically depressed in people afflicted with alcoholism. This mechanism is similar to that of contemporary pharmaceutical drugs used to treat depression (D. McKenna, 2004). While the Hoasca Project was the first of its kind, and its results only preliminary, they suggest further scientific research into the therapeutic uses of ayahuasca is essential. Anecdotal evidence of the healing power of ayahuasca abounds, and its long history of study and use by indigenous Amazonians also needs to be recognised.

The approach the mestizo shamans use for patients to identify their own illness has resonated with those who have a personal or professional interest in the

field of psychotherapy. The psychotherapist generally hopes to achieve the same goal as the *ayahuascero* – to treat the patient by providing the conditions for them to reach their own conclusions as to the cause of their suffering. The difference is that while the psychotherapist aims to do this by using methods of counselling, the ayahuasca healer does so through guiding the patient through their own visions of their illness, so that they may not only develop an awareness of their problems, but fully experience the depths of the problem, and perhaps, the solution.

Takiwasi is a centre in Peru dedicated to the treatment of people with drug addictions through a combination of modern psychotherapeutic and traditional shamanic techniques. The centre only accepts a small number of patients at a time (around 15), and all are voluntarily admitted. For the first few weeks of their stay, patients are treated with purifying, sedative and purgative plants. No pharmaceutical drugs are used. Over the following months, patients undergo a strict regime of ayahuasca ingestion and psychotherapy workshops. Throughout the treatment a strict diet is maintained, as well as other restrictions including sexual abstinence, and limitations to contact with the outside world. The everyday life is also integrated into the therapy, providing a holistic treatment. For those who complete the full course of treatment over about nine months, the centre boasts a success rate of two thirds of patients recovered from their addiction. The director of Takiwasi, Jaques Mabit, attributes the success of the



program to both the holistic approach to the therapy, and the psychological action of the ayahuasca itself:

*The exploration of the unconscious through Ayahuasca permits the rapid extraction of extremely rich and highly coherent psychological material, which can then be worked through with various psychotherapeutic methods (Mabit, 2002, p. 28).*

The use of ayahuasca in Western culture for both the treatment of addiction and other psychological disorders has great potential. A report by the Australian Bureau of Statistics (2006), *Mental Health in Australia: A Snapshot, 2004-05*, states that good mental health is essential for maintaining harmony and happiness for both the individual and the broader population. However, at the time of the survey, fully 11% of participants noted that they were suffering from a long-term mental illness, such as anxiety disorders or depression. The 1997 survey suggested up to one in five (18%) had suffered some kind of mental disorder in the past twelve months. Statistics such as these paint a grim picture for our society reaching its full potential and achieving sustainability. The mental health of individuals has far reaching implications: mentally unwell people are less likely to be productive in the work place, and be less involved with their community (ABS, 2006). In light of the current mental health crisis sweeping Australia, it would appear irresponsible of policy makers not to allow at the very least some kind of investigation into the potential therapeutic benefits of apparently promising treatments such as those currently utilising ayahuasca. The major barrier to this, as I have already discussed, is rational

Western culture's continuing denial of the Other's validity, as the psychoactive chemicals in ayahuasca remain outlawed in most countries.

### **Beyond Medicine**

Ayahuasca has more to offer Western culture than just medicine, although as I have discussed, our mentally troubled societies are in desperate need of this. Returning to the brew's traditional use, we are reminded by eminent botanist Richard Evans Shultes (1982, p. 206 as cited in Shanon, 2002, p. 15) of the pervasive presence of ayahuasca in indigenous Amazonian culture:

Probably no other New World hallucinogen – even peyote – alters consciousness in ways that have been so deeply and completely evaluated and interpreted. Caapi (i.e. Ayahuasca) truly enters into every aspect of living. It reaches into prenatal life, influences life after death, operates during earthly existence, plays roles not only in health and sickness, but in relations between individuals, villages, tribes in peace and war, at home and in travel, in hunting and in agriculture. In fact, one can hardly name any aspect of living or dying, wakefulness or sleep, where caapi hallucinogens do not play a vital, nay, overwhelming role.

The incorporation of ayahuasca into every facet of life for indigenous Amazonians says much about the importance of this brew for their sustained survival in the South American jungles and poses questions for the incorporation of ayahuasca into the lives of those raised in the dominant

paradigm of the West. Deviating from his more common scientific papers, Dennis McKenna ponders the future of the planet, and the potential of ayahuasca in righting many of the wrongs of Western culture's relationship with the more-than-human world, wondering if the *narrow scrutiny [of science] perhaps overlooked some of the larger implications of this ancient symbiosis with humanity* (D. J. McKenna, 2005, p. 233). Our rational society, in the midst of ecological, social and economic collapse, could gain from the experiences of indigenous cultures for which hallucinogens form the heart of their social organisation and spirituality. These diverse peoples, after all, have had much more success at sustainability than our industrialised society. Less than 400 years old, modern Western culture suffers from the delusion of human separation from the ecological community. It is this remnant of Enlightenment thought, of both separation from and domination over nature, that underlies the contemporary ecological crisis. Individuals in the West could therefore benefit greatly from ayahuasca, not only from its powers as a psychological purgative, but its ability, as found by its traditional users, to connect the individual to the wider ecological community.

## **Summary**

In this chapter I have hoped to provide the reader with an alternative vision of hallucinogenic plant use through the case study of ayahuasca. In the early section of the discussion, I explored the remarkable discovery by indigenous Amazonians of the magical combination of caapi and chakruna. The discovery of the visionary plant medicine ayahuasca illustrates the advanced and complex

botanical and psychopharmaceutical skills of the traditional users. Further, the complex intuitive knowledge required for its application as healing medicine, through the guidance of plant spirit helpers and *icaros*, refutes the claim by rational thought that psychoactive plant use is a primitive pursuit, and challenges the Cartesian mind / body dualism. I then spoke to rationalism on its own terms and provided the scientific evidence necessary for the validity of ayahuasca in the dominant Western paradigm, demonstrating ayahuasca's psychotherapeutic benefits for mental unrest and addiction.

Finally, I proposed that ayahuasca has much more to offer than healing of the mind and body: ayahuasca, along with similar plant medicines, has the potential to facilitate a spiritual reconnection with the Earth. This will be the key theme of the following chapter.

## Chapter 4 Collapsing Dualism: Ecological Self-Realisation

*Those of us from the master culture who lack imagination can gain new ideas from a study, undertaken in humility and sympathy, of the sustaining stories of the cultures we have cast as outside reason. If we are to survive into a liveable future, we must take into our own hands the power to create, restore and explore different stories, with new main characters, better plots, and at least the possibility of some happy endings.* Val Plumwood (1993, p. 196)

*The master's tools will never dismantle the master's house.*  
Audre Lorde, 1981, quoted in Bleier (1984, p. 193)

This thesis has argued thus far against the Western preoccupation with rationalism and the subsequent impact of the dualistic paradigm on our cultural perception of psychoactive plant use. More than this, the dualistic paradigm has created ...*a monumental forgetting of our human inheritance in a more-than-human world* (Abram, 1996, p. 260). The last chapter provided a case study of a hallucinogenic concoction with great potential benefit to Western culture. Here I expand on the suggestion in Chapter 3 that ayahuasca may have important contributions to make towards the Western perception of nature.

In her background paper for the *Western Australian State Sustainability Strategy* (2002), Patsy Hallen calls on us to develop an *ethics of care which respects nonhumans as ethical subjects and fosters inter-species dialogue* (Hallen, 2002). In this chapter I look at one avenue for creating such communication. I suggest that in order to do as Hallen urges, and to generate

sustainable societies, we must develop an ecological sense of self and recognise the interconnectedness of ourselves with the more-than-human world. Drawing on the work of key ecophilosophers, I explore the importance of reconnecting with the broader ecological community, and of literally coming to our senses. I then propose that plant teacher medicine such as ayahuasca, guided by the knowledge of the shamanic traditions, could have a role in facilitating the dissolution of the dualistic paradigm that separates we Westerners from the world, initiating an awareness of our deeply embedded interconnectedness.

### **Conservation to Ecological Self-Realisation**

Much of the environmental movement's focus over the past 40 years since the publication of *Silent Spring* (Carson, 2002) has focused on the idea of wilderness conservation. For sustainability, what is important is not *conservation*, as in "saving" and "protecting" "wilderness", but the development of a relational understanding, an integrated, interconnected response to the more-than-human world. The idea of wilderness, a contentious term (Taylor, 2006), is *highly insensitive to the claims of indigenous peoples and denies their record as ecological agent who have left their mark upon the land* (Plumwood, 2002, p. 17). Likewise, Davison notes, *it is significant that much radical ecophilosophy draws its main therapeutic inspiration from notions and places of wild or pristine nature... [disregarding] ...the ecological possibilities of more overtly social environments* (Davison, 2001, pp. 88-89). "Ecological agents" and "ecological possibilities" is exactly the point: we need to acknowledge that we humans are, and have always been, with our technology and science, nuclear waste and oil

spills, *part of the earth*, not separate from it. We are members of the ecological community no less than moaning frogs and phascogales, and as such need to claim responsibility for our membership and learn to better communicate with ecological Others. This need is the realisation of an ecological sense of self, for relationships and reciprocity within our ecological family from which we pretend we are not a part. A truly sustainable society rests on the interconnected web of human – human and human – more-than-human relationships.

The term ecological self is attributed to Arne Naess, Norwegian philosopher and founder of the deep ecology movement (Naess, 1988). Naess argues that traditional notions of self-development and the maturation of the self (from ego to social to metaphysical self) ignore our relationship with places, such as our home, and with other humans and living beings. While mental health by itself is important, the way it is usually conceived in the West does not encompass our connections with the world around (and within) us, and the importance of this for our (multi-level) health.<sup>17</sup> As this is literally the foundation of our existence, it is essential for this relationship above all to be healthy, or a society ends up in a state of ecological imbalance. Thus, sustainability must be a psychological or spiritual state before it can be a technological, social, or economic state. To

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<sup>17</sup> For further information on the biophilia hypothesis see, for example Kahn, 1997; Roszak, Gomes, & Kanner, 1995.

have an *ecological* sense of self, then, is to identify with a broader ecology, wider and deeper than one's own narrow ego self.

The ecological self has been interpreted by Devall (1995) as the self we have when we expand its definitions to include the non-human 'other' beyond our narrow ego. This broadens our self definition to include other plants, animals and places, a bioregion, or perhaps, the whole planet (or beyond). Someone expressing their ecological self may answer the question "Who are you?" with "I am a forest being", rather than, say, "A carpenter" (Devall, 1995, p. 101). This deep ecological version of Singer's expanding circles of moral consideration (Singer, 1981) has been vigorously criticised by Plumwood (1993) and others (Sylvan, 1986) for the denial of difference stemming from what she sees as the patriarchal extension of the individual (human) ego to encompass all things (Palmer, 2003, p. 31; Plumwood, 1993, pp. 173-189).

This is not, however, Naess's intention for the ecological self. Rather, this is his expression of the dissolution of the perceived boundaries between the human and more-than-humans worlds. In the West we labour under the illusion that we, and everything else in the world, are discrete entities with clear self-boundaries that preclude excessive interaction. In reality *the boundaries of a living body are open and indeterminate; more like membranes than barriers, they define a surface of metamorphosis and exchange* (Abram, 1996, p. 46). As we breathe, we literally inhale part of the world, and exhale part of ourselves.



The very porousness of our being is even clearer when one considers bodies and objects at a subatomic level, where we see that our skin is not a shell separating us from the world, but a permeable surface much like that of a pool or the soil (Shepherd cited in Devall, 1995, p. 102). With no clear boundary between myself and the earth, as an ecological self I must assume that I and the earth share something in common, some semblance of sameness.

Naess makes reference to the Gandhian notion of self-realisation, and notes that a Western (mis)-interpretation of the phrase would be that of individualism (Naess, 1988, p. 25). While this accurately reflects the central tenet of *our* culture, this is not what Gandhi, or Naess mean by the term. When Naess writes about realising our ecological selves (or Self as the deep ecologists prefer), he is not advocating an expansion of the individual ego – *To identify self-realization (sic) with ego indicates a vast underestimation of the human self* (Naess, 1988, p. 26) – but rather an expansion of our awareness of that *beyond* our narrow ego selves. While this does lead us to a place of the Whole versus its Parts, it does not necessitate that relationship being hierarchical in the sense of the parts being sacrificed for the whole, as Plumwood suggests (Plumwood, 1993, p. 180). Focusing too much on the division between the whole and the parts is, I feel, a distraction. What our real focus should be is recognition of the *interconnectedness* of all the parts that make up a whole (everything in the universe makes the universe). Perhaps this is the reason why Naess has been reluctant to provide a definition of the ecological self. He states, elusively, that

the *ecological self of a person is that with which this person identifies* (1988, p. 22). Shifting the *burden of clarification from the term self to that of identification or more accurately, the process of identification* (Ibid.), Naess directs us to what is ultimately more important than quibbling over terms, that is, *how we are to live*, which must be the central question for sustainability.

I suspect, as does Anda (2001, p. 132), that the end philosophical and practical goals of Plumwood and Naess are not so dissimilar. Plumwood's own plea for an *exploration of the mutual self, the self which can take joy in the flourishing of others, which can acknowledge kinship but also feast on the other's resistance and grow strong on their difference* (1993, p. 196) echoes what I believe is the central precept of Naess's self-realisation. My own definition of an ecological self is a relational understanding of the world, as an awareness of the fundamental interconnectedness of all beings, which recognises difference, but also interdependence. In recognition of interdependence there is recognition that at a base level, we are all part of a holistic system, and as such, what affects one, ultimately affects the whole.

### **Returning to Our Senses**

While one might whole-heartedly agree with the idea of interconnection between all beings, it is a giant leap for a person from a Western cultural background, schooled in rational thought to be able to fully know what this means. This problem is the direct result of our own immersion in the dualistic paradigm that divides the spheres of reason and nature, creating discontinuity

between mind and body, human and more-than-human worlds (Plumwood 1993, p. 49). As Abram explains:

*We may acknowledge, intellectually, our body's reliance upon those plants and animals that we consume as nourishment, yet the civilized mind still feels itself somehow separate, autonomous, independent of the body and of bodily nature in general (Abram, 1996, p. 260).*

Knowing comes from experience, and our bodies are the pathway back to the experience of interconnectedness within the ecological community and reclaiming our place *in the world*, as opposed to the abstract realm of the intellect.

Abram (1996) and Weston (1994) both urge us to return to our senses, to reclaim our embodied, embedded place in ecology, and to both acknowledge and feel *that we ourselves are at stake with "nature," with the rest of the world: entwined, enveloped, submerged in it* (Weston, 1994, pp. 1-2). Both authors cite examples of the dissolution of the perceptual boundary that splits the Western human from the rest of her ecological community. Abram beautifully discusses his experiences of immersion in rural Asian societies, his thrill upon discovering his awareness of other beings' self-awareness, and his subsequent engagement with them on their own terms:

*I stepped out from a clutch of trees and found myself looking into the face of one of the rare and beautiful bison that exist only on that island. Our eyes locked. When it snorted, I snorted back;*

*when it shifted its shoulders, I shifted my stance; when I tossed my head it tossed its head in reply. I found myself caught in a nonverbal conversation with this Other, a gestural duet with which my conscious awareness had very little to do. It was as if my body in its actions was suddenly being motivated by a wisdom older than my thinking mind, as though it was held and moved by a logos, deeper than words, spoken by the Other's body, the trees, and the stony ground on which we stood (Abram, 1996, p. 21).*

Weston tells a similar tale of when Hurricane Gloria cut off the electricity supply to his neighbourhood for a week. With food spoiling in the freezers, and no televisions, the people of his community gathered together like never before, and for a week *dined on lobster and moonlight* (Weston 1994, p. 113). Far from being a tragedy, the power cut reconnected his neighbours to each other, the starry skies and the sounds of a momentarily technology free world.

*Without electricity and with nowhere else to go, people would just sit for hours in someone's backyard and watch the full moon rise (Weston 1994, p. 113).*

Both authors, while celebrating the relative ease with which they left the confines of the Western paradigm to reclaim a lived experience of immersion in the sensuous world, admit that this was easily lost upon returning to the routine of civilised life (Abram 1996, p. 25), and switching back on the lights (Weston 1994, p. 114). This suggests that while it is possible for us to re-establish an awareness of ecological interconnectedness, and relationships with the broader ecological community – hence realising our ecological selves – we need to acquire the skills for making this awareness last.

## **Listening to the Elders: Shamanism and the Ecological Self**

As I have discussed previously, shamanism is the process by which practitioners skilled in the arts of altered states of consciousness mediate between the realms of the known and unknown, civilised and wild. To return to Abram's stories of Balinese shamans, *the medicine person's primary allegiance ... is not to the human community, but to the earthly web of relations in which that community is embedded* (Abram, 1996, p. 8). This is in essence the dissolution of dualism, and a reconnection of humanity to the broader ecological community; in other words, ecological self-realisation. Often missing from ecophilosophy is discussion of how we can better include the input of people from indigenous cultures and learn from their far greater success at creating sustainable societies. I suggest, like Plumwood, that as members of a rational-minded society on the brink of ecological collapse, we look towards those *cultures we have cast as outside reason* (Plumwood, 1993, p. 196) for guidance. In the following section I provide two examples of new directions for the shamanic facilitation of the ecological self.

Ken Tupper (2003) suggests a radical revision of Western society's current educative paradigm:

*...the development of the imaginative capacity to ponder one's place in the cosmos, of sensibilities of wonder and awe, and of mind-body awareness seem to receive comparatively*

*short shrift in the present educational environment, where test scores and instrumental thinking still tend to preoccupy administrators, teachers and student (Tupper, 2003, p. 145).*

Tupper wishes for a broader scope for education, to include spiritual components reminiscent of indigenous cultures (p. 147). As an alternative to the present mode of education, he contemplates the possibility of using hallucinogenic compounds, such as DMT<sup>18</sup> or mescaline, as educative tools. His choice of the hallucinogens for this work is due to their historical, ritual use for the purposes of healing and mediation of cosmological insight (p. 146), insisting that the *ritual component of entheogen use in established practices should be considered integral to beneficial outcomes* (Tupper, 2003, p. 151). Tupper asserts that the mindful, carefully managed use of hallucinogens could have beneficial outcomes for the education of our young people. This is similar to the set and setting requirement for positive psychotherapeutical results from use of ayahuasca, as outlined in the previous chapter. Tupper suggests a model for use of hallucinogens for educative means could be the youth survival course Outward Bound, which involves *taking small groups of people with experienced guides into a natural setting for activities that promote group bonding and personal transformation* (Tupper 2003, p. 156). He suggests that after adequate preparation (perhaps over years), a journey such as this could provide the zenith of the experience, and that an *apt name for this modified program might be "Inward Bound"* (Tupper, 2003, p. 156).

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<sup>18</sup> Dimethyltryptamine

A second example of the integration of shamanistic techniques into Western culture is provided by Tramacchi (2000), who gives a colourful account of the Australian “doof”, a celebration of psychedelic culture in the form of a dance festival held in the forest. *Doof* (referencing the beat of the music) is a contemporary utilisation of dance and music, often in combination with hallucinogenic substances, to create altered states of consciousness and an experience of unity, mirroring traditional shamanistic techniques for achieving the same end. Doofs have been heavily influenced by tribal culture and Neo-Pagan spirituality, with inspiration from indigenous cultures of the Americas that incorporate the use of hallucinogenic plants. The popularity of the Amazonian shaman cultures in particular results largely from the dissemination of Terrence McKenna’s writings of his psychedelic adventures in Latin America, and encouragement of consciousness exploration via the use of tryptamine hallucinogens such as psilocybin and DMT. Rather than a focus on psychoactive use, however, doof culture is focussed more on the possibilities of integration of the self into a broader whole through the trance-like influence of the dance-music-community combination (Tramacchi, 2000).

## **Summary**

This chapter has explored the concept of the ecological self, suggesting this to be the product of the dissolution of the dualistic paradigm that is the root of the contemporary ecological crisis, both separating us from the ecological community, and placing human interests over all others. I suggested while it is

necessary and indeed possible for us to access our ecological selves via a return to our senses, in our sense-deprived culture we do not have the skills necessary to sustain an awareness of our relational embeddedness in the world.

Finally, I proposed that in order to facilitate ecological self awareness, we turn to the sustaining, shamanistic traditions of indigenous cultures. The examples of the potential for integration of shamanism into Western culture give a sense of possible new directions our society could take to reach a place balance with the more-than-human world.

I return now to the Blake (1975, p. xxii) quote with which I began this thesis:

*If the doors of perception were cleansed, every thing would appear to man as it is, Infinite.*

*For man has closed himself up, till he sees all things thro' narrow chinks of his cavern.*

This is the task ahead of us: to re-establish methods for cleansing the doors of perception, so that we may again see ourselves as part of the interconnected web of life that is the Earth. It is time for Western society to stop scowling in the corner, jealously watching the exuberant awesome diversity and creativity of the myriad cultures and creatures on the other side of the dualistic chasm, and bridge the gap between worlds, reclaiming and reaffirming its ecological nature.



## Chapter 5 Conclusion

*To see a World in a Grain of Sand*

*And a Heaven in a Wild Flower,*

*Hold Infinity in the palm of your hand*

*And Eternity in an hour.*

William Blake, *Auguries of Innocence* (2003, p. 144)

The culture in the West remains strongly opposed to the use of psychoactive plant (and synthetic) substances that take us too far away from the sphere of the rational. After centuries of persecution, people using psychoactive plants today remain the target of the dominant, rationalist paradigm's illogical subjugation. It has been the goal of this thesis to illuminate and unravel some of the philosophical underpinnings of this intolerance and provide some alternatives to the dominant view.

I have argued in this thesis that the contemporary prohibition of certain psychoactive substances under the moniker "War on Drugs" is deeply embedded in the culturally pervasive construction of the dualistic paradigm. I theorised that the foundational dualism of Western culture is the hedgerow that characterised early European settlements, and that those with knowledge of magical and medicinal plants were persecuted because of their literal and metaphysical association with the wild, chaotic world beyond the hedgerow. My

exploration of the philosophies of the domination and mechanisation of nature that characterised the Enlightenment and the modern paradigm then connected the persecution suffered by witches and that of contemporary psychoactive plant users.

After explaining the “War on Drugs” standard of Western culture, I offered a case study of the powerful hallucinogenic tea of the Amazon, ayahuasca. My account of the traditional and contemporary uses of ayahuasca showed that the rational paradigm’s perception of psychoactive plant use as primitive and irrational is illegitimate, and that even on the grounds of rational thought, hallucinogenic plants can be safe to use and can also have profound psychotherapeutic and spiritual benefits.

Lastly, I placed the previous discussion in the context of sustainability. I suggested that an important step towards sustainability was the development of an ecological sense of self, in order to recognise the profound interconnectedness of the human and more-than-human worlds. I then proposed that a radical and potentially successful way to facilitate this could be through the use of using hallucinogenic plant medicines such as ayahuasca, under the guidance of shamanic traditions.

The approach taken in this thesis has been unashamedly exploratory. The thesis is an early attempt at reconciling the pervasive and damaging structures of the

Western mindset with the unjust and ongoing persecution of psychoactive plant use. This thesis has not sought to provide a comprehensive critique of current drug policy, nor to explore all avenues for consciousness awakening and the facilitation of ecological self realisation. Rather, I have chosen to focus my discussion on illuminating the basis of the contemporary status psychoactive plant use holds, while presenting the case for the reevaluation of its legitimacy in Western culture.

Every day, more species, cultures and ecosystems are pushed closer to the brink of destruction by the dualistic paradigm's denial of the fundamental interconnectedness of all beings. It is time to heal the fractured self of Western culture, and champion the integration of Western, shamanic, and other practices for producing altered states of consciousness that can reconnect us with the ecological community. Ayahuasca and its fellow plant teachers have wound their way out of the jungles and wild corners of the world, to find new friends and allies in the West. This is cause for great hope. As more people become aware of the powerful lessons to be given by these ancient sacred medicines, the more chance we Westerners have of halting our destructive behaviour and re-establishing our relationship with the Earth. The lessons are there to be given, if we are only willing to listen.

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