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Communicating the Unspeakable: Linguistic Phenomena in the Psychedelic Sphere

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D. J. A. RAY

PH.D.

3 Author's Declaration

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award without prior agreement of the Graduate Committee.

This study was self-financed.

Relevant scientific seminars and conferences were regularly attended at which work was often presented; several papers were prepared for publication. These are listed in Appendix IV.

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Signed *Diana R Slattery*
Date *15 August 2011*

**COMMUNICATING THE UNSPEAKABLE:
LINGUISTIC PHENOMENA IN THE PSYCHEDELIC SPHERE**

by

DIANA REED SLATTERY

A thesis submitted to the University of Plymouth
in partial fulfillment for the degree of

DOCTOR OF PHILOSOPHY

Planetary Collegium
Faculty of Arts

AUGUST 2010

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Abstract

Psychedelics can enable a broad and paradoxical spectrum of linguistic phenomena from the unspeakability of mystical experience to the eloquence of the songs of the shaman or *curandera*. Interior dialogues with the Other, whether framed as the voice of the Logos, an alien download, or communion with ancestors and spirits, are relatively common. Sentient visual languages are encountered, their forms unrelated to the representation of speech in natural language writing systems. This thesis constructs a theoretical model of linguistic phenomena encountered in the psychedelic sphere for the field of altered states of consciousness research (ASCR). The model is developed from a neurophenomenological perspective, especially the work of Francisco Varela, and Michael Winkelman's work in shamanistic ASC, which in turn builds on the biogenetic structuralism of Charles Laughlin, John McManus, and Eugene d'Aquili. Neurophenomenology relates the physical and functional organization of the brain to the subjective reports of lived experience in altered states as mutually informative, without reducing consciousness to one or the other. Consciousness is seen as a dynamic multistate process of the recursive interaction of biology and culture, thereby navigating the traditional dichotomies of objective/subjective, body/mind, and inner/outer realities that problematically characterize much of the discourse in consciousness studies. The theoretical work of Renaissance scholar Stephen Farmer on the evolution of syncretic and correlative systems and their relation to neurobiological structures provides a further framework for the exegesis of the descriptions of linguistic phenomena in first-person texts of long-term psychedelic self-exploration. Since the classification of most psychedelics as Schedule I drugs, legal research came to a halt; self-experimentation as research did not. Scientists such as Timothy Leary and John Lilly became outlaw scientists, a social aspect of the "unspeakability" of these experiences. Academic ASCR has largely side-stepped examination of the extensive literature of psychedelic self-exploration. This thesis examines aspects of both form and content from these works, focusing on those that treat linguistic phenomena, and asking what these linguistic experiences can tell us about how the psychedelic landscape is constructed, how it can be navigated, interpreted, and communicated within its own experiential field, and communicated about to make the data accessible to inter-subjective comparison and validation. The methodological core of this practice-based research is a technoetic practice as defined by artist and theoretician Roy Ascott: the exploration of consciousness through interactive, artistic, and psychoactive technologies. The iterative process of psychedelic self-exploration and creation of interactive software defines my own technoetic practice is the means by which I examine my states of consciousness employing the multidimensional visual language Glide.

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Signed

Date

1 Introduction

I approach these pages with a peculiar sense of urgency as a man might who had confronted an unexplainable phenomenon as some impossible creation of dreams or unaccountable natural principle. The task facing such a man would be a very subtle one; that is, to describe the phenomenon as accurately as possible. My task is compounded by the fact that the phenomenon I must try to describe has itself to do with the very tools of description; i.e. language.....These may be the last characters of a crude language that I will ever apply to the description of anything; since the phenomenon begins at the edge of language, where the concept forming faculty gropes but finds no words, I must be careful to avoid not distinguishing between mere language-symbol-metaphor and the reality I am attempting to apply it to.

-Dennis McKenna (McKenna and McKenna 1993)

I will speak first about the unspeakable, because the possibility of its communication is the task of this thesis, and because the unspeakable has many dimensions, each of which will find its place below.

3.1 The Research Climate

The psychedelic sphere itself, as William James expressed, is close at hand, "parted from us by the filmiest of screens" (James 2002). These worlds can easily be explored by performing some version of the basic self-experiment: 1) adjust the chemistry of consciousness by introducing a psychedelic substance; 2) observe the changes in consciousness; 3) report; 4) interpret. The discourse on psychedelics, reported from lived experience that tries to describe and interpret the radical shifts in levels of perception and reality is not nearly as straightforward, made problematic in part by the social dimension of unspeakability. The illegalization of LSD in 1966 effectively ended funded research for almost 40 years.¹ The

¹ There is a current thaw in the research climate, including significant new initiatives worldwide to study psychedelics. The Multidisciplinary Association for Psychedelic Studies MAPS. (2009). "R & D Medicines: Psychedelic Research Around the World." Retrieved 12/7/09, 2009, from <http://www.maps.org/research>. is currently MAPS. (2009). "R & D Medicines: Psychedelic Research Around the World." Retrieved 12/7/09, 2009, from <http://www.maps.org/research>. sponsoring 10 MDMA studies in the US, Switzerland, Israel, Canada, Jordan, and Spain. Nine of the studies worldwide are on the

subsequent scheduling of most psychedelic substances, whether occurring in natural form or synthesized in the laboratory, has channeled a portion of legal psychedelic science into anthropological and ethnobotanical investigations in countries such as Peru and Brazil where sacramental use of ayahuasca is sanctioned. Research in areas which involve the human consumption of psychedelics such as the psychotherapeutic use of MDMA, psilocybin, and LSD; studies of the creative potential of psychedelics for art and problem-solving; and every kind of self-experimentation went underground. Resistance movements practice their own unspeaking: discretion, anonymity, coded language, fictional strategies, *omertà*. The 40 Year War on Drugs has had what is called in constitutional law a chilling effect on communication about these drug experiences. To cast them in a positive, or even "less harmful" light is to risk consequences in primary social institutions: education, government, religion, and medicine.

This background of clear and present danger to those who report openly on their psychedelic experiences, or offer opinions contrary to wartime policy, the political underbelly of all psychedelic research, affects not only the social standing of the reporter, but the nature of the reports themselves, through self-censorship (the chilling effect). Drug/dosage, set and setting are the three primary variables of the psychedelic experience (Smith 2000). The effects of the psychedelic "closet" as an aspect of setting, and the illegality of the act as a part of set colors both the experience and its reportage. A speaking out becomes a coming out. The literature

treatment of post-traumatic stress disorder (PTSD); one study deals with MDMA-Assisted Psychotherapy in the Treatment of Anxiety Secondary to Advanced Stage Cancer. Additionally, MAPS is sponsoring "the first study in the therapeutic use of LSD in humans in over 35 years" in Switzerland. MAPS. (2009). "R & D Medicines: Psychedelic Research Around the World." Retrieved 12/7/09, 2009, from <http://www.maps.org/research>.

of intensive and long-term psychedelic self-exploration exists outside the academy. However else the authors may be categorized: as combatant, conscientious objector, agent provocateur, or collateral damage, they are war correspondents, reporting from the battlefield of the 40 Year War on Drugs. This socio-political history, while outside the scope of the thesis, is the context in which it developed, and represents one dimension of the unspeakability of the psychedelic experience (Leary 1990; Lee 1992; Black 1998; McVay 2004). Even William James' self-experiments, long before the War on Drugs, were viewed with suspicion by his peers (Nicotra 2009).

1.1.1 The Academic Discourse on Consciousness

A second zone of the unspeakable exists in the academic discourse on consciousness. Once outside the disciplinary havens of chemistry, pharmacology, and neurophysiology, "the taboo of subjectivity" (Wallace 2000) has made the study of consciousness itself problematic. Unless one denies the existence of consciousness itself, defining it out of existence (the material reduction), one must in some way come to terms with the lived experience of the individual subject and its communication in the study of consciousness. This muffling of the subjective statement, and the mistrust of "introspectionism" as a source of useful knowledge in scientific and many philosophical approaches to the study of consciousness, creates its own problematic gap, discussed in Chapter 2, "Description of Field and Literature."²

² There are currently no colleges or universities that offer a major in Psychedelic Studies much less a department of Psychedelic Science; in fact, Thomas Roberts, Professor Emeritus of Educational Psychology at Northern Illinois University, for 30 years has taught the only steadily offered course in the topic, Foundations of Psychedelic Studies. (Roberts, T. B. (2006). *Psychedelic Horizons*. Exeter, Imprint Academic. Roberts stands out as a lone academic voice, speaking out without dropping out, defining a field into existence. In his 2006 book, *Psychedelic Horizons*, he laments "the chilling effect" thus: "...when I give papers on psychedelics at professional meetings, afterwards there typically

1.1.2 The Unspeakability of Anomalous Experience

A third form of unspeakability arises in the communication of the often bizarre and difficult to assimilate—for the speaker as well as any imagined listeners—content of the psychedelic experience. As the quip goes, “If you talk to God, it’s called prayer. If God talks to you, that’s called schizophrenia.” From Terence McKenna’s self-transforming machine elves (McKenna 1992), John Lilly’s E.C.C.O. (Earth Coincidence Control Office) exchanges (Lilly and Lilly 1977b), and the giant fluorescent snakes of the ayahuasca experience (Narby 1999), the shock and awe these experiences can engender map in our monophasic culture³ to the symptoms of psychopathology. Examining the medical term “hallucination” with its pejorative bias will be discussed in Chapter 5, “The Psychedelic Landscape.” The psychonaut must first convince herself that she is not crazy; only then comes the task of communicating *without elision* to others the often bizarre details of a

are one or two people who confide in me about their interests in this field. Similarly, from time to time new professors from various departments drop by my office and admire my 60s rock posters. In a sentence or two we are talking about our mutual interest in the academic possibilities that psychedelic offer. But due to the censorship or self-censorship, these young colleagues feel they can’t discuss this aspect of their professional interests. Colleges and universities are supposed to encourage the exploration of ideas wherever they lead, but these young faculty members are afraid to discuss what for many of them are their most challenging and intellectually intriguing experiences. This is a terrible situation to exist in an institution one of whose main principles is supposed to be open-mindedness and freedom of academic inquiry.”

³ “The important point is that in any society a finite set of possible phases of consciousness is declared normal. Members of that society are socialized to recognize the appropriate attributes of these phases and to consider them definitive of their own and of other’s mindstates.” Laughlin contrasts our contemporary Western monophasic culture to polyphasic cultures that incorporate multiple phases of consciousness, such as indigenous cultures with intact shamanic traditions and their associated ritual practices. Laughlin, C. D., John McManus, Eugene G. d’Aquili (1990). Brain, Symbol, & Experience: Toward a Neurophenomenology of Human Consciousness. Boston, Shambhala.

psychedelic experience.⁴ The integrity of the phenomenological report, and hence the research data, is at stake.

The forms of some of the psychedelic languages discussed are, quite literally, “unspeakable”: visual, gestural, self-referential, languages with no formal connection to natural language: “It is a language, but not made of words—a language which becomes and which is the things it describes” (McKenna 1993). These phenomena may be associated with sound that is not words (Goodman 1972) or be explicitly soundless, like Glide.⁵ This is no trivial unspeakability, for the speakable begins and defines our baseline form of language, “natural” language. An unspeakable language, from the viewpoint of natural language, is perhaps no language at all. Even our most abstract symbol systems, such as mathematical formulae, can be spoken. An expansion of the concept of language to include these phenomena is undertaken in Chapter 7, “Xenolinguistics.”

1.1.3 The Ineffability Standard

“Well beyond the reach of its fragrance, I try to remember and say this longing.”—
Bahauddin, Rumi’s father (Barks 2004)

Peeling back the social and interactional layers of unspeakability allows a less distracted approach to unspeakability at the level of the subjective event itself. Ineffability is asserted as a hallmark of the experience, as William James noted for mystical states (James 2002). Natural language is used to display its helplessness to communicate the fullness, extremity, and impact of the experiences. Cognitive psychologist Benny Shanon’s statement, made as both a first-person experiencer

⁴ I have treated the theme of ‘keeping quiet so no one thinks you’re crazy’ as well as other forms of unspeakability at greater length in a recent article. Slattery, D. R. (2009). “Psychedelics: My Problem Discourse.” *Configurations: A Journal of Literature, Science, and Technology* 16(2): 283--296 .

⁵ Glide is the author’s symbolic system from the psychedelic sphere, discussed in detail in Chapter 7, “Xenolinguistics.”

and on behalf of the first-person accounts he has collected and analyzed in his exhaustive phenomenology of the ayahuasca experience, is typical.

I am saying all this by way of apology, for in a deep sense the effects to be discussed here defy verbal description. In order to be fully appreciated they have to be experienced firsthand. Yet, in order to give the non-initiated reader some taste of what will be talked about here, I shall try to do what I have just said cannot be done, namely, I shall resort to description by means of words... (Shanon 2002).

The literature of the altered states of consciousness (Arthur) of mystical experience abounds with such apophatic disclaimers.⁶ Teresa of Avila on the unspeakable:

I wish I could describe, in some measure, the smallest portion of what I saw; but when I think of doing it, I find it impossible; for the mere difference alone between the light we have here below, and that which is seen in a vision,—both being light,—is so great, that there is no comparison between them; the brightness of the sun itself seems to be something exceedingly loathsome. In a word, the imagination, however strong it may be, can neither conceive nor picture to itself this light, nor any one of the things which our Lord showed me in a joy so supreme that it cannot be described; for then all the senses exult so deeply and so sweetly that no description is possible; and so it is better to say nothing more (Teresa 1988).

Michael Sells, in his study *Mystical Languages of Unsayings*, explicates the apophatic discourse of a group of mystical writers from Marguerite Porete to Ibn Arabi (Sells 1994). He asks, "How are we to approach critically a discourse that claims to speak from the point where subject and object, self and other, are one? Simply put, does one have to be a mystic to understand the transreferential language of mystical unsaying?" I return to this question in Chapter 4, "Contact With The Other: Knowledge Acquisition in the Psychedelic Sphere," where matters of the self and the Other are thrown into high relief.

Sells' question can be asked equally of the psychedelic discourse, which includes, but is hardly limited to, the mystical experience. From the early (pre-

⁶ Apophasis is the rhetorical device where one pretends to deny what is really affirmed Lanham, R. A. (1991). *A Handlist of Rhetorical Terms*. Berkeley, University of California Press.. In mystical texts, this can take the form of statements relating to the belief that God can be known to humans only in terms of what He is not (such as 'God is unknowable.'). The Jewish tradition of the unspeakability of the name of G_d, about which much has, of course, been spoken, is a broad example.

criminalization) days of psychedelic research, the question has been raised of the authenticity of a mystical experience catalyzed by a drug as opposed to those experiences that occur spontaneously, or as the result of culturally sanctioned spiritual practices such as forms of meditation or prayer. The famous Good Friday experiment conducted by Walter Pahnke at Harvard Divinity School under Timothy Leary and Richard Alpert's supervision as part of the Harvard Psilocybin Project (Pahnke 1966) confirmed the genuineness of these experiences for the majority of the participants, a finding re-affirmed by Rick Doblin's long-term follow-up interviews of the Good Friday participants, 25 years later. "The experimental subjects unanimously described their Good Friday psilocybin experience as having had elements of a genuinely mystical nature and characterized it as one of the high points of their spiritual life" (Doblin 1991). In 2006, Roland Griffiths performed a similar but methodologically more rigorous experiment at Johns Hopkins, with similar findings⁷ (Griffiths 2008). Huston Smith sums up his own examination of the Pahnke experiment, and his rebuttal of Zaehner's position (Zaehner 1961), making an essential distinction between ontology and phenomenology in considering the question of the difference between the chemical and the natural mystical experience when he concludes, "the empirical evidence cited does not preclude the possibility of a genuine ontological or theological difference between natural and drug-induced religious experiences. At this point, however, we are considering phenomenology rather than ontology, description rather than truth-claims, and on this level there is no difference. Descriptively, drug experiences cannot be distinguished from their

⁷ A talk by Griffiths about the research can be found at <http://tedxmidatlantic.com/live/#RolandGriffiths>.

natural religious counterparts" (Smith 2000). This distinction between ontological claims and phenomenological description is essential to this thesis.

Beyond the ineffability barrier, come reports of a wide variety of linguistic phenomena: natural language attaining heights of eloquence, ecstatic significations (Munn 1973); distortions and rendings (Krippner 1970); synaesthesias; and beyond the veil of natural language, reports of emergent types, uses, and qualities of language, as well as mythopoetic accounts of the origins and evolution of language (McKenna, 1992a #1); interspecies communication, (Lilly 1972; Narby 2005); and descriptions of ontological systems envisioning the structure of reality as fundamentally linguistic (Abraham 1992; Pesce 2002).

1.1.4 The Unspeakably Aw(e)ful

Terror plays no small part in the psychedelic experience, and the hell realms exist as Albert Hofmann experienced on the first deliberate self-exploration with LSD: "Supplement of 4/21: Home by bicycle. From 18:00- ca. 20:00 most severe crisis." Hellish distortions morphed to the heavenly by the end of his trip.

Since my self-experiment had revealed LSD in its terrifying, demonic aspect, the last thing I could have expected was that this substance could ever find application as anything approaching a pleasure drug. I failed, moreover, to recognize the meaningful connection between LSD inebriation and spontaneous visionary experience until much later, after further experiments, which were carried out with far lower doses and under different conditions (Hofmann 1983).

Huxley's heaven and hell (Huxley 1974) stand in contrapuntal relation to each other, each invoking the other, maintaining some cosmic balance between the music of the spheres and the silence of the suicide. The aesthetic of the sublime, where horror and awe co-exist viscerally⁸ in an excessive and overwhelming manner, is a reference point for description of the range of emotional registers that

⁸ Diane Gromala's work on the visceral response is helpful here. Gromala, D. J. (2006). *Toward a Phenomenological Theory of the Visceral in the Interactive Arts*. School of Computing. Plymouth, University of Plymouth. Ph.D.: 79.

can simultaneously or sequentially or chaotically co-exist in the psychedelic experience. But let it be said that the unspeakably funny can puncture the gravitas of the sublime with the anti-gravitas of the cosmic giggle at any moment in the space-time of a single trip. Too-much-ness, the “road to excess” of heaven, hell, or hilarity is also a hallmark. The navigation of excess, of learning to ride that which is far too big to fight, a skill related to surfing Hawaiian Blue Glass—or riding several kilometers on a bicycle coming up on 250 mics of pure Sandoz acid you made yourself. As in surfing the big waves, one learns to carve and cutback; to wipe out and survive.

1.1.5 Secrecy

Psychedelic self-exploration in the present is accomplished largely in secret, by individuals, or in small groups, in acts of civil disobedience. This secrecy is a distillation of aspects of the unspeakable: illegality; social consequences; ineffability. When *omertà* is essential policy (Sand 2001), communicating about the unspeakable requires what the Buddhists call *upaya*: *method as skillful means*. Finally, there is the secrecy of initiation.

In my initiations, I’ve had things communicated to me that are unspeakable for reasons of secrecy, and I respect traditions. There is something fairly paradoxical about this as many “secrets” can be found in esoteric bookstores: and others can’t be found there, on the other hand, and remain unspeakable (Narby 2008).

1.1.6 Pragmatic Approach to Definitions of Language

My aim is not to arrive at a single defining statement of what language *is*, (though such statements will come into play) but how it has been experienced in the psychedelic sphere, including the interpretations of the xenolinguists. These definitions, as well as the various disciplines within which language is studied, are useful *or not* in a purely pragmatic sense. Can they help in the description of psychedelic linguistic phenomena? Does the particular idea of language make

sense both from a baseline viewpoint⁹ and from the psychedelic sphere, or is it too constrained to natural language to address these highly novel forms? The term “linguistic phenomena” has been chosen to indicate, in part, the fragmentary nature of these reports. A fleeting DMT trip may catalyze powerful, even unforgettable visions of new forms of language, and the aftermath of the vision produce a flood of interpretation, but these suggestive fragments are for the most part not developed into anything resembling a full system of structurally related, rule-bound symbols (Crow 2004) whose meanings (David and Cutting 1993) can be studied. One could compare this effort to the attempts to decipher the Phaistos disc (Godart 1995) or the Voynich manuscript (D’Imperio 1976), with the significant difference that the originators of the reports are known and have offered their own interpretations, a luxury not afforded by the historical mysteries above. Which places us squarely before a key point: these are individual visions, private revelations made public. If language is viewed as the activity of a community of users, then “private language” is an oxymoron. The questions become: under what conditions are these phenomena experienced, *who* is using the language to communicate with *whom*, and in what fields of meaning are these languages deployed? The search for answers involves an exploration of the radical shifts in the construction of the self, the Self, and the multiplicity of selves encountered—and encountering—in the psychedelic sphere. From the context of psychedelic experience, a xenolinguistic notion of languages that are inter-dimensional, novel to the point of alien, and evolutionary, emerges. The explication itself calls for new language:

⁹ The idea of a baseline or ground-state of consciousness, or “normal waking consciousness” is used in psychedelic studies to refer to the default configuration of our neurochemistry, producing what we call ordinary reality.

Our language is a matter of habit—low dimensional construct. There's a problem developing a language that is suitable to it, a task of building new dictionaries and new language and bootstrapping ourselves by transforming our language so that finally it maps onto the thing beheld in the psychedelic state. We need to create a meta-linguistic, meta-mathematical, meta-metaphorical language" (McKenna 1983)

1.2 Research Question

These novel linguistic phenomena are the topic of this thesis, about which the central question is asked: what can these linguistic experiences tell us about how the psychedelic sphere can be approached, navigated, interpreted, communicated *within* its own domain, and communicated *about* between states of consciousness? Further, what light can be shed on the differences in perception and reality between the default settings in which daily life is experienced and science practiced, and the psychedelic realms, by an examination of these language phenomena? The form of these questions is inspired by Thomas Roberts' multistate question, a very general formulation: "How does/ do _____ vary from mindbody state to mindbody state (Roberts 2006). The multistate question arises within what Roberts calls the multistate paradigm, derived from Charles Tart's model of discrete ASC (1972; Tart 1980). Roland Fischer's work, from his 1971 "*Cartography of the Ecstatic and Meditative States*" on, uses a multistate paradigm (Fischer 1971). Consciousness is modeled as existing in multiple mindbody states or levels. This model of consciousness as a series of levels or states is as ancient as Vedanta and Buddhist practices, and found in medical and psychological models as well. While each of these philosophies, psychospiritual practices, and academic disciplines has their own taxonomies of what these levels consist of, and their own means of attaining, studying, and manipulating these levels, the model of consciousness as multistate and leveled is frequently employed.

Chapter 5, "The Psychedelic Landscape," situates the central topic of linguistic phenomena in an explication of the relationship of four topics which arise in

discussion of the psychedelic experience: reality, hallucination, perception, and dimensionality.

1.2.1 Neurobiological Models

Chapter 6, "Neurophenomenological Perspectives on Language," treats our developing understanding of what is happening in the bodymind: physiologically, chemically, metabolically, electrically, in ASC. The search for the neuronal conscious correlates of the ASC must of necessity fill in information from both the neuronal events and the concurrent mindstates. For David Chalmers, even when a match can be made between subjective experience and neural event, these efforts never address the primary question of the nature of the correlation, i.e. "the hard problem": how does a neural event lead to conscious experience? He quotes Christof Koch on the limitations of this approach: "Well, let's first forget about the really difficult aspects, like subjective feelings, for they may not have a scientific solution. The subjective state of play, of pain, of pleasure, of seeing blue, of smelling a rose—there seems to be a huge jump between the materialistic level, of explaining molecules and neurons, and the subjective level. Let's focus on things that are easier to study—like visual awareness" (Chalmers 1996). If the neuronal correlate of the experience of "blue" is difficult, how then do we approach the complex narratives of a journey through a psychedelic landscape, a realized, experienced, unique world with its own dimensionality, architecture, flora, fauna, colors, emotions, its own inhabitants, and one's interactions with these denizens? The instrumentation of neuroscience—fMRI, EEG, PET—can give a momentary snapshot of a brain event; there is no instrumentation as yet that can meaningfully track the complex and dynamic process of subjective experience in any mindstate.

On the subjective reporting end, what constitutes a useful report? Who qualifies as an authority? How can the rules of evidence, of rationality, logical argument,

non-contradiction, and scientific methods, and the rules of self-evidence, the noesis of immediate experience or intuitive thinking, mutually inform each other rather than mutually exclude each other as epistemological incompatibilities?

Laughlin, (1990) and Winkelman (2000) propose a neurophenomenological approach where biology and phenomenology are accorded separate but equal status, and acknowledged as not reducible one to the other. Further, each deals explicitly with the phenomena of ASC in mystical, shamanic, and psychedelic perspectives (often overlapping). Each works with a concept of the human bodymind that developmentally begins with certain givens—the neurognostic structures—that are then modified by their own development and interaction with each other and (in a cybernetic feedback situation) with the environments external and internal to the body. The formation of temporary or habitual networks among neurons and systems of neurons is termed entrainment. The evolutionary division of the human nervous system into a triune structure is utilized, especially in the context of Winkelman’s characterization of psychedelic action as psychointegrative, where the earlier and the later parts of the brain come “online” together, i.e. into conscious awareness.¹⁰ Winkelman sees this integrative aspect as a hallmark of the functions of psychedelic experience in healing, unitive experiences, and creativity. Particularly helpful to developing an understanding of linguistic phenomena in the psychedelic sphere is the central concept of the symbol, and “the central role of the symbolic process in neural organization and

¹⁰ From Laughlin, et. al., p. 70: “The various parts of the nervous system have not evolved at the same rate. Generally, the lower the structure resides in the functional hierarchy of the nervous system, the older is its organization. In order to make this point clearly, Paul McLean (1973, 1978) has divided the human nervous system into three evolutionary strata: the new mammalian (telencephalon or neocortical structures), the paleomammalian (rhinencephalon or limbic system), and the reptilian (including the upper spinal cord, portions of the mesencephalon or midbrain, the diencephalon, or thalamus-hypothalamus, and the basal ganglia.”

experience.” (Laughlin 1990). The symbol is seen as a detectable pattern that can penetrate to an underlying neurocognitive system “to match patterns in memory and patterns of sensory input.” Winkelman’s discussion of the construction of self and other in the shamanic experience is also helpful in my treatment of knowledge acquisition in the psychedelic sphere. Steve Farmer’s work on the neurobiology of correlative thought (Farmer, Henderson et al. 2000) is suggestive for understanding the correlative formations in the developed systems of thought produced by McKenna and Lilly from their psychedelic experience and reviewed in Chapter 7, “Xenolinguistics.”

1.3 The Appendices

A number of Appendices to the main body of the dissertation are included. The topics serve to support with detail the main arguments and are provided to assist the reader unfamiliar, either by study or personal encounter, with the varieties of psychedelic experience. The DVD includes video and animations that support the analysis of the Glide symbolic system as an example of linguistic phenomena in the psychedelic sphere and are referenced in Chapter 7, “Xenolinguistics.” They are presented primarily as instances of a developed psychonautic practice, and secondarily stand as examples of artistic practice; thus there is no attempt to place them in the lineage of psychedelic art qua art.

2 The Psychedelic Field and Its Literature

The field of psychedelic studies and its literature is not only multidisciplinary, studying psychedelics from within the disciplines of anthropology, biochemistry, psychopharmacology, consciousness studies, medicine, literature, cultural history, and the arts, but is bifurcated along the fault line of unspeakabilities created by the illegalization of virtually all psychedelic substances, as discussed above in Chapter 1, "Introduction." The literature, outlined below, is likewise divided between the academic and the non-academic or "popular" literature, along the same line.

2.1 A Divided Field

The study of psychedelics—their chemistry, use, effect on consciousness, and impact upon culture—was a rapidly expanding endeavor in the well-established and funded disciplines of medicine, pharmacology, and psychology, from the late 1940's until the social upheavals of the 60's precipitated a governmental backlash of magnitude. LSD had escaped the laboratories and infused youth culture in the US and the UK, associated with "question authority" hippies experimenting with alternative lifestyles, and supporting the anti-war movement of the Viet Nam era. Timothy Leary's high profile leadership of what could be seen as a children's crusade led Richard Nixon to characterize him as "the most dangerous man in America." The fault line formed between the mainstream culture and the counter-culture. With illegalization, international drug manufacturing and distribution networks of magnitude, such as The Brotherhood of Eternal Love, formed (Black 1998), creating an entirely new level of problems for prohibition policies of governments. The story is made considerably more complex by the fact that both the US and the British governments were carrying out secret experiments with LSD in the pre-illegalization period, in an attempt to develop a Cold War mind

control drug. LSD's broad spectrum of effects was thought to include its use as a truth serum for CIA secret interrogations. Senate hearings in 1978 led by Senator Ted Kennedy, chairman of the Senate Subcommittee on Health and Scientific Research, investigated the CIA's Operation MK-ULTRA, the program involving the development of chemical and biological agents. In Kennedy's words, he sought to "close the book on this chapter of the CIA's life" (Lee 1992).

These activities were considered so sensitive that only a handful of people within the CIA even knew about them. A previously classified document explained why the program was shrouded in secrecy: "The knowledge that the Agency is engaging in unethical and illicit activities would have serious repercussions in political and diplomatic circles and would be detrimental to the accomplishment of its mission" (Lee 1992).

Imprecations of drug abuse among hippies take on a new light when the activities of the imprecators are considered.

With the scheduling of psychedelic drugs, those involved in legitimate scientific research saw their legitimacy—and their funding—evaporate. The counterculture spawned the psychedelic underground, producing, distributing and experimenting with an ever-increasing number of illegally manufactured, imported, or cultivated psychedelic agents. Above-ground researchers, whose careers were thwarted, often narrate the events of the 60's with Dr. Timothy Leary in the role of the great spoiler, citing his outrageous behavior (including jail time, a prison break, his never-quelled advocacy of psychedelic use, and the discarding of his scientific role and voice) as the cause of their situation. Early researchers such as Dr. Charles Tart and Dr. Ralph Metzner steered their investigations into spiritual pursuits, investigating consciousness in legally sanctioned directions. Other researchers, such as Dr. John Lilly, with years of legitimate NIH funding for LSD research, just continued to research illegally, and publish their results in the popular press. Academic publication for any activities involving self-

experimentation with now-illegal drugs was curtailed. Leary and Lilly's research results, theories, and interpretations of the psychedelic experience are largely ignored in academic circles. The underground produced its own researchers; this thesis treats the work of Terence McKenna, a leading figure of the psychedelic underground, with close attention. The use of fictional strategies as a means of making public activities that are illegal became a strategy for authors Dale Pendell and Alexander and Ann Shulgin. The Shulgins occupy a unique position, straddling the over- and underground of psychedelic research. Their works PIKHAL (Shulgin and Shulgin 1991) and TIKHAL (Shulgin and Shulgin 1997) combine a fictionalized narrative of their researches, written by Ann Shulgin, with the scientific chemical data of the hundreds of psychoactive substances invented and tested by Alexander Shulgin. Alexander Shulgin maintained legal licenses for his chemical investigations, always staying one step ahead of the laws which scheduled his substances after they became known and went into manufacture and distribution in the underground, and providing reliable information to government agencies and underground alike. Ethnobotanist and poet Dale Pendell published his research in three volumes, with a disclaimer of fictionality framing the authorial voice (Pendell 1995; Pendell 2005; Pendell 2005). Dennis McKenna, brother of Terence McKenna, after his countercultural adventures in the 70's, went on to a Ph.D. in botanical sciences. He publishes in aboveground journals, and maintains ties to the counterculture.

The counterculture has its own uncharted, highly active fora, blogs, and publishing, which took a great leap forward with the rise of online communication and communities.

Above- and underground researchers identify themselves by dress codes and employment and publication options, but in fact, the separations often belong to

the public face of their activities, with much-unacknowledged crossover between the two. Organizations such as the Multidisciplinary Association of Psychedelic Studies (MAPS) has operated for 24 years, leading the effort to re-legitimize and fund cannabis, MDMA and LSD research.¹¹ As an organization, they, too, straddle over- and underground, following a medical model in their research interests and proposals, while selling art work from the underground to support this effort. MAPS sponsored a major conference in April, 2010, which highlighted medical research efforts and results, presented anthropological and botanical papers from ayahuasca research, and drew a broad audience from both the above- and underground factions of psychedelic research. From the sociological perspective of the tensions and disagreements of the two segments of the field, it was a significant event, with the appearance on the same stage at the tribute to the Shulgins, of leading members of the medical research community such as Dr. Andrew Weil and Dr. David Nichols, and leading underground chemist, Nick Sand, of the Brotherhood of Eternal Love,¹² a psychedelic outlaw and one of the culture heroes of the underground.

The ironies and contradictions of the split field are obvious to any insider. Aboveground researchers often were introduced to psychedelics as members of the counterculture; while they never discuss their own psychedelic use in public, unless in reference to youthful experiments in the distant past, their personal knowledge, participation, and commitment clearly informs their research. To

¹¹ Quoted from their website at www.maps.org: The Multidisciplinary Association for Psychedelic Studies is a membership-based, IRS-approved 501 (c) (3) nonprofit research and educational organization. Our mission is 1) to treat conditions for which conventional medicines provide limited relief—such as posttraumatic stress disorder (PTSD), pain, drug dependence, anxiety and depression associated with end-of-life issues—by developing psychedelics and marijuana into prescription medicines; 2) to treat many thousands of people by building a network of clinics where these treatments can be provided; and 3) to educate the public honestly about the risks and benefits of psychedelics and marijuana.

¹² The Brotherhood of Eternal Love

admit current use publically would of course be unwise in the program of legitimizing their research. At the same time, some of the ethnobotanists, such as Keeper Trout (Trout 2007) and Snu Voogelbreinder (Voogelbreinder 2009) who identify with the underground, have produced important and extensive works, outside of academia, but of reference value to both sides of the field.

2.2 Literature Review

The Literature Review is arranged under the following headings: Consciousness Studies, Phenomenological Perspectives, Altered States of Consciousness Research, Anthropological Studies of the Psychedelic Sphere, Cultural History of Psychedelics, and the Literature of Psychedelic Self-Exploration. This arrangement progressively narrows the focus to the specific body of texts that in the Literature of Psychedelic Self-Exploration, the sources for first-person accounts of linguistic phenomena in the psychedelic sphere, with which this thesis is especially concerned. This thesis draws on material from all the categories of literature.

2.2.1 Consciousness Studies

Consciousness itself had been operationally disbarred from scientific discourse in the early 20th century as psychology turned to behaviorist models (Baars 1997) and empirical methods, excluding all forms of subjective introspectionism.

Psychophysics, with its experimental designs, accepted subjective reports about clearly defined bits of perception, memory, and cognition as reliable enough to produce repeatable experiments, verifiable and useful generalities, and even laws. Cognitive science, a discipline dating from the early 1970's, reveals the largely unconscious nature of many of the processes that support conscious cognition—memory, perception, linguistic processes, planning, etc.—and hence, knowledge

processes of all sorts (Lakoff and Johnson 1980; Baars 1997; Lakoff and Johnson 1999).

Contemporary consciousness research has aligned itself on opposite sides of an explanatory gap David Chalmers (1996) named “the hard problem.” The hard problem is the experienced but unexplained unity of mind and body in the production of experience, or, for that matter, the experience of experience. Experience is considered to be an essential component of consciousness, if not, indeed, its essential nature. As Baars notes, “Traditionally, subjectivity concerns the experiencing self.” It is in terms of experience as an irreducible phenomenal domain that Chalmers poses the hard problem.

This gap is no recent discovery but as old as the mind-body problem. Descartes, followed by Leibnitz, takes the position that this dualism—and the gap between—is finally only bridged by a third party: God. Knowledge on the body side of the problem such as advances in neurophysiology, neurochemistry, and brain imaging techniques, using empirical (objective, third person) methods, made great strides in the last decade of the 20th and into the 21st century. The self-reflection that underlies the discipline of philosophy, along with the assumption that an individual—a person, a self—using a mind to regard itself and the world, can make valid observations, synthesize data, and form complex and coherent theories about mind, body and consciousness, persists in the philosophy of mind approach to the hard problem debate, though not necessarily with a deep examination of the nature of the self or subject that is making the observations.

What makes the hard problem hard is also a matter of debate. In part, one looks to the terms in which it is posed, as a mind-body (or physical-mental or subjective-objective) dichotomy. These seemingly irreconcilable opposites are framed by the cognitive structure of dichotomy. This structure is built into the foundations of

western logic, and the structure of natural language grammars. Lakoff and Johnson find this foundation in our fundamental apprehensions of embodied knowledge—the primal understanding of inside and outside (of the body), up and down (the body in a gravity well), etc. Another matter that makes the hard problem so intractable is the paradoxical nature of the act of the mind/self/consciousness observing itself, where the paradoxes of self-reflexivity throw up a hall of mirrors, including infinite regress. This was the heart of Gilbert Ryle's objection to a subjective approach, instead of the (apparently) more direct method of third person observations of empirical science, despite the fact that all third person observations of things, states, or processes are by default made by first person subjects asserting third person objectivity.

One approach to the hard problem—no one would call it a solution—is the materialist reduction, which makes of mind a physical matter, thus eliminating one side of the gap and eliminating the problem by defining the mind as epiphenomenal. (Shear 1998). A different approach, fundamentally materialist, are the hypotheses of Roger Penrose and Stuart Hameroff that consciousness arises at the quantum level of the brain in the microtubules of the neurons (Shear 1998). This explanation descends to the scale of matter where matter itself is profoundly re-defined and where the paradoxes of the quantum level of description resonate with the paradoxes of self-reflective consciousness.

In cognitive scientific models of consciousness, as summarized by Baars, the self is referred to as a functional cognitive "system," but not analyzed philosophically, or described as an experiential field "from within." This contrasts sharply with Varela's close analysis of "self" from a Buddhist perspective, where the self, upon trained observation, in essence disappears. The "self" is often used naively as a basic assumption or common-sense reality, or identified with functions, as Dennett

identifies the self with "conscious access function" without conjoining it with either the mental or physical side of the mind-body argument.

The hard problem, and the explanatory gap it reveals to those who define it as such, is dismissed as a problem by some. John Searle:

Until recently, most neuroscientists did not regard consciousness as a suitable topic for scientific investigation. This reluctance was based on certain philosophical mistakes, primarily the mistake of supposing that the subjectivity of consciousness made it beyond the reach of an objective science. Once we see that consciousness is a biological phenomenon like any other, then it can be investigated neurobiologically. Consciousness is entirely caused by neurobiological processes and is realized in brain structures (Shear 1998).

Subjectivity is reduced to objectivity, or mind to matter. Valerie Hardcastle describes herself as a materialist: "I am a committed materialist and believe absolutely and certainly that empirical investigation is the proper approach in explaining consciousness." She argues that the two camps are separated by fundamental assumptions, matters of belief about matter and mind. The other camp are those that believe that there is something discovered by primary observation—David Chalmers' *experience* (qualia, or phenomenal consciousness), or Thomas Nagel's "the feeling of being like"—that will not in a fundamental way reduce to the physical, creating an explanatory gap unbridgeable by future empirical efforts, but only crossable—if at all—by granting consciousness as primary a status as the physical (Chalmers 2002). The belief that subjective phenomena, at least in part, yield a picture of the world as having something more to its constitution than a collection of mind-independent entities, suggests Richard Warner's notion of "in corrigibility." Traditionally, incorrigibility is the conception that "at least for some mental states, necessarily, if one believes one is in pain, then one is" (Shear 1998). For Warner, if incorrigibility exists, the consequence is that "physical science as we currently conceive it cannot explain the mind." It is the incorrigibility factor added to Chalmers' "felt qualities" where "what unites all of

these states is that there is something it is like to be in them" that gives further plausibility to a non-reductive claim¹³ (Chalmers 1996).

2.2.2 Phenomenological Perspectives

Francisco Varela approaches the hard problem methodologically (Shear 1998).

Building on the phenomenological tradition from Edmund Husserl through Maurice Merleau-Ponty, he begins with "the irreducible nature of conscious experience. Lived experience is where we start from and where all must link back to, like a guiding thread"(Varela and Shear 1999). The method involves the phenomenological reduction, or epoché, a specific attitude or gesture that changes "a naïve or unexamined experience into a reflexive or second-order one." Varela differentiates the phenomenological reduction from an uncritical introspectionism in particular, locating and putting in abeyance what we think we 'should' find, or some 'expected' description. Thus the PhR "is not a 'seeing inside', but a tolerance concerning the suspension of conclusions that allows a new aspect or insight into the phenomenon to unfold." Of particular relevance to the self-other category under examination, Varela states, "In consequence this move does not sustain the basic subject-object duality but opens into a field of phenomena where it becomes less and less obvious how to distinguish between subject and object (this is what Husserl called the 'fundamental correlation.')." Further, he asserts,

Through PhR, consciousness appears as a foundation which sheds light on how derived notions such as objective and subjective can arise in the first place. . . The line of separation—between rigour and lack of it—is not to be drawn between first and third person accounts, but determined rather by whether there is a clear methodological ground leading to a communal validation and shared knowledge (Varela and Shear 1999).

¹³ Rhetorically, though, the bias toward physicality reveals itself in the use of the word "incurigible" to characterize the subjective, a term often applied to persons with bad behavior. Subjectivity—misbehaving again.

Phenomenological perspectives can provide a bridge between Western and Eastern paradigms of consciousness on the methodological side. Globus and Franklin describe the perception of subject-object in meditation: The “reason” we can say nothing—that is, make no distinctions—about the subject other than that it “is” is that the very process of making distinctions is the subject, and the process of making distinctions (about making distinctions) is the subject; and so on.” (Shear 1998). From a phenomenological perspective, how we observe not only affects what we observe, and brings new observations into view, but affects our experience of ourselves as observer. This recognition that the conception of self can shift in the act of observation, in the phenomenological perspective, especially in reference to the altered states of consciousness (ASCs) of meditative states, offers an approach to altered states of consciousness research that the protocols of experimental psychology, based on a priori assumptions of single realities and single states of consciousness do not afford.

2.2.3 Altered States of Consciousness Research (ASCR)

Karl Pribram’s 1980 review of the issues that have successively dominated the study of psychology, states, “Currently the study of consciousness as central to the mind-brain problem has emerged from the exploration of altered and alternative states produced by drugs, meditation, and a variety of other techniques designed to promote psychological growth.” (Davidson and Davidson 1982) The data of ASC from William James forward, while frequently presented in the *Journal of Consciousness Studies*, as well as in journals devoted specifically to these altered states, such as *The Entheogen Review*, has not, for the most part, been theoretically integrated with the ‘mainstream’ of consciousness studies as represented by philosophers of mind (Chalmers, Dennett, P.M. Churchland, P.S. Churchland, Searle); neuroscientists (Crick, Koch); and quantum theorists (Hameroff, Penrose).

William James' call for a radical empiricism (2003) that admits reports of the range of experiences reported from mysticism, psychoactively-induced states, and psychic research into the main body of psychology, while rejected by the dominant paradigm of behaviorism in the first half of the 20th century, foreshadows the development of humanistic psychology, and its sibling, transpersonal psychology. Both disciplines represent significant departures from behaviorism on the one hand and psychoanalysis on the other, two major psychological paradigms of the first half of the 20th century. Both disciplines have strong connections to ASCR.

Theoretical investigations of altered states of consciousness research in the 1960's and 70's describe consciousness as a multivariate or multistate condition that can be moved off a baseline or default setting by a variety of means: somatic practices such as yoga, meditation, dance, breathing techniques, and martial arts, and direct induction through seretonergic (among other) perturbations of brain chemistry, via psychoactive materials, in their natural plant forms or synthesized. These means produce changes in consciousness that are different enough from baseline to be considered, in Charles Tart's term, discrete altered states (dASC) that can be compared to baseline state of consciousness (SoC) settings (Sugarman and Tarter 1978).

The phenomenology of consciousness has been pursued in Asian philosophy and its associated somatic practices for millennia. Attempts to integrate these dual strands of Western and Eastern philosophy and science flourished in the period of time roughly from the 1950's through the 1970's with ASCR bringing together psychological, literary-philosophical, medical-psychiatric, psychotherapeutic and anthropological perspectives (Fischer 1971; Metzner 1971; Weil 1973; Gowan 1974; Huxley 1974; Tart 1977).

The early years of ASCR have several main tributaries. From the 1950's until the early 70's, when the scheduling of psychedelic materials cut research funding drastically, LSD and psilocybin were extensively researched in the medical, psychiatric, and biochemical disciplines. David Nichols surveys and updates this neurochemical and psychopharmacological history (Nichols 2004). During the 1960's to mid-1970's, (roughly the years of the *Journal of Altered States of Consciousness*, edited by Roland Fischer), one finds a mixture Western scientific and Eastern philosophical explorations and the development of philosophical and psychological models of multiple states of consciousness. Tart's systems approach to ASCR, followed by his proposal for the practice of state-specific sciences (SSSs), are generalized to include many methods of induction of the ASC and concomitantly, any content therein. Roland Fischer's model of levels of reality and levels of perception is more content-specific, combining altered states from the creative, the psychotic, and the mystical in a single cartography mapped against EEG correlates developed through successive versions of the model (Figure 7). Each of these models incorporates a concept of discrete levels of consciousness. Both Fischer's and Tart's work is grounded in the methods of science and psychological experimentation, and expands developmentally to include more humanistic concerns.

The concept of multiple levels of reality and perception is the heart of quantum physicist Basarab Nicolescu's *Manifesto of Transdisciplinarity* (2002). Nicolescu's work, though in no way identified with ASCR as a field of study, explicitly deals with multiple states of consciousness. Nicolescu describes the specific shift of consciousness that it takes for him to directly apprehend quantum realities. He also includes mystical levels of reality in his model, and is the author of a work on mystic Jacob Boehme (Nicolescu 1991). Both Tart and Nicolescu propose the need

for new logics and an essential reference to lived experience. Both find the solution to matters of validation of the data of personal, lived experience, to be possible by intersubjective communication, as does Varela. Nicolescu, Tart, and Varela each look to the humanizing of scientific investigations by the inclusion of the personal dimension of meaning.

The hard problem gets a whole lot harder when the ontological status of experience of mind, body, self, other, and the worlds in which they find themselves (or disappear from view) is thrown into question. As William James noted, toward the end of his frequently-quoted passage about nitrous oxide experiences,

No account of the universe in its totality can be final which leaves these other forms of consciousness quite disregarded. How to regard them is the question—for they are so discontinuous with ordinary consciousness. Yet they may determine attitudes though they cannot furnish formulas, and open a region though they fail to give a map. At any rate, they forbid a premature closing of our accounts with reality. (James 2002).

Roy Ascott brings the discourse of psychoactive plants and shamanic experience into the domain of art, in his discussion of the three VR's. Validated Reality, "our daily experience, is familiar to us all. It is the orthodox universe of causal "common sense", the way we are taught at school to view the world, a consensual reality established early in our lives by the constant repetition of its axioms. Virtual Reality describes the realm of telematic and immersive, interactive art and digital technology. Vegetal Reality "can be understood in the context of technoetics, as the transformation of consciousness by plant technology." (Ascott 2001).

2.2.4 Anthropological Accounts of the Psychedelic Sphere

Studies of the world-wide occurrence of psychedelic shamanism document the role of the expert in ASC as one of central value to human social life from its earliest beginnings. The shaman's ecstatic states provide the context and the means for

physical and psychological healing. In particular, studies of contemporary ayahuasca cultures flourished in the 1980's and 90's, perhaps encouraged by the legal status of ayahuasca brews as religious sacraments in South America. These studies (Halifax 1979; Krippner and Villoldo 1986; de Rios 1992; DeKorne 1994; Larsen 1998; Metzner 1999; Polari de Alverga 1999; Winkelman 2000; Narby and Huxley 2001; Shanon 2002) combined with the contemporary and historical studies of psilocybin sacraments in Mexican cultures, provide a wealth of data about the visionary content of these states, in contrast to the early model-building structural accounts in ASCR of the 60's and 70's, which are often spare at best in describing specific contents. From the anthropological perspective, the healing potential of psychedelics such as psilocybin, ayahuasca, and peyote applied in their own cultural contexts is exhaustively documented (McKenna 1998). For my own research, the anthropological literature abounds with accounts of "the other" encountered in the psychedelic sphere, and constitutes one of the foundations for my own examination of the noetic encounter between self and Other in Chapter 4, "Contact with the Other: Knowledge Acquisition in the Psychedelic Sphere. Recent connections between important scientific discoveries (Francis Crick and the structure of DNA; Kary Mullis and the polymerase chain reaction) and LSD use, are illustrative of this noetic function of the ASC (Mullis 2000).

2.2.5 Cultural History of Psychedelics

An increasing number of books explore the influence of psychedelics on various aspects of culture: literature and philosophy (Boon 2002; Boothroyd 2006); technological development of the personal computer (Markoff 2005); and the ecology movement (Metzner 1999; Doyle 2010), as well as histories of the government's secret LSD research (Lee 1992; Black 1998); psychedelic and visionary art and music (Grey 1998), underground psychotherapeutic movements,

utopian communities, and the new tribalism of rave culture and Burning Man (Champion 1997; Melechi 1997; Pollan 2001; Davis 2003; LadyBee 2003). They provide the cultural context in which ASCR, considered as an academic topic, exists. The Vaults of Erowid are a well-organized resource on many facets of psychedelics from scientific articles on chemistry, ethnobotany, legal issues, and personal accounts of psychedelic events. While the cultural history of ASCR is not my primary focus, an understanding of its contended territory, given the scheduling of research chemicals and the civil rights issue of cognitive liberty, is important in considering the texts of unauthorized activity of psychedelic self-exploration and the cultural setting in which this literature was created.

2.2.6 The Literature of Psychedelic Self-Exploration

This literature, old and established enough to have its historical canon (de Quincey 1979; Baudelaire 1999; Ludlow 2006; Rimbaud 2008), and more recently, the psychedelic-related literature from the 1940's forward is where the subjective content of the experiences—the alien worlds, the unearthly visions, the demons and angels—are described in depth (Artaud, 1976 #109; Bache, 2000 #85; Dick, 1991 #300; Leary, 1964 #291; Leary, 1973 #154; Leary, 1979 #156; Leary, 1994 #158; Leary, 1995 #155; Leary, 1997 #152; Leary, 2001 #149; Leary, 2002 #148; Leary, 2003 #151; Lilly, 1972 #163; Lilly, 1976 #3; Lilly, 1977a #160; Lilly, 1978 #164; Lilly, 1977b #161; McKenna, 1992a #2; McKenna, 1992b #165; McKenna, 1993 #144; McKenna, 1993 #63; Michaux, 1956 #200; Moore, 1978 #93; Pinchbeck, 2002 #206; Pinchbeck, 2006 #205; Powell, 2007 #263; Sutin, 1991 #138; Wilson, 1977 #167; Wilson, 1994 #96).

This literature has been largely lumped under the rubric of traveler's tales, or "trip-lit" with the metaphor of explorer or "psychonaut" being applied to those for whom these explorations became a central occupation. New systems for understanding ASC and their contents, how to induce, navigate, and function

within ASC; and psychological models that incorporate the data from ASC, have been proposed, especially in the works of Lilly, Leary, and McKenna. To date, these texts, and their stories, practical advice, and theories have not been dealt with in depth as 'data' for ASCR, except anecdotally. Therefore, there is little critical consideration of their reports, in academic discourse. In so far as these explorations, carried out in spite of the existing legal sanctions, could be categorized as 'outlaw science' they tend to be ignored or sidelined by those researchers who are attempting to bring psychedelics back into legitimate research, an uphill battle in which small but significant breakthroughs are beginning to occur. At the same time, they are widely read by those attempting similar explorations (Doyle 2009). These records of psychedelic self-exploration by Leary, Lilly, and McKenna (and others) are a source of material that the scientific paradigm has no clear means of incorporating into its models. These texts constitute a separate track of ASCR that I include as central to my research.

3 Methods

Psychedelics are utilized in a wide variety of practices: artistic, spiritual, and noetic (knowledge-seeking). Each practice entails its own methods. Methods vary greatly from the highly structured religious ceremonies of Santo Daime, União do Vegetal, and Barquinha, to the idiosyncratic methods of artists who have incorporated psychedelics in their practice in the creation and/or performance of work. The noetic practices of individuals in search of knowledge in the psychedelic sphere, especially knowledge about consciousness itself, are the concern of this thesis.

Roy Ascott's definition of technoetics as a knowledge practice (2003) frames the description of the psychonautic practice from which the data for this study is derived. The examination of these issues is followed by an account of knowledge acquisition in the psychedelic sphere, through different practices, and concluding with an account of my own technoetic practice, the session reports and artistic production from which the thesis emerges.

Technoetics is defined by Roy Ascott as

a convergent field of practice that seeks to explore consciousness and connectivity through digital, telematic, chemical or spiritual means, embracing both interactive and psychoactive technologies, and the creative use of moistmedia (Ascott 2003).

Technoetics as method infuses the Planetary Collegium program at the University of Plymouth and has, over the past 20 years, defined a community of practice, now spread to the Zurich and Milan nodes of the program.¹⁴ The majority of the technoetic research has been in the digital, telematic and interactive practices. Technoetic practice has its own journal: *Technoetic Arts*, published by

¹⁴ The program, as of August, 2010, has 20 Ph.D. graduates, and 54 current candidates among Plymouth, Zurich and Milan, with the method being applied in dance, music, architecture, interactive art, and video.

Intellect Books. Two recent dissertations, by Diane Gromala (Gromala 2006) and Carlos Nobrega (Nobrega 2009), illustrate uses of the technoetic approach. My research is the first instance of the technoetic use of the chemical/psychoactive means, and combines the psychoactive with the digital means in the use of software developed and used for exploration of linguistic phenomena in the psychedelic sphere. Psychonautics is the term I will use for the psychoactive means of technoetic practice; psychonautics with the addition of technology brings it into the definition of the technoetic. In the case of this dissertation, my art practice supports the psychoactive practice, whereas the other examples above (Farmer)foreground the artistic practices of the scholars. The DVD, with examples of animations of Glide language, provides a visual illustration to support the analysis of psychedelic symbolic systems, not as a statement about my artistic practice per se, and, as such, is important to the understanding of Chapter 6, "Xenolinguistics."

3.1 A Transdisciplinary Stance

A transdisciplinary stance toward knowledge enfolds technoetics as practice in the Planetary Collegium.

As the prefix "trans" indicates, transdisciplinarity concerns that which is at once between the disciplines, across the different disciplines, and beyond each individual discipline. Its goal is the understanding of the present world, of which one of the imperatives is the overarching unity of knowledge (Nicolescu 2002).

The term was introduced by Jean Piaget in 1970, expanded by Basarab Nicolescu, and adopted by Francisco Varela.

3.1.1 Subjectivity/Objectivity

The repression of the subjective in the scientific episteme, (Varela and Shear 1999; Wallace 2000) and the controversial status of the self it/self in consciousness studies highlights an epistemological clash, as C. P. Snow's formulation of "the

two cultures" famously outlined (1963). David Porush (1993) characterizes this dialectic:

As the result of its rationalist inheritance and its persistent objectification of the observer, science relies on a discourse that has had inordinate difficulty enfolding or describing its own acts of knowing. From the very early days of the Royal Society when Wilkins and Sprat failed in their attempt to define a pure language of science, devoid of metaphor or embellishment, science has never successfully purged the messiness of metaphor and the polysemy of human language.

What David Chalmers defines as "the hard problem"—how to bring together objective or third person data about brain and behavior with the first person reports of conscious experience, gets a whole lot harder when the second half of the equation, or correspondence, labors under the handicap of erasure, invalidation, and reduction by the dominant episteme of science. As Pierre Vermersch states in Thompson and Varela's edited collection, *The View From Within: First-person Approaches to the Study of Consciousness*, "As a result of my many years of exposure to the literature on introspection I sometimes get the impression of being overwhelmed by the negative implications of all the critical objections, to the point of almost forgetting the practical efficacy of introspection. Do we have to take the time to criticize the critics of introspection?" (Vermersch in Varela and Shear 1999).

The scientific discourse on human reporting of internal events is generally framed grammatically as a matter of persons and points of view: first, second, and third, a notion that can veil the fact that the reporting human has a choice of points of view from which to report. A more subtle question than "Which of these viewpoints is the most appropriate to the current task—the study of consciousness in altered states?" would be "How do I characterize the viewpoint from which this choice is determined?" What is the meta-viewpoint that can slide from point-of-view to point-of-view in the flow of a narrative? In other words, what viewpoint

do I occupy in asking these particular questions, a questioning designed in part to disrupt the assumption within the field of consciousness studies that such a viewpoint must be chosen, from which certain methods will then be rendered appropriate?

Varela and Shear make a critical point that

It is here that methodology appears as crucial: without a sustained examination we actually do not produce phenomenological descriptions that are rich and subtly interconnected enough in comparison to third-person accounts. The main question is: How do you actually do it? Is there evidence that it can be done? If so, with what results?"

In answering "How do you do you actually do it?" the methods Varela and colleagues detailed are threefold: the introspective approach, from scientific psychology; the phenomenological reduction from the Husserlian tradition; and the pragmatic approach of Buddhist and Vedic meditation practices. The phenomenological epoché, a concept adopted from Husserl, but with roots in Aristotle and Descartes, posits the ability to bracket the phenomenon under inspection in consciousness from, essentially, the world, and all attendant beliefs and "naturalistic" attitudes. It has been noted that Husserl never succeeded in teaching others the art of phenomenological reduction, a practice that, in description, presents as difficult an attainment as the development of a mature contemplative practice, Varela's third suggested method. Charles Laughlin as well recommends a mature contemplative practice as a desirable pre-requisite to the observation of consciousness. Both of these approaches, phenomenological and contemplative, have been investigated intellectually at great length, and, as ideas, have offered a needed counterbalance to the assertions of science that all forms of "looking within" are essentially useless, if not to the well-being of the individual, then to the acquisition of knowledge in the scientific sphere. As practical, useful methods which must be

practiced, if not perfected before one even begins a study of one's own consciousness, they come up short—not from some pre-judgment of their efficacy, but for the simple reason that such a practice, at least in the case of meditation, takes years to bring to maturity. The question can be asked whether Varela, et. al., in pleading the case for first-person methods from the minority side of the aisle, are not in some sense overcompensating by offering such advanced and lengthy training for first person perspectives, when the training for the third person objective method takes the practice of objectivity, and the art of observation itself for granted, requiring no particular training beyond the technical mastery of varied instrumentation.

3.1.2 Nicolescu and Transdisciplinarity

Basarab Nicolescu is a Roumanian theoretical physicist and a scholar of the mystic Jacob Boehme (1991). His formulation of transdisciplinarity is an attempt to provide a theoretical framework from which to integrate knowledge from several levels of reality. It arose in the context of what Nicolescu calls a “disciplinary Big Bang,” the “Babelization” and fragmentation of disciplines and their languages. Multidisciplinarity and interdisciplinarity are two responses to this fragmentation. Nicolescu defines multidisciplinarity as studying a research topic from the viewpoint of not one, but several disciplines at the same time, with the findings from over the disciplinary boundaries as supplemental to the “home” discipline. Interdisciplinarity is defined as “the transfer of methods from one discipline to another” but with its goals still firmly within disciplinary research per se.

The ontological status of experience in the psychedelic sphere is called into question at every turn: was that perception (of the interconnectedness of all of nature, self included; of a sea of giant fluorescent violet snakes) *real*? If so, in what

sense? "Reality" and "level of Reality" as Nicolescu defines them are useful for the discussion of reality in the psychedelic sphere.

Here the meaning we give to the word reality is pragmatic and ontological at the same time. By "Reality" (with a capital R) we intend first of all to designate that which resists our experiences, representations, descriptions, images, or mathematical formulations (Nicolescu 2002).

For Nicolescu,

The Godelian structure of Nature and knowledge guarantees the permanent presence of the unknown, the unexpected, and the unpredictable. . . The opening of transdisciplinarity implies, by its very nature, the rejection of all dogma, all ideology, all closed systems of thought. This opening is the sign of the birth of a new type of thought turned not so much toward answers as questions. The Subject is himself the unfathomable question that assures the permanence of questioning.

I take Nicolescu's ideas of "opening" as a methodological pragmatic.

Opening brings an acceptance of the unknown, the unexpected, and the unpredictable. There are three kinds of opening: the opening of one level of Reality toward another level of Reality, the opening of a new level of perception toward another level of perception, and the opening toward the zone of absolute resistance, which links the Subject and the Object (Nicolescu 2002)

The concept of a "level of reality" is critical:

By "level of reality," we intend to designate an ensemble of systems that are invariant under certain laws: for example, quantum entities are subordinate to quantum laws, which depart radically from the laws of the physical world. That is to say that two levels of Reality are different if, while passing from one to the other, there is a break in the laws and a break in fundamental concepts (such as, for example, causality). No one has succeeded in finding a mathematical formalism that permits the difficult passage from one world to another.

In this context of differing laws for different levels of reality, Nicolescu asserts that different logics apply to different levels of reality. In particular, he names "the Law of the Included Middle" as one of the pillars of transdisciplinarity (2002).

Applying this to the problematic of different levels of reality in psychedelic experience, I have developed the idea of a rough division between what I call the "rules of evidence" at baseline reality, meaning the laws of logic and argument underlying the project of rationality, and the "rules of self-evidence," being that which is discovered to be self-evidently, at times apodictically, true in states of

altered consciousness. Self-evidence is it/self, self-evident. It is in the dialogue between these two forms of logic that the integration of knowledge from multiple states takes place.¹⁵

Nicolescu describes the underlying unity of seemingly contradictory versions of Reality thus:

The discontinuity that is manifested in the quantum world is also manifested in the structure of the levels of Reality. That does not prevent the two worlds from coexisting. The proof: our own existence. Our bodies contain simultaneously a macrophysical structure and a quantum structure (Nicolescu 2002).

Further discontinuities in levels of reality are presumed in his understanding of Boehme's mystical reality. Nicolescu speaks in similar terms of re-union:

Transdisciplinarity transgresses the duality of opposing binary pairs: subject/object, subjectivity/objectivity, matter/consciousness, nature/divine, simplicity/complexity, reductionism/holism, diversity/unity. This duality is transgressed by the open unity that encompasses both the universe and the human being.

Nicolescu asserts that the rigor of transdisciplinarity is "a deepening of scientific rigor to the extent that it takes into account not only things, but also beings and their relations to other beings and things" (2002).

The psychedelic sphere, in this framework, is another level of reality, or multiple levels, operating with different laws. Benny Shanon describes this difference in reality in his experience of observing a cleansing ritual gesture of passing incense over a *madrinha's* body during an ayahuasca ceremony:

What I experienced was literally this—seeing the casting of a shield against evil powers. It all seemed to have a very serious and sombre allure, and manifestly, it was all invested with magic. If I were to define what made it all so mysterious I would say that it was the fact that on the one hand everything pertained to another reality, while at the very same time it was all real. Again, no hallucination as such was

¹⁵ Nicolescu cites Stéphane Lupasco's three-valued logic (A, No-A, and T, (which is at the same time A and non-A)) as the appropriate logic for understanding the passage from one level of reality to another—the reconciliation of contraries in the T.

experienced—technically what I was seeing was real, and none the less it was all utterly non-ordinary, and enchanted (Shanon 2002).

The world of magic and vision he describes operates by different laws, for instance, laws about the influence of another's intentions on one's well-being, and the efficacy of the ritual gestures. As Shanon points out, to an outsider the ceremony, one not under the influence of ayahuasca vision, the incense cleansing is symbolic; to the participant, inside the ayahuasca reality, the action is literal, as are the possibilities it protects against. These laws are functional within their zone of reality.

Roy Ascott calls this type of experience "double consciousness."

By double consciousness, I mean the state of being that gives access, at one and the same time, to two distinctly different fields of experience (2003).

3.2 Varela and the Calculus of Self-Reference

Francisco Varela, a founding member of Nicolescu's Center for Transdisciplinary Research (Nicolescu 2002), developed his Calculus for Self-Reference as an extension of George Spencer-Brown's Laws of Form.

A key to the basic form of self-reference is how self-reference finds its way into language. As mentioned, the antinomies appear when language is used onto itself, that is, a proposition equivalent to its own negation. This antinomic form is paradigmatic of self-referential situations not only in language, and is in fact just the consequence of the circular interlocking of operator and operand in any self-referential situation we choose to look at (Varela 1974).

Varela's extension of Spencer-Brown's Calculus of Indications utilizes a third term as well, the form of re-entry into the form, in addition to Spencer-Brown's "marked" and "un-marked" states. He identifies this re-entry with self-reference; this re-entry is the logic of autonomy, a concept central to the description of autopoiesis.

Autonomy is seen in this light to engender the two stages of the form when this ceaseless process is broken into its constituents. By the introduction of a third autonomous state in the form, we do nothing but restore to our field of view that

which was there at the beginning, and which we can only see now reflected as segments of the world in language itself. Conversely, by taking self-reference and time as our *filum ariadnis* through a succession of levels, we dwell upon the re-union of the constituents of these levels up to our own union with the world, and thus find a way to retrieve the unity originally lost.

3.3 The Thesis It/Self: Self-Reflexivity

Roland Fischer states

The identity of thinking and being is seemingly contained in the simple statement, "I am conscious." But the paradoxical nature of analytical, logical thinking and the paradoxical nature of human existence, or being, are reflected in the double-bind nature of the statement itself. The "I am conscious" paradox is simultaneously a statement in an object language (about "I") and a statement in metalanguage (about "I am conscious"). It is, therefore, a self-referring statement which judges its own validity and hence has no signification in ordinary Aristotelian logic, where propositions of more than one dimension are not permitted. It is a violation of logical typing, but also a violation of semantic convention since both the subject "I" of the proposition "I am conscious" and the system that proposes to be conscious are identical." (Fischer 1977).

Consciousness is nothing if not self-reflexive. The paradoxes of self-reflexivity suffuse the discourse of consciousness, and are further complexified in the psychedelic discourse by extreme variations in states of consciousness and the concomitant shifting of the experience of self. Which (self, Self, selves) are reflecting which (self, Self, selves)? Or in the words of Sufi mystic Ibn 'Arabi, "Who reveals to whom whose mystery?" (Sells 1994).

Consciousness is nothing if not self-reflexive: when (self, Self, selves) dissolve along with no-self, one is delivered into the Void, one of the thousand masks of the unspeakable.

I will use the typographical pause 'it/self' to call attention to these self-reflexive moments that punctuate the discourse of psychedelic language.

The circle of self-reflection, where cause and effect interchange, where Diana reflects on herself (Self, selves) is a stable feature of an 'in vivo' eleven year self-experiment. "The work," the technoetic practice it/self, evolves through recursion, (self, Self, selves)-reflecting; further reflexivity occurs in the discursive act of

language being used to talk about it/self, as referenced in the quote from Dennis McKenna in the epigraph to Chapter 1.

Yet another layer of reflexivity is found in my technoetic practice where the practice it/self (as psychonautic self-exploration) becomes both the *method* and the *object* of the inquiry. Its narratives unfold, exploring multiple aspects of the practice (the development of digital tools, whose use becomes part of the practice; the psychedelic session protocols evolving iteratively over time, enfolding their own process of self-understanding.) A guiding idea, and a standard for this process has been David Porush's self-referential notion of epistemological potency, developed in the context of an article on the anthropic principle,¹⁶ and in response to the dialectic of the discourse of science and the discourse of literature, C. P. Snow's identification of a major fault line in our culture.

Descriptions of any intelligent system (and the Universe is obviously one; fictional texts create others) in order to achieve epistemological potency must include accounts not only of how the system is regulated and organized, and of how it communicates among its own parts, but also of how it knows and describes itself. In other words, any epistemologically potent system must include a discourse that enfolds its own intelligence (Porush 1993).

Porush argues (addressing the earlier point of "the taboo of subjectivity") that science, for 300 years, has

persistently excluded or de-privileged the human self as an intentional, expressive object from scientific discourse. At the same time, science also lacked a coherent formal model of natural language. As the result of its rationalist inheritance and its persistent objectification of the observer, science relies on a discourse that has had inordinate difficulty enfolding or describing its own acts of knowing. Gödel's incompleteness theorems could be said to express this difficulty mathematically.

Porush's epistemology is self-enfolding; its potency depends upon its capacity for self-reflection.

¹⁶ The anthropic principle elevates self-reflexivity to cosmological dimensions, an evolving universe whose telos is ultimate self-regard, self-reflection, and self-understanding, a notion presented in the Hindu concept of the net of Indra, Alex Grey's paintings of nets of eyes, and Borges' story of the Aleph.

3.4 A Technoetic Practice

In both art and science now, the matter of consciousness is high on the agenda. Science is trying hard to explain consciousness, with distinctly limited success. It seems to pose the most intractable of problems. For the artist, consciousness is more to be explored than to be explained, more to be transformed than understood, more to be reframed than reported (Ascott 2003).

Psychedelic self-exploration or experimentation—framed by Richard Doyle (2009) as psychonautics, “the human investigation of psyche through unavoidably first-person science,” presents methodological issues, especially if third-person science and the presumption of the detached, “objective” observer is the prevailing episteme, despite the implications of quantum physics’ imbrication of the observer and the observed. Devaluing subjectivity as unreliable, and in the same gesture decontextualizing the observing self, (not only from the object to be observed, but from observation of oneself observing, what Donna Harraway calls “the god-trick of seeing everything from nowhere” (Harraway 1991)) remains a cognitive shell game until, minimally, I can account for the method by which *I, the scientist*, accomplish this transformation from a first-person viewpoint, complete with goals, values, feelings, and expectations about my research, to an abstracted, emotion-free, value-free, non-indexical observer, a radical re-framing of personhood by fiat without even breaking an epistemological sweat. Here at the beginning of the edit of our self-defining text, the human genome, we are faced with profound ethical implications as to how we investigate, explain, or explain away consciousness. Demoting the subject to ghost in a moist machine, or the attempt to wholly erase the self it/self and the consciousness with which it is coterminous as epiphenomenal, an effluvia of biological processes themselves randomly derived from a purposeless universe, lays the groundwork for placing further restrictions on cognitive liberty and adds greater urgency to the newly expressed concerns of neuroethics. Devaluation of the personal as a method of knowledge production

sets the stage for further intrusions of mind-controlling practices, whether accomplished by surgery, pharmacology, torture, or law. The discussion of the “the work it/self” attempts to illuminate the inseparability and paradoxical intertwinement, though not the identity, of the objective and subjective viewpoints in the study of consciousness, within the context of psychonautic practice.

This research is practice-based. The technoetic practice, which generated the data from which a map of key features of the psychedelic landscape is constructed in Chapter 4, is situated in and compared with accounts and analyses of linguistic phenomena in the extensive literature of long-term psychedelic self-exploration. Chapter 5, “Neurophenomenological Perspectives on Language,” develops a notion of symbol and language that can be relevant to, if not encompass, these phenomena in all their diversity. Again, the task is not ontological, but phenomenological. Chapter 6, “Xenolinguistics,”¹⁷ examines and analyzes occurrences of linguistic phenomena in the psychedelic sphere, by experienced psychonauts.

Practice implies process. A practice is iterative, developmental, a process, not a state, a time-based site where goals shift and findings are provisional. Practice has the aspect of a drill: something you do over and over, and get better at—with practice, whether teaching, playing the oboe, doctoring, shamaning, playing

¹⁷ I have adopted the terms *xenolinguist* and *xenolinguistics* from science fiction, where the *xenolinguist* is a staple character enabling inter-species communications from *Star Trek* to Samuel Delaney’s *Babel 17*. Wikiiversity offers this wry definition: “Xenolinguistics is the scientific study of languages of non-human intelligences. Publications in this field tend to be speculative as few people have made the claim to have understood an alien language, at least not reliably.” <http://en.wikiiversity.org/wiki/Xenolinguistics>. Xenolinguistics was chosen over Exolinguistics and Astrolinguistics for its paronomastic echo of paradoxical intent. Otherwise, the terms are relatively interchangeable. It seems an appropriate term, naming a purely speculative discipline with little actual content to study phenomena whose content are more than passing strange.

basketball or poker, meditating, or painting. You develop “chops”: technical skill. The knowledge acquired is first *practical* knowledge, from which *theoretical* knowledge can be constructed. As practice evolves, theories change, always provisional, and secondary to the source of knowledge in the practice it/self.

I will examine and interpret a multi-year document of session reports of my own psychedelic self-experiments, undertaken for the specific purpose of exploring the territory of language, consciousness, and their co-evolution. Included are descriptions of interactive software developed for the purpose of working with the Glide symbolic system. These explorations had a clear focus from the beginning: to answer the even more specific questions, *What is Glide?* and *How is it linguistic?* During the same time period, this research was contextualized by search through the literature of consciousness studies, neurophenomenology, and psychedelics for useful maps and models, especially the reports and artistic production of other psychonauts, for further examples of such linguistic phenomena.

In its community of practice, psychonautics is highly varied when it comes to methods. Every psychonaut is essentially finding and modifying their own practice iteratively within the context of information about the practices of others, which influence the set of the psychonaut rhetorically.

. . . I assay the idea that despite their ineffability, trip reports persistently present rhetorical softwares or programs with which to replicate the psychedelic experience. Hence while there is little confidence in language’s capacity to represent the effects of psilocybin, mescaline or ayahuasca, trip reports, anthropological testimony and oral traditions are all nonetheless implicitly oriented to the linguistic management of psychedelic states. This management extends to the use of trip reports themselves to orient the psychedelic experience, to act as the recursive “set and setting” of psychonautic practice. “ (Doyle 2010).

Methodological information about the structure and conduct of a psychedelic trip comes through multiple sources: participation in institutionalized traditions, such as the South American ayahuasca churches Santo Daime, Uniao do Vegetal, and

Barquinha, the numerous “trip manuals” available in books and online, and the sharing of experiences with fellow travelers. The psychonautical texts with which this thesis is concerned are those of long-term psychedelic self-exploration where the psychonaut has journeyed out and returned multiple times, and written (or painted) extensively about the experiences.

Benny Shanon states the case for first-hand, long-term experience as “a methodological issue that I find paramount.” Shanon asserts that firsthand experience is essential, that “there is no alternative to studying phenomenology from within.” He considers that the studies where the investigator has no or very limited and “cautious” experience with the brew limits the value of such studies, and makes the analogy of trying to write about music without ever having heard it.

The spectrum of phenomena pertaining to the Ayahuasca experience is extremely broad and there is simply no way these can be captured in a small number of probes. . .And as with music, learning to know a field and to appreciate what is interesting about it requires longitudinal, cumulative experience. What happens to one under the Ayahuasca intoxication is determined not only by the brew itself but also by one’s attitude and stance, and these, in turn, change over the course of time. In sum, then, any serious study of Ayahuasca requires not only firsthand experience, but also substantive, long-term familiarity—indeed, training. (Shanon 2002)

It is important to note that some of these means are highly structured, especially those in religious and some shamanic settings. The cultural groups and individual researchers (Lilly, Leary, and the McKennas, for instance) each develop their own idiosyncratic method developing over time for exploration of the psychedelic sphere (McKenna 2009). One finds, in the examination of various practices, not method, but methods, which, in practice, are accomplished as protocols, rituals, guidelines, techniques, processes. Compare, for example, these widely varying descriptions of the framework for a psychedelic session. These descriptions are in no way intended to be a complete picture of the given practices. The Barquinha

experience was that of an ayahuasca tourist, or visitor, not from the inside, as a member of the community. It was chosen to highlight the vivid visual and musical surroundings of the ceremony. A much more detailed description from a member of a Barquinha community of the many types of ceremony and settings is given in Marcelo S. Mercante's dissertation on Barquinha (Mercante 2006). The second example is typical of the set and setting of a medical/psychiatric methodology. The third example gives the basics, often repeated by McKenna, of his solo protocol for taking psilocybin mushrooms. "Five grams dried, alone, in silent darkness." The technique of full isolation is found in perhaps its most pronounced form in John Lilly's development of the sensory attenuation tank.

First, an account, by Nicholas Saunders, of a Barquinha ayahuasca ritual:

Our hosts welcomed us, settled us into comfortable seats and asked what else we might need. "Something to vomit in" we replied, truthfully if not politely. They assured us that people practically never felt nauseous in the warm and supportive atmosphere of their church; still, I checked out how to get to the loo 'just in case'.

The service was fairly similar to the Santo Daime with Christian ikons, prayers and hymns, but the atmosphere was more light hearted, even playful, without us having to stand up and sit down on cue. Indeed, their uniforms were like toys straight from a dressing up kit: white sailor outfits with blue trimmings, gold tasselled epaulettes and badges picturing boats; while their sailor hats were embroidered with hearts for the women and stars for the men. They seemed to be making gentle fun out of their military uniform, just like the Gilbert and Sullivan opera *The Pirates of Penzance*. It was all very sweet and had a child like innocence.

After silent meditation in our seats, we queued up to receive the sacrament. This was served through a window next to the altar and, like the Santo Daime, was consumed immediately. It tasted as bad too, and I had a similar problem swallowing it. We then went outdoors where we were issued with candles and formed a procession back into the chapel led by bearers carrying a heavy statue of a veiled black Madonna. Back in our seats we sang, and with each hymn a sailor-girl pulled a rope to open the curtain a little wider (Saunders 1996).

Second, a description of protocols from psycholytic psilocybin therapy in the 50s and 60s:

The first psycholytic session is almost always preceded by psychoanalytic treatment that has lasted for months. . . . The setting is arranged in such manner that the patient is able to surrender to his experiences uninhibitedly. All authors recommend a

darkened room and quiet music to subtly stimulate the experience. The continuous presence of the therapist or a specifically trained assistant offers the patient protective support during the session. Occasional visits by the treating physician complement the care. These professionals do not intervene with interpretation during the course of the experience. . Interpretation and integration take place during drug-free intermediate sessions." (Metzner 2005)

Third, Terence McKenna's description of how to take psilocybin mushrooms:

When I take psilocybin I take it on an empty stomach...I just don't eat for 6 hours—and then I take it in silent darkness. Weigh the dose—5 grams dried. I sit with them and I chew them up. None of this mixing with applesauce malarkey. After I take it, I sit, I roll boppers, and I carry out what all good Catholics know as an examination of conscience. This means, you think of all the bummers that could jump out at you as soon as you get loaded. . .at about the hour and twenty minute mark. . .you're holding the space. . .it drifts down and surrounds you. . .at this point I pray. . . I smoke furiously. . ." (McKenna 2009)

The role of the symbolic and the symbolic driver in directing aspects of the psychedelic experience in Laughlin and Winkelman's work is taken up in Chapter 6, "Neurobiological Perspectives on Language." A lengthy explication of a central aspect of the noetic enterprise, knowledge-relations with the Other, which occur with regularity in many cultural and psychonautic practices, and are especially reported in shamanistic and religious settings, as well as in the specific cases treated in Chapter 6, "Xenolinguistics," is undertaken in [Appendix V], "Contact with the Other: Knowledge Acquisition in the Psychedelic Sphere."

3.4.1 Technoetic Practice and Language

One of the prevailing intentions motivating the practices of self-identified psychonauts such as John Lilly, Timothy Leary, and Terence McKenna is knowledge acquisition; this is the *noetic* part of the practice. The Glide case study, drawn from the author's technoetic inquiry develops and interprets the Glide symbolic system in detail. This analysis is not framed as the presentation of a complete language, nor with the agenda of its adoption for use by others as some

form of psychedelic auxiliary language.¹⁸ Rather, I describe my use of the Glide symbolic system to navigate, communicate, and learn within a variety of mindbody states, what Richard Doyle terms the “linguistic management of psychedelic states.” These personal, psychonautic uses of Glide—navigational, communicative, and cognitive, involved the development of a suite of software tools, the *tech* of the technoetic practice.

All language is psychedelic by definition, functioning to make manifest the mind, to bring thoughts, feelings, information, from the province of one mind to that of another. David Porush calls this “Technologically Mediated Telepathy”(1998). And Porush, David Abram (1996) and Erik Davis (1998) each relate their version of the narrative of how a psychedelic, originally synaesthetic, oral language-making connected us deeply and reciprocally to our natural environment, a mutual be-speaking that was progressively lost when writing, and most particularly alphabetic writing, froze knowledge-making into eternal two-dimensional signs laid out in rows on flat surfaces, signs you could come back to—and they hadn’t changed.

Ramachandran and Hubbard (Ramachandran 2001; Pribham 2003) speculate on a synaesthetic origin of language from a neuroscientific point of view. Synaesthesia as a feature of the psychedelic landscape comes to stand for the promise of reconnection, of noesis, of recovery of some long lost unity, within ourselves, among ourselves, within the world. Psychedelics can deliver synaesthesias with a noetic quality, at intense, supersaturated, high-bandwidth delivery rates.

¹⁸ An auxiliary language, or auxlang is generally meant to be a language constructed for the purpose of use by speakers of different languages, enabling a common ground of understanding. Esperanto and Interlingua are two such examples.

Dennis McKenna describes the translinguistic as "...something beyond language, that conveys meaning. Something like the Logos or pure knowing/understanding, where meaning is not separate or something pasted onto what is perceived. What is perceived is pure meaning. Or something like that..." (McKenna 2009). So we will walk with care the tightrope that stretches between language and the translinguistic over the abyss of the unspeakable

3.5 First Person Reports

Scientific treatment of first person reports is a place where the subjection of the work as a subjectivity to various objectifying treatments can be examined.

Cytowic's studies on synaesthesia, a common feature of the psychedelic landscape, reveal this difficulty. Questioning the reality or validity of these experiences in scientific discourse is common, and interesting ambivalences arise in the handling and evaluation of first person reports. On the one hand, Cytowic invokes *The Varieties of Religious Experience*, in which William James' spoke of ecstasy's four qualities of ineffability, passivity, noesis, and transience claiming, "These same qualities are shared by synaesthesia." Further, in the section titled "The Rejection of Direct Experience," Cytowic states that "Questioning its reality [synaesthesia] without first having some technological confirmation shows how ready we are to reject any first-hand experience. We are addicted to the external and the rational. Our insistence on a third-person, "objective" understanding of the world has just about swept aside all other forms of knowledge." At the same time, this very ineffability, is, for Cytowic, a bug, not a feature. He sympathizes with Heinrich Klüver, who, in trying to get his subjects to report on their mescaline hallucinations, "was frustrated by the vagueness with which subjects described their experience, their eagerness to yield uncritically to cosmic or religious

explanations, to “interpret” or poetically embroider the experience in lieu of straightforward but concrete description, and their tendency to be overwhelmed and awed by the “indescribability” of their visions...*Similarly, once Kluver got his subjects past elaborating or, even worse, explaining what they saw...*” (emphasis added). Clearly the *noetic* aspect of the experience is to be edited out by the “phenomenological” psychologist. Cytowic’s own example of pruning direct experience: “In explicating MW’s description of mint, I distinguished between his factual description of curved, smooth, and cool tactile attributes, and his analogical explanation of the taste as “cool glass columns” (Cytowic 1995). For Kluver, Cytowic, and Harrison, their subjects’ data is inherently untrustworthy, needing to be refined in such a way as to fit the categories established by the scientist for that experience. Further, when did adjectives such as *cool* and *smooth* attain such universal status? Is your smooth and my smooth the same smooth? Are there degrees and admixtures of smooth? How does one fix as fact a word that can be used to describe wine, dance movements, the texture of soft ice cream, and the way a pickup line is delivered? More significantly, perhaps, interpretation is assumed to be the privilege of the scientist; profound noesis, often a part of synaesthetic experience, psychedelic or otherwise, is stripped from the ‘primary experience,’ invalidated, and tamed by the scientific reduction of ‘only the facts’ (Slattery 2004). Since ineffability is at the heart of this thesis, the emotive aspects (“overwhelmed and awed,” “eagerness”) as well as the poetry and the cosmic or religious interpretations are certainly part of the “direct experience” and its phenomenological report. This discussion may help the reader to understand the presence of both colorful and non-academic language in my writing. More to the point, I presume that there is no clean division between describing an observed phenomenon and interpreting that phenomenon, as James indicates: “the meaning

that arises from the particulars of experience is part of experience itself.”

Anthropology and archaeology have struggled methodologically to come to terms with the interpretive aspects of their disciplines, and the manner in which one’s prior interpretations inevitably bias one’s current observations (Narby 1999; Balter 2006).¹⁹ The approach taken in this thesis to the texts of psychedelic self-exploration is to treat them like literature, texts belonging to the humanities, and leave them intact: metaphor, hyperbole, repetition, contradiction, poetry, interpretations, theories, assertions, stated omissions, stylistic quirks. Rhetorically, the form and style of the speaking is given as much attention as the content in determining meaning, if indeed these two aspects of a text can easily be separated. The procrustean method of pruning texts to fit a scientific standard of ‘objectivity’ as above, or of avoiding textual production entirely in favor of multiple choice survey questions is eschewed in favor of letting the texts stand as they are. William James’ use of the “*document humain*” in examining religious and mystical experience is useful here.

If the inquiry be psychological, not religious institutions, but rather religious feelings and religious impulses must be its subject, and I must confine myself to those more developed subjective phenomena recorded in literature produced by articulate and fully self-conscious men, in works of piety and autobiography. . . .The *documents humains* which we shall find most instructive need not then be sought for in the haunts of special erudition—they lie along the beaten highway (James 2002).

I will not tax this discourse with a retroactive apology for James’ use in 1912 of “men” for all of us; at the same time I will note that the majority of the literature of psychedelic self-exploration, up to the present day, has been written by men, and by necessity, the majority of the quotes the reader will see are from men. The point taken is James’ choice of *those more developed subjective phenomena recorded in*

¹⁹ Simon and Garfunkel state this succinctly in a line from the song “The Boxer”: “A man sees what he wants to see and disregards the rest.”

literature produced by articulate and fully self-conscious men. In this thesis, how are the choices made as to which texts can best further our knowledge of the psychedelic sphere? What constitutes authority? It is precisely a judgment call—does the text provide new insight? Is it well articulated? Is there evidence of a long-term, developed psychonautic practice? Personal passion for the topic discussed, and skilled use of language, all play their part. All of these are aspects of rhetoric, the art of using language to persuade through *logos*, *pathos*, and *ethos*: broadly, *logos*, the appeal to reason, through logic and argument; *pathos*, the appeal to emotion; and *ethos*, the appeal to authority in the character of the speaker. Richard Lanham offers a contemporary definition: rhetoric as “the science of human attention structures,” (1991), a concept illustrated by Doyle’s characterization of the shaman’s *icaros* as the “linguistic management of psychedelic states.”

Authority in the psychedelic sphere does not depend on advanced degrees or professional standing, though these are not in short supply among psychonauts. Rather their authority comes from evidence of practice, especially self-reflective practice, combined with rhetorical skill. Thus, the authority of John Lilly’s many books comes not only from his medical degree, or from the fact that he received funding for his early LSD research from government agencies. He persuades with passion when he continues his research past the illegalization boundaries. His phenomenological integrity persuades when he is relating not only research results, but his dangerous mistakes, and, from a baseline viewpoint, outlandish alien contacts and other bizarre phenomena. And he persuades (or not) because another psychonaut can read Lilly’s material and know—because of the authority of his or her own self-evidential knowledge—that Lilly is telling it like it is—or is not—for that reader. This does not mean that a report from the psychedelic sphere must totally match my own in every detail. My report of living in San Francisco

would likely differ in many details from the reports of other residents, but we would most likely recognize that we were talking about the same place. This can also be called "inter-subjective validation." Again, Turnbull's characterization of early map-making comes into play. Two explorers to the same area compare notes, logs, and sketches, out of which assemblage, someday maps can be made. Truth is a negotiated, persuaded, and/or recognized truth.

Does the delusion of one visionary ecstatic validate the delusion of another? How many deluded, or illuminated ecstasies does it take to make a reality? PKD²⁰ proved that it only takes one. But two is better" (McKenna in Sutin 1991).

William James' iconic passage about his nitrous oxide experiences, often quoted as an epigraph beginning an article on some psychedelic matter (an indirect example of a form of intersubjective validation), is rhetorically powerful, and will be taken, after his own fashion, as the first extensive "*document humain*," as a text on the topic of methods, and as a text which has programmed the "set" of psychedelic researchers toward their topic on the one hand, and toward their own trips which are rhetorically sensitive to texts.

Nitrous oxide and ether, especially nitrous oxide, when sufficiently diluted with air, stimulate the mystical consciousness in an extraordinary degree. Depth beyond depth of truth seems revealed to the inhaler. This truth fades out, however, or escapes, at the moment of coming to; and if any words remain over in which it seemed to clothe itself, they prove to be the veriest nonsense. Nevertheless, the sense of a profound meaning having been there persists; and I know more than one person who is persuaded that in the nitrous oxide trance we have a genuine metaphysical revelation.

Some years ago I myself made some observations on this aspect of nitrous oxide intoxication, and reported them in print. One conclusion was forced upon my mind at that time, and my impression of its truth has ever since remained unshaken. It is that our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different. We may go through life without suspecting their existence; but apply the requisite stimulus, and at a touch they are there in all their completeness, definite types of mentality which probably somewhere have their field of application and adaptation. No account of the

²⁰ PKD = Philip K. Dick, the science fiction writer and downloadee.

universe in its totality can be final which leaves these other forms of consciousness quite disregarded. How to regard them is the question—for they are so discontinuous with ordinary consciousness. Yet they may determine attitudes though they cannot furnish formulas, and open a region though they fail to give a map. At any rate, they forbid a premature closing of our accounts with reality. Looking back on my own experiences, they all converge towards a kind of insight to which I cannot help ascribing some metaphysical significance. The keynote of it is invariably a reconciliation. It is as if the opposites of the world, whose contradictoriness and conflict make all our difficulties and troubles, were melted into unity. Not only do they, as contrasted species, belong to one and the same genus, but one of the species, the nobler and better one, is itself the genus, and so soaks up and absorbs its opposite into itself. This is a dark saying, I know, when thus expressed in terms of common logic, but I cannot wholly escape from its authority. I feel as if it must mean something, something like what the Hegelian philosophy means, if one could only lay hold of it more clearly. Those who have ears to hear, let them hear; to me the living sense of its reality only comes in the artificial mystic state of mind.”

In the first paragraph, James identifies his personal experience with these substances as the source of his knowledge about them. He speaks with the authority of one who has been there, giving a dose protocol tip: *especially nitrous oxide, when sufficiently diluted with air*. He states the hallmark of ineffability—a standard that he applies to mystical experiences as a whole—a sense of profound meaning experienced to which language is insufficient, even ridiculous. The rest of the long passage illustrates the apophatic device of saying that what you have just asserted cannot be articulated: the depths of meaning in the psychedelic experience.

The second paragraph persuades on many levels. The apodictic nature of the experience is asserted: *One conclusion was forced upon my mind at that time, and my impression of its truth has ever since remained unshaken*. The certainty produced by the experience is persistent despite its ineffability; and that certainty has the effect of holding open, like a foot in a cosmological door, the possibility of uncertainty, the appropriateness of uncertainty, in fact, in the face of the field of unknowing opened by the experiences: *they may determine attitudes though they cannot furnish formulas, and open a region though they fail to give a map. At any rate, they forbid a premature closing of our accounts with reality*. 100 years later, we live in a historical

moment where consciousness itself is not part of the “Everything” covered by the physicist’s “Theory of Everything,” a denial of inner worlds that in James’ time was already in progress. The language is strong: *forced, forbid, unshaken*. The discontinuity of the experience, *How to regard them is the question—for they are so discontinuous with ordinary consciousness*, previews later models of discrete states of consciousness (Tart, Fischer) as well as the use of “alien” by many to describe both the appearances of phenomena and the epistemological rupture which demands re-framing not only of consciousness but of “life, the universe, and everything.” And the heart of the experience is named: *The keynote of it is invariably a reconciliation. It is as if the opposites of the world, whose contradictoriness and conflict make all our difficulties and troubles, were melted into unity. This is the coniunctio oppositorum* of alchemy, the union of opposites, associated with the lapis which is both the beginning and goal of the alchemical process (Jung 1953).²¹ James’ passage persuades at a pervasively seductive level—to invite the reader into the psychedelic experience. The “filmiest of screens” suggests Salome’s dance of the seven veils and resonates with the earlier reference of clothing (inadequately) the presumably naked truth, depth upon depth; the language of *stimulus* and *touch* reinforces this, and the passage tunes the seduction from *the filmiest of screens* to *melted into unity*, the *hierosgamos* or sacred marriage. The seduction promises no

²¹ A similar union is imagined in Nicolescu’s poetic rendering of the “harmony between the levels of perception and the levels of Reality. In the transdisciplinary vision, the classic real/imaginary dichotomy also disappears. We can think of a level of Reality as a fold of all levels of perception; and we can think of a level of perception as being a fold of the totality of levels of Reality. The real is a fold of the imagination and the imagination is a fold of the real. The ancients were right: there is indeed an *imaginatio vera*, a foundational, true, creative, visionary imagination. From fold to fold, we invent ourselves.” Nicolescu, B. (2002). Manifesto of Transdisciplinarity. Albany, State University of New York Press.

less than the dissolution of all our difficulties and troubles. The self-experiment beckons.

Richard Doyle details these connections between rhetoric, sexual selection, and evolution: "Sexual selection is a fundamentally rhetorical domain, a multimedia display of genetic information, and in altering this display new domains of traits, their sorting and combination are opened up to evolutionary change." (Doyle 2010).

The material in [Appendix IV: Contact with the Other: Knowledge Acquisition in the Psychedelic Sphere], details the epistemological methods employed *from within* the psychedelic state.

3.5.1 Research Data: the Alien Downloads

It is a fact of psychonautics that each (self)-explorer (or small group) develops its own protocols, based on the research agenda; the substance used; its legal status at the time; and a wide variety of personal preferences. In the more structured gatherings of three Brazilian syncretic Ayahuasca religions, the Santo Daime, the União do Vegetal, and the Barquinha, each has its own particular rituals, prayers, sequences, and variety of types of sessions: festive, healing, etc. This thesis is concerned primarily with the protocols and reports of individual psychonauts, those who tend to do their serious work alone. Reports can be written—(or spoken and recorded, or painted, or sung...)—during a session, shortly after a session, or long after. Commentaries are made, and commentaries on the commentaries as the experiences accumulate. These psychonautic reports can be, in the face of the unspeakable, extraordinarily prolix.

Those who grasp a piece of the action end up with two things on their plate; the experience and their own idiosyncratic explanation of the experience based on what they have read, seen, and been told. The experience is private, personal, the best part, and ultimately unspeakable. The more you know the quieter you get. The explanation

is another matter and can be attempted. In fact it must be told, for the Logos speaks and we are its tools and its voice....I have my own experience, equally unspeakable, and my explanation, equally prolix (McKenna in Sutin 1991).

Self-reflexivity is a structural feature of this thesis, from the core of the research data, through the layers of exegesis, to the standard of epistemological potency proposed above. The psychedelic session reports, and the commentaries, including any writing dealing with a session or sessions made outside the session proper (but not necessarily outside the aura of a particular session which can stretch for a period of time), I have collectively termed the ADs, standing for "Alien Downloads," a term which requires explanation.

Alien, in this context, is another polysemy, connected to the earlier polysemy of *unspeakability*, a term both connotative and denotative, a locus of meaning which includes the sense of the definitively strange and foreign; the experienced presence of non-physical sentience or entities of various sorts in the psychedelic session as part of a dialogue or multilogue; and a humorous reminder to my baseline self not to get too carried away with the content presented, *carried away* as in *rapture* (where feeling subsumes all rational analysis) or *abduction* (where baseline viewpoints are hijacked by the numinous insistence of the non-ordinary experience.) Maintaining a sense of humor with such deflationary tactics is a subtle rudder in the navigation between worlds, as well as a rhetorical ploy to let the reader know I can still differentiate among worlds, and serves as needed to maintain the proprieties of consensus reality.

Download is my term for a particular psychedelic experience of intense, sudden, concentrated gnosis, a delivery of high-speed compacted information all-at-once that can take years, or a lifetime to unpack. Terence McKenna describes this experience in his afterword, "I Understand Philip K. Dick," to Sutin's selection from Dick's Exegesis (Sutin 1991).

There is an idea that wants to be born, it has wanted to be born for a very long time. And sometimes that longing to be born settles on a person. For no damn good reason. Then you're "it," you become the cheese, and the cheese stands alone. You are illuminated and maddened and lifted up by something great beyond all telling. It wants to be told. It's just that this idea is so damn big that it can't be told, or rather the whole of history is the telling of this idea, the stuttering rambling effort of the sons and daughters of poor old Noah to tell this blinding, reality-shattering, bowel-loosening truth. And Phil had a piece of the action, a major piece of the action."

Dick called this downloading agency ZEBRA or VALIS (Vast Active Living Intelligent System). McKenna most often calls it the voice of the Logos. Each of these downloads of the unspeakable resulted in a highly prolix exegesis and the building of a system of thought. Dick tagged his download experience as "the pink light" and his attempt to decipher, the Exegesis. From the experience and the Exegesis came three of his last novels: *VALIS*, *The Divine Invasion*, and *The Transmigration of Timothy Archer*, each of which wrap Dick himself as character into his own story in a unique way. Terence and Dennis McKenna's download goes under "The Experiment at La Chorrera," and resulted in *Timewave Zero*, a system, including software, embodying a theory of fractal time and the ingression of novelty which grew out of a high-correlative system, the *I Ching*. My own download came in the form of the Glide symbolic system, its fictional story of psychedelic origin, and software writing systems in two and three dimensions for exploring both the psychedelic realm and the linguistic system itself. (Slattery 2009)

[Appendix I, Figure 1.]

The Glide download initiated the creation of a multi-year recorded I have called, tongue-in-cheek, the ADs, detailed in **[Appendix V: The Technoetic Practice, History and Protocols]**. The ADs were recorded in handwritten notebooks from July, 1999, until 2006, when a combination of handwritten and computer-entered documents were used. The hand-written documents have been largely transcribed into digital format, with the incorporated drawings scanned and inserted into the

documents. The intention of the whole has been the exploration in variously altered SOC to unpack the Glide download of July, 1998. The core ideas of this thesis were developed in these sessions; they are the source of the “new knowledge” explored. They are titled with their dates using the format AD_YY.MM.DD. They will be referenced when quoted from a specific AD, set aside in a block quote in italics, in a different font than the body text of the document with the AD number, and the substance involved, following.

Deploying these quotes from the ADs in this text builds a parallel structure by which the points of the thesis, constructed in a baseline perspective, are given counterpoint from the psychedelic sphere. The counterpoint can support, contradict, or modify an argument, description, or explanation without necessarily entering the argument or changing its direction. This process of assemblage of material from different SOC represents the ongoing integration of ideas from multiple levels of Reality.

4 The Psychedelic Landscape

Describing the psychedelic landscape in which the study of the Glide symbolic system evolved requires the development of a vocabulary and a map suitable to the task. This chapter examines a set of concepts—reality, hallucination, perception and dimensionality—that will be used in the more specific discussion of psychedelics and language.

4.1 Reality Reviewed

If you like the experience of having your whole ontological structure disappear out from under you, you'll probably love psychedelics. –Terence McKenna (McKenna 1992)

To argue for what Reality is or isn't, when reality is that standard by which we decide what is and isn't, is a slippery proposition, as circular and self-referential as consciousness it/self.

From the experiential perspective, the technoetic practice from which this thesis derives its data, determinations of *what is real* and *what is reality* are unavoidably value-driven, and result in value-laden statements; these values then frame subsequent arguments in which the terms are used.

the limits of theory models of reality how to establish "what is real?" is this not a fundamental right? the right to say what, for me, is real? (AD_07.01.14 MDMA)

First, the relative value one assigns internal (mental, subjective, personal) states and external (physical, objective, impersonal) states is indicative of the investigator's interest in those states, which become what one engages and studies. As I have argued in the preceding chapters, these dichotomies define an epistemological fault line and are critical in determining the manner in which consciousness, and therefore its altered states, is framed and studied. The "taboo of subjectivity" (Wallace 2000), refers to the position which believes in and values a

transparent and value-free objectivity in which hypotheses can be independently verified or falsified (the truth value) above that of subjectivity. The taboo supports the episteme of science and avoids engagement with the contents of any individual consciousness, purpose-guided, and fraught with values and beliefs.

you can't get too far with understanding consciousness by ignoring the vertical dimension or insisting that we all stay tuned to station normal and punishing those who have strayed into the perceptual wilderness of schizophrenia or magic mushrooms or bodhidharmaland but station normal is madness (try the evening news) which can never really see itself as such from within tv a phantasmagoria without resources war fanaticism hatred revenge greed destruction of biodiversity the deadly sins are all rooted in stupidity station normal is station stupid. (AD_05.11.24 MDMA)

Forms or states of consciousness (the *experiential*) which do not deliver verifiable experiences (which can be tested by repeatable *experimental* results) are not considered reliable methods of attaining truth, even a provisional truth.

having postulated "higher states" as more desirable is to just set up a new "norm" even as its sole inhabitant which is the real trick: how we maintain the illusion of the completely private consciousness and keep a stranglehold on "consensus reality" at the same time? travel among multiple levels of reality walking between worlds (AD_05.11.24 MDMA)

This point is made as well by Dave Boothroyd in his discussion of Henri Michaux, deconstruction, and drugs:

...for Michaux, the loosening of control over thinking's grip on 'reality' which the drug (mescaline in this case) facilitates, engenders, most interestingly, an experience with language. From his perspective, this exposes how what is soberly regarded as the grip on reality can also be seen as the grip of normality (Boothroyd 2006).

One key attribute defining the epistemological gap is the conception of reality as singular or multiple. To posit that reality is something that can be modeled and experienced in multiple ways is to undermine the ground—a singular reality, uniform among scientific observers—upon which scientific observation, experimentation, and verification takes place.

As covered in Chapters 2 and 3, Nicolescu's levels of reality, Tart's discrete altered states of consciousness (dASC), Fischer's perception-hallucination and perception-meditation continua, Roberts' multistate paradigm, Laughlin's monophasic and multiphasic societies and Ascott's three VRs, each posit reality as multiple. Additionally, Timothy Leary's concept of the "reality tunnel" introduces a constructivist view of reality as individually filtered by the totality of our linguistic and social conditioning, and hence multiple (Leary 1979; Leary 2001).

John Lilly gives numerical classifications to levels of consciousness mapped against Gurdjieff's vibrational levels and Buddhist meditational states that generate vastly different realities from the heavenly to the hellish (Lilly 1979). Laughlin, et. al. emphasize the cross-cultural aspect of multiple realities:

As noted earlier, many peoples around the planet conceive of their existence as being lived-out in a world of multiple realities. There are typically three domains of reality, each consisting of one or more discrete realities, which may be related vertically: upper world, normal world, lower world. Experiential access to these domains and constituent realities is generally via discrete phases of consciousness, either available to all or to those who specialize in attaining the requisite phase of consciousness. For example, some traditional Native American groups conceive of what we would call "normal waking consciousness" as that unfortunate phase during which the soul and body are glued together. In alternative phases, like dreaming, the soul is freed from the body so that it can fly and commune with other souls and spirits. What we Western theorists have failed to appreciate is the intimate relationship between attainment of experiences in alternative phases of consciousness and the multiple realities depicted in traditional cosmologies. As we have argued, the reason for this oversight is that we tend toward monophasia and thus to give credence to events arising only in "normal waking consciousness" while discrediting, ignoring, or repressing experiences occurring in other phases of consciousness. Strenuous effort is required of a Western scientist to realize that his concrete view of reality is merely a construct, a set of entrainments, a system of creodes, and thus an impediment placed in the way of comprehending a unitary cosmos in which his cognized environment is only one of many alternative views (Laughlin 1990).

From a contemporary art and technology perspective, critiqued by Roy Ascott, reality is variously mixed, augmented, simulated, artificial, layered, and virtualized (Ascott 2003). The freedom with which these manipulations are carried out is captured by John Perry Barlow in a discussion of virtual reality technology:

I think the effort to create convincing artificial realities will teach us the same humbling lesson about reality which artificial intelligence has taught us about intelligence [...] namely, that we don't know a damned thing about it. I've never been of the cut-and-dried school on your Reality Question. I have a feeling VR will further expose the conceit that 'reality' is a fact. It will provide another reminder of the seamless continuity between the world outside and the world within delivering another major hit to the old fraud of objectivity. 'Real', as Kevin Kelly put it, 'is going to be one of the most relative words we'll have (Barlow 1993).²²

The determination of reality, the answer to the question, "Is that real or unreal?" connects to the two-valued logical determination of truth value, "Is that true or false?" Truth value is dependent on the logical system used. Again, with multiple realities, multiple logics are postulated, as Nicolescu argues (Nicolescu 2002) and Tart suggests with his call for state-specific sciences (Tart 1980).

When you move between worlds, the rules of the game(s) change—the structure of reality changes—how things work changes (AD_01.07.19 MDMA)

John Lilly's protocols tackle the multiple reality problem from a methodological standpoint:

In a scientific exploration of any of the inner realities, I follow the following metaprogrammatic steps:

1. Examine whatever one can of where the new spaces are, what the basic beliefs are to go there.

²² This intertwined social history of the technological move to virtualize reality, and the varied uses of psychedelics by technologists is difficult to write for reasons RU Sirius sums up nicely in a 2006 article reviewing two books on the topic: John Markoff's *What the Dormouse Said: How the 60's Counterculture Shaped the Personal Computer*, and Fred Turner's *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism*. "The connection between the creators of the driving engine of the contemporary global economy, and the countercultural attitudes that were popular among young people during the 1960s and 70s was sort of a given within the cultural milieu we ("High Frontiers/Mondo 2000") found ourselves immersed in as the 1980s spilled into the 90s. Everybody was "experienced.".... But these upcoming designers of the future were not prone towards lots of public hand waving about their "sex, drugs and question authority" roots. After all, most of them were seeking venture capital and they were selling their toys and tools to ordinary Reagan-Bush era consumers. There was little or no percentage in trying to tell the public, "Oh, by the way. All this stuff? This is how the counterculture now plans to change the world" Sirius, R. U. (2006). "Counterculture and the Tech Revolution." Retrieved 1/20, 2010, from [http://www.10zenmonkeys.com/2006/11/19/counterculture-and-the-tech-revolution/..](http://www.10zenmonkeys.com/2006/11/19/counterculture-and-the-tech-revolution/)

2. Take on the basic beliefs of that new area as if true.
3. Go into the area fully aware, in high energy, storing everything, no matter how neutral, how ecstatic, or how painful the experiences become.
4. Come back here, to our best of consensus realities, temporarily shedding those basic beliefs of the new area and taking on those of the investigator impartially dispassionately objectively examining the recorded experiences and data.
5. Test one's current models of this consensus reality.
6. Construct a model that includes this reality and this new one in a more inclusive succinct way. *No matter how painful such revisions of the models are be sure they include both realities.*

Do not worship, revere, or be afraid of any person, group, space, or reality. An investigator, an explorer, has no room for such baggage (Lilly 1977a). [emphasis mine.]

When one is communicating with the Other in the psychedelic sphere, it pays to have protocols. Lilly's protocols are a sophisticated way of managing one's *set* to span multiple worlds, to approach the business of interpretation and model-making with a ruthless (one of Lilly's favorite words) intellectual honesty, maintaining fluidity regarding the taking up and laying aside of entire—if temporary—belief systems. These protocols spring directly from his primary assertion, "*Within the province of the mind, What I believe to be true is true or becomes true, within the limits to be found experientially and experimentally. These limits are further beliefs to be transcended.*"²³

In my own investigations, I have found this protocol difficult to maintain consistently, as creodes (in this sense, developed habits of thinking, feeling, and believing) run deep and novelty takes more work in every sense (pun intended) to come to terms with. But the attempt to attend to what is normally invisible (because I take my basic assumptions about "reality" so much for granted) is a noetic practice (the willing suspension of belief) I find deeply rewarding in the

²³ Lilly's 1975 book, *Simulations of God: The Science of Belief*, treats this topic of belief systems in great detail.

pursuit of knowledge in the psychedelic sphere. This perspective becomes easier to maintain when the occasional trip to other worlds becomes more of a steady commute.²⁴

Lilly's protocol privileges neither the ordinary nor the non-ordinary states of consciousness, but attempts to include both in the construction of a new model of reality of multiple mind-states and multiple realities. Terence McKenna and Lilly both recommend never giving up one's skeptical stance. McKenna is also clear on the necessity of reporting the subjective content. When describing the structure-activity of a psychedelic substance, the language of biochemistry reveals none of the high strangeness of the experiences. Describing the content of a visionary state—the images, environments, narratives, novel space-time configurations, denizens, languages, and information acquired in the experience—is often much less palatable to the scientific world-view.

My approach in the technoetic practice is simply this: to take the phenomenological position of saying what was personally sensed and experienced as accurately as possible, not editing out information just because it strains credulity, invites social ridicule, or demands continual overhaul of my worldview. This effort involves a keen awareness of the forms of unspeakability (detailed in Chapter 1) as they arise in the practice. Part of the phenomenological *epoche* or

²⁴ This touches again on the question of what constitutes "authority" in the psychedelic field. For my own purposes, I differentiate between the armchair traveler, who writes about the territory based solely on the reports of others, never having made the trip him(her)self; the tourist, who goes once or twice and is found in the state of "Oh Wow" and/or declaring authority (like a person who has spent a week in Paris, declaring they know the city intimately); commuters, who have travelled many times; and ex-pats, who have cancelled their citizenship in the default world, and lose their basis and their means of comparison, as Lilly suggests. Permanent or near-permanent residency has its risks, as can be seen in Marcia Moore's experience with ketamine ending in death. Moore, M. and H. Alltounian (1978). Journeys into the Bright World. Rockport, Para Research, Inc. Lilly himself became for a period a resident of the ketamine world, including a close call of near-drowning. Lilly's ketamine addiction is well-documented Lilly, J. C. (1978). The Scientist: A Novel Autobiography. Philadelphia, J.B. Lippincott Company..

bracketing in this effort consists in setting aside the drive to determine the ontological status of the experiences, especially since abstractions such as “reality” can themselves be radically re-configured in the psychedelic sphere. Further, I examine the reports of others, however unsettling, with the same standard, engaging in a comparison of texts, essentially a literary and rhetorical activity. The correlations among texts provide sufficient intrasubjective validation to indicate the possibility that the authors of the reports have spent time in realities sufficiently similar to establish, not a consensus—there are far too few in-depth reports gathered over multiple sessions—but perhaps a set of recognizable landmarks that can form the first sketches of maps of “realities” that include these experiences. This may seem an epistemologically primitive method, when compared to the scientific paradigm, yielding no proofs, no reliably repeatable experiments, and few samples to examine. Yet, as David Turnbull argues, “scientific knowledge can be seen as “the contingent assemblage of local knowledge” (Turnbull 2000) I suggest it is a starting place toward subjective (personal, first person, individual) psychedelic knowledge, building a collection of what Turnbull terms “local knowledges.” These localities can be as particular as a single individual’s three-paragraph trip report posted to Erowid; as extensive as John Lilly’s lifework; or as comprehensive as the collective practices and knowledge of a culture, such as the Mazatec mushroom culture, the Peyote Way, or an ayahuasca culture, such as Santo Daime, União de Vegetal, Barquinha or Shipibo shamanism. Each locus of knowledge, from the individual to the group produces its own accounts of experience in the psychedelic sphere, its own descriptions of the landscapes, its own sense of the intentionality of the voyage

from baseline outwards/inwards²⁵ and the return to ordinary reality. From these experiences descriptions are written, interpretations arise, songs, paintings, software, and dances emanate; rituals are enacted. A body of knowledge collects. Maps can be envisioned, landmark by negotiated landmark.

Waking up in the total alien dreamworld—seeing what one has comfortably called reality and all its rules cheerfully dismantled by a bunch of matter of fact prankster world hackers [gee we thought you'd enjoy it] (AD_01.07.14 2 gm dried Stropharia cubensis)

what reality are you in when the munchkins show you what is clearly the machinery of reality? enfolding unfolding into and out of it/self (AD_09.12.31 4 gm dried amazonas)

4.2 Hallucination

The truth value of a perception is what defines a hallucination in the classical definition of hallucination as a false perception. Hallucination—and mental health in general—is defined relative to a monophasic reality as “A profound distortion in a person's perception of reality, typically accompanied by a powerful sense of reality. An hallucination may be a sensory experience in which a person can see, hear, smell, taste, or feel something that is not there.” (MedTerms 2010). (More subtly, the “thereness” is a deictic signifier—relative to some “here” which is contextual and linked to individual viewpoint. In the case of the hallucination, it is “there” for the hallucinator and “not-there” for the medical observer. This definition of hallucination is typical and highlights the intimately self-referential, systemic connection of perception and reality. One of the many terms for a psychedelic drug is “hallucinogen;” along with psychotomimetic, this term reflects the medical and psychiatric models within which these substances were first examined by Western science. David Nichols, one of the leading scientific researchers in the field of psychedelic science, titles his 2004 survey,

²⁵ Or, in Ascott's expansion of the Hermetic dictum, “As above, so below,”: “as Inward, so Outward.”

"Hallucinogens." In discussing the newer term "entheogens" (manifesting the divine within) which has become the term of choice in the counterculture for many, Nichols admits that "it seems unlikely that this name will ever be accepted in formal scientific circles;" thus he supports the use of "hallucinogen," and the medical model which reifies the association with psychosis, and tends to confine thereby consideration of their uses to a medical framework of disease and cure. While the use of psychedelic medicines in curing has been central to humanity long before Western medicine "discovered" psychedelics, this framing excludes without mention any use of psychedelics for non-medical purposes, such as spiritual development (Schultes, Hoffmann et al. 1992; Andresen 2000), creativity adjuncts (Stafford and Golightly 1967; Lyttle 1999; de Rios and Janiger 2003) or "knowledge acquisition" as I am presenting in this thesis. To answer the question, "Did you hallucinate?" is to be caught in the same pejorative loop as the attempt to answer the question, "Do you still beat your wife?" and the term will be avoided in personal descriptions of psychedelic experience, and retained when used by others as a descriptor.

4.3 Extended Perception

Perception itself, according to the scientific description, can be viewed as a grand illusion where, through an unexplained and wholly mysterious process at the heart of consciousness itself (the binding problem), sensation received by the eyes (and other senses) and multi-mediated through a series of electrical and chemical processes and pathways in the brain, is stitched together seamlessly by the brain/mind and experienced as "out there": a fully convincing wraparound reality which we experience as if we were looking *out through* the eyes (and directing the gaze) which are actually *receiving* instruments. In this light, our experience of the

world, all "reality," is virtual in one sense. Perception can be seen as the invisible interface, an illusion we participate in without a thought about the nature of the mind as projector. The mechanics of this illusion of perception are reliably stable, the projections remarkably consistent—until one alters the biochemistry of the brain/mind.

Eschewing the term "hallucination" necessitates other language for describing the many and varied non-ordinary perceptions experienced in psychedelic experience. "Vision" or "the visionary," aside from privileging the sensory category of sight, brings the connotation of spiritual or mystical visions. While these are definitely one of the types of non-ordinary perception, it again biases the meaning of these perceptions as being of "spiritual" origin in the way "hallucination" biases toward the pathological. I have chosen "extended perception" as a more neutral and inclusive term.

Science has been extending our perceptions with instrumentation, from the very small (electron microscopy, scanning tunneling microscopy) to the very large or far away (optical and radio telescopes; x-ray astronomy) and creating a stunning range of imaging techniques to perceive the inside of a body without invasive techniques (PET and CAT scan; fMRI, ultrasound). One of the assumptions of scientific practice is that the human creator and observer of the instrument is a constant of stably configured senses, which then allows the construction of 'the objective observer,' a fundamental component of the scientific construction both of reality and truth. This necessity to assert the stability of observation predisposes science to characterize reports of chemically extended perception from whatever sources as pathological, delusional, or fraudulent, and therefore, in the main, not Real, in the materialist paradigm.

Alan Watts uses the adjective “sharpening” to describe an aspect of the psychedelic extension of perception:

There is no difference in principle between sharpening perception with an external instrument, such as a microscope, and sharpening it with an internal instrument, such as one of these...drugs. If they are an affront to the dignity of the mind, the microscope is an affront to the dignity of the eye and the telephone to the dignity of the ear. Strictly speaking, these drugs do not impart wisdom at all, any more than the microscope alone gives knowledge. They provide the raw materials of wisdom, and are useful to the extent that the individual can integrate what they reveal into the whole pattern of his behavior and the whole system of his knowledge (Watts 1962).

Psychedelics for some extend perception to the molecular level.

The other way to the Other World, the research project route, was exemplified by George Goodman, who is probably better known as the economist and writer Adam Smith. Goodman signed up for a UCLA project and was told by the director, “You are the astronauts of inner space. You are going deeper into the mind than anyone has gone so far, and you will come back to tell us what you found.” One of the things Goodman found was that he could see all “the basic molecules of the universe. . . all the component parts, little building blocks of DNA.” (Stevens 1998)

Nobel Laureate Kary Mullis claims that his ability to “get down with the molecules” was learned using LSD, which enabled the development of the polymerase chain reaction (PCR), a foundational piece of genetic technology which has enabled DNA cloning for sequencing and the diagnosis of hereditary disease, among other applications. Mullis was no dabbler in the psychedelic realm. He was so impressed by his first (1000 m μ)²⁶ LSD trip that he began creating, with others, new psychedelics in his chemistry lab at Berkeley, staying one step ahead of the scheduling and illegalization process.

A person who loved playing with chemicals as much as I did just couldn't help but be intrigued by LSD. The concept that there existed chemicals with the ability to transform the mind, to open up new windows of perception, fascinated me (Mullis 2000).

²⁶ 1000 m μ is a heroic dose of LSD. However, it is nowhere close to the LD50 of LSD which is 12,000 m μ . LD stands for lethal dose; LD50 is the dose at which 50% of a population who take it would die. In contrast, the LD50 for a 100 pound woman is 5-6 mixed drinks.

The subjective descriptions of altered states of consciousness invariably include reports of perceptions extended beyond the normal state of waking consciousness and the range of baseline sense perceptions. Additionally, perceptions in ASC have been described as exceeding the current categories of sense modalities: perception of the presence of spirits; perception of auras, and the range of phenomena classified as extra-sensory perception (remote viewing, clairvoyance, precognition). The list of modalities described is considerably finer-grained than the classical five senses, and includes internal perceptions of temperature, vibration, balance, and proprioception, to name a few. Perceptions are also altered or extended spontaneously by mental or physical disease (fever, epilepsy, schizophrenia) or by subjective events that come unbidden to a person (ghosts, precognitive incidents, visionary states, hypnogogic states, alien abductions). The description of what is perceived under conditions of extended perception is inevitably shaped by cultural contexts and expectations. Thus the term 'extended perception' is used as an umbrella to cover perceptions which are given a wide variety of names depending on context and content: hallucinations, visions, and *siddhis*, synaesthesias and ESP. Often certain signature perceptions define one's status in a culturally defined altered state, and come to define the landscape of a particular state of consciousness. The shaman's flight, the bliss-body of yogic states, and the rising auditory tones of the DMT flash are three examples of perceptions that function as landmarks in ASC.²⁷

vastness is yours the body trembles everything speaks in waves even these words wave meets wave—the world is formed of light the interference patterns make form of infinite complexity the ocean of life starlight crossing starlight marooned on an island of frozen light (AD_99.11.06 MDMA)

²⁷ This is not to say that these perceptions are always or universally a part of those shamanic, yogic, or psychonautic perceptions.

Laughlin, et. al. give us a model of perception and cognition as parts of a completely integrated process.

. . .the neural systems mediating perception and cognition are intimately integrated and operate on the same basic principle. To a great extent, dividing this complex integration into a simple duality consisting of "perception" and "cognition" is as outmoded as the notion of there being only "five senses." Moreover, the division leads to the very "naïve common sense" conceptions that have hampered Searle; namely that "cognition" is located in the head, and the "object of perception" is out in the world somewhere. . .The object of perception is constructed wholly within the nervous system (Laughlin, 1990 #293).

This is not to portray Laughlin as an idealist; there is a world "out there" for him, but it is, in the Kantian sense, a noumenon, known to humans, and other animals, differently, depending on their perceptual-cognitive equipment. We do not, in his view, experience "the world" as such; rather we live in a "cognized environment."

. . .the principle function of our nervous system is the construction of models of the world. By processing information about the world through these models, the organization directs adaptive evaluation and action in relation to events in the world. As a matter of shorthand, let us call this set of countless models our cognized environment (Laughlin 1990).

Thus, in Laughlin's model, our cognized environment—the sum total of our models—constitutes our reality.

Francis Vaughan's description of enhanced perception links this quality to the noetic, and emphasizes, as does Roland Fischer, the relation between perception and reality.

A most striking feature of my psychedelic experience was the noetic quality of consciousness as it expanded from its usual perceptual range to a vast contextual awareness that recognized the relativity of all perception in space/time. I find the term re-cognize particularly appropriate, since the knowledge that was suddenly revealed to me under LSD seemed to be remembered rather than learned. I was awed by the vast range of consciousness, yet felt that I was simply uncovering what I had always known, i.e. the truth which had previously been hidden behind a veil of relative unconsciousness. As the illusory, changeable nature of ordinary reality became increasingly clear, I also realized how a normally constricted perceptual framework permits one to see only a fraction of reality, inevitably distorted to suit personal projections and presuppositions (Grinspoon 1983).

The spirit(s) of Salvia Divinorum teach in a different manner. Keeping different perceptual and cognitive streams open at the same time (parallel/simultaneous universes) so that I can make “markers” in the mind stream to bring back messages, review a state or insight or perception that is happening differently—this seems part of the skill of navigation, when “skill” in navigating includes learning, at times, to let go of the rudder. Navigational skill is particularly paradoxical when the learning is about letting go of the naming, structuring, valuing, evaluating, and discriminating mind and getting down to the happening itself—sound, movement, light, color, heat, cold, or the flow of blissful bathing in a garden of vibratory delights. Salvia picked me up, bodily—from an initial thought—“we’ve been waiting for you” and danced me into movement—the air again, the fabric of body, environment, mind all one, matched up and consumed in the movements of the moving spirits.

Gesture creating color and multi-dimensional space—every experience—and they flowed by / through quickly and kept changing—was intensely pleasurable, sensuous (AD_01.12.08 Salvia Divinorum, post-session report²⁸)

Roland Fischer uses the metaphor of a revolving stage bringing forth new scenes at different levels of arousal:

Whenever the level of arousal is raised or lowered—when we ourselves become a moving experience—a new stage revolves to the fore and another type of knowledge appropriate to that particular state of consciousness becomes available. The real nature of fiction and the fictitious nature of reality are revealed through these transformations of consciousness (Fischer 1978).

This model was drawn from the Memory Theatre of Giulio Camillo and the Memory System of Giordano Bruno, and makes reference as well to Hesse’s Magic Theatre (Fischer 1977).

²⁸ I have never found it possible to write during a salvia divinorum session; hence, a post-session report.

From the ASC perspective of multiple realities arising from multiple states of consciousness, reality and perception are deeply intertwined in a self-referential manner: reality is what I perceive; what I perceive becomes my reality.

Reality, therefore, is at least in part a personal matter, these are my perceptions I am depending on, just as the doctor depends on his/her perception to determine the “not-there-ness” of a patient’s hallucination. Perception is a complex internal process of multiple interacting systems (visual, auditory, linguistic) that takes information from the sensory systems (both internal and external) and, through reference to sensory, emotional and linguistic memory in a dynamically mutable and complex chemical and neurotransmission space, constructs ‘reality’ on the fly in the experiencing individual. Not only *what* reality is being described but *whose* reality and under what perceptual conditions, cognitive preferences and epistemological bias needs to be considered. Intersubjective sharing through a variety of linguistic means (including body language, sounds, as well as gesture, dance, and more abstract symbolic systems such as natural language, music, and mathematics) creates, along with the default settings of our bodily perceptual equipment (including genetic variations), the scaffolding for a consensus reality. Both VR technology and psychedelic technologies extend perception and reorganize sensory ratios to create new experiences of reality, new epistemological platforms and the conditions for new knowledge acquisition in the fields to which they are applied.

Entering the psychedelic landscape, one becomes an ontological engineer.

4.3.1 Synaesthesia

The literatures that touch on synaesthesias—scientific, art-historical, literary, phenomenological, ethnographic, and psychedelic—vary widely in their definitions, interpretations, and in their degree of comfort with the first-person,

subjective nature of experiential reports. The *significances* given to synaesthetic experiences are similarly wide-ranging.

Sounds seem to affect what I see. I see music; the textures of rhythms and the colors of melodies float before my eyes.. My visual images alter or change whenever I hear a sound or noise...Sight, feeling, motion, texture, thinking, sound—all are one [. . .] The interaction between sight, music, and physical feeling is most remarkable (de Rios and Janiger 2003).

Contemporary neuroscience views synaesthesia as a rare, (perhaps abnormal, perhaps pathological) 'condition' (Cytowic 1995; Marks 2000; Harrison 2001).

Visionary artists such as Blake, Scriabin, Kandinsky, and the French symbolists link synesthetic perception to a spiritual dimension. Ecologist and philosopher David Abram, much of whose thought is based in Merleau-Ponty, the phenomenologist of perception, locates synaesthesia as fundamental to perception and language, both spoken and written.

By perception, we mean the concerted activity of all the body's senses as they function and flourish together. Indeed, if I attend closely to my nonverbal experience of the shifting landscape that surrounds me, I must acknowledge that the so-called separate senses are thoroughly blended with one another, and it is only after the fact that I am able to step back and isolate the specific contributions of my eyes, my ears, and my skin. As soon as I attempt to distinguish the share of any one sense from that of the others, I inevitably sever the full participation of my sensing body with the sensuous terrain. [. . .] Although contemporary neuroscientists study "synaesthesia"—the overlap and blending of the senses—as though it were a rare or pathological experience to which only certain persons are prone (those who report "seeing sounds," "hearing colors," and the like), our primordial, preconceptual experience, as Merleau-Ponty makes evident, is inherently synaesthetic. The intertwining of sensory modalities seems unusual to us only to the extent that we have become estranged from our direct experience (and hence from our primordial contact with the entities and elements that surround us) (Abram 1996).

Abram goes on to quote Merleau-Ponty on synaesthesia and the effects of mescaline:

. . . Synaesthetic perception is the rule, and we are unaware of it only because scientific knowledge shifts the center of gravity of experience, so that we have unlearned how to see, hear, and generally speaking, feel, in order to deduce, from our bodily organization and the world as the *physicist* conceives it, what we are to see, hear, and feel. [. . .] The influence of mescaline, by weakening the attitude of impartiality and surrendering the subject to his vitality, should [if we are correct] favor forms of synaesthetic experience. And indeed, under mescaline, the sound of a

flute gives a bluish-green color, [and] the tick of a metronome, in darkness, is translated as grey patches, the spatial intervals between them corresponding to the intervals of time between the ticks, the size of the patch to the loudness of the tick, and its height to the pitch of the sound Merleau-Ponty in (Abram 1996).

Ethnographic reports of ayahuasca shamanism in the Amazonian rain forest describe the centrality of the *icaros*, the shaman's songs, that guide and create the content of the visionary experience on many levels, calling visual forms and presences into being with sound (and, in turn, hearing the sounds of their three-dimensional visions).

Through his *icaro*, he also calls the rainbow with the whole range of colors that the *boa yakumama* has. He sings the *icaro* of the diamond, the gold, the silver, and of all the precious stones in order to put them on the woman to protect her. . . (Luna and Amaringo 1999).

The ancient wise men, to describe the kaleidoscopic illuminations of their shamanistic nights, drew an analogy between the inside and the outside and formed a word that related the spectrum colors created by the sunshine in the spray of waterfalls and the mists of the morning to their conscious experiences of ecstatic enlightenment: these are the whirlwinds he speaks of, gyrating configurations of iridescent lights that appear to him as he speaks, turned round and round and round himself by the turbulent winds of the spirit (Munn 1973).

Reports of psychedelic synaesthesias link the states of multisensory perception to noetic experience of deep insights into the nature of reality and consciousness, and their profound intertwinement.

The first thing I saw was the 'visible language'! ... The 'elves' appeared. They sang/I saw/read/felt/heard. They are 'made out' of the visible language. The message is conveyed by the medium itself in several simultaneous sensory modalities (Gracie 1985).

A range of contemporary artistic practices, especially in immersive, interactive, electronic media environments, seek to create, or invoke, synaesthesias. The theme of intertwinement is the common ground underlying the discourses of synaesthesia, whatever the variances of episteme, signifying the bewildering richness person to person in experiential reports, whether those reports are quoted in neuroscientific works, the Vaults of Erowid, William Blake's visions, or the

heavenly or hellish trip reports of Aldous Huxley. The psychedelic connections to the creation of and participation in many of these experiences (DJ and VJ culture; Burning Man), and their enabling technologies—such as live performance computer graphics and VR—are common knowledge.

From the sampling of quotes above, it seems clear that under the broad rubric of “synaesthesia” almost any sensory—and/or emotional—and/or cognitive experience can be cross-linked. Neuroscientist Richard Cytowic narrows the definition of synaesthesia to

...the involuntary physical experience of a cross-modal association. That is, the stimulation of one sensory modality reliably causes a perception in one or more different senses. Its phenomenology clearly distinguishes it from metaphor, literary tropes, sound symbolism, and deliberate artistic contrivances that sometimes employ the term “synesthesia” to describe their multisensory joinings (Cytowic 1995).

Cytowic estimates the occurrence of the synaesthetic experience to be statistically rare, one in 25,000. When psychedelics are the testbed of synaesthesias, the occurrence of synaesthesias increases dramatically. It is reasonably common for individuals who take psychedelics to report that their senses become mixed. Given the illicit nature of the topic it is hard to find reliable data on this issue, but a web-based questionnaire conducted by Don DeGracia, found that, of a total of 62 respondents who admitted to using hallucinogenic compounds, 45.9% reported synaesthetic symptoms. Clearly the most common manifestation (over 90%) was to see sounds (deGarcia 1995).

4.3.2 Crystal Vision

A frequent perceptual feature of the psychedelic landscape is what I’ve come to call crystal vision. It is a distinct perceptual “tuning” that can occur with various substances (MDMA, 2C-B, cannabis, psilocybin). As with other affordances of the psychedelic landscape, it can be practiced, strengthened, steadied.

Feel the globe extending, expanded. Expanding. The calm maintains the delicate structure—need the calm to be aware of it—how it permeates awareness while not existing in what is experienced as 3-space. More and more, that “space” is not perceived as “otherwhere” or distanced, or a place to be transported to—by means of awareness—shifting activities—trips of whatever nature, however propelled—but as eternally present, simply to be tuned to. Sense it now as the “crystal vision”—interesting exercise to perceive ordinary space-time and crystal vision at the same time. The brain chemistry alterations shift the focus, that’s all—open the other perceptions. Can of course be overwhelming if one’s touchstones of orientation—identity, objects, space and time as normally perceived, disappear, or seriously morph. The world of crystal vision is far more fluid. One moves by intention (as in remote viewing)—world of crystal vision hovers on the edge of perception—peripheral vision, elusive. Sense the dense dense yet weightless network of fine fibres—filaments—angel hair, mycelial threads of connections. A fineness, a delicacy, and a sense of vast condensation and compaction. Micromovements—mastery thereof—realizing how little effort is required—harder to understand than to perceive—dense networked cloud—sparkles inside. (AD_02.07.20 MDMA)

As with many of the features of the psychedelic landscape, the naming is descriptive of an event, a state of mind, a quality of perception and a metaphor reaching into the complex of associations surrounding things crystalline: crystals as receivers (as in crystal radios); as sites of structured order; as the liquid crystalline structure of DNA; as mathematical objects; as reflectors and refractors of light; as symbols of purity. The connection is made to the state of mind called witness consciousness, a vast-open-clear-transparent-calm-detached and often compassionate viewpoint from which any thought, sensation, feeling can be viewed as it arises and passes, with no attachment.

Also—clear air not just a “not there” but a crystalline substance—invisible—but crystalline—(AD_03.08.23 2.5 gms dried Stropharia cubensis)

“crystal vision” space of clarity—hard to describe—is spatial and an expanding “globe” around physical and “mental” space—can be reached with gestures of hands and arms (AD_02.07.06 MDMA)

Crystal vision was also one of the many “installations” in the psychedelic sphere of what can inadequately be called “devices,” or psychic tools of use in managing the experiences.

tantric exercise—with 3rd eye—psychic surgery. Opened much wider—and installed a good tight door so don't feel like a gaping wound or too big an opening, it has not gone into use yet but will. Connected to crystal vision (AD_02.08.17 MDMA)²⁹

Crystal vision also appeared early, unexpectedly, in between sessions, in a shopping mall.

Something called "crystal vision"—sitting in Food Court of Crossgates—very clear-headed—all the noise and vibes—eyesight changing in a subtle but startling way—there were tons of people, movement, busyness—I could see the whole scene—and the individual parts—all at once. Very interesting. As if "focus" broadened. Happened several more times. Patented effect: "crystal vision" Ho. Ho. (AD_01.12.16-between)

Crystal vision is contentless, something that is seen-with, felt-with, like an invisible lens, or Hokusai's polished mirror.

4.3.3 High Resolution

Perception in the psychedelic landscape can be of a far greater resolution than at baseline: sharper, more detail, higher levels of differentiation and subtlety in the attentional field, whether of color, emotion, sound or cognition. In other words, one perceives orders of magnitude more information in a given moment. High resolution gives rise to perceptions of great complexity. The highest resolution I have experienced is that enabled by DMT, a perception confirmed by other experience reports.

What I saw was of the maximum complexity that a mind could possibly encounter. (M. 2010)

High resolution and density of information go hand in hand. DMT is frequently reported as hyper-real and very high resolution, two qualities that may vary in

²⁹ Benny Shanon describes this category of psychedelic event as a "magic operation." One of his four operations is described: "I was lying down and a colourful weblike drape or mantle was stretched over me, as a spell. One person in charge of the operation and others were watching, making sure that nothing bad would happen to me." Shanon, B. (2002). The Antipodes of the Mind: Charting the Phenomenology of the Ayahuasca Experience. Oxford, Oxford University Press.

direct relation to each other. Whether these subjective reports correlate with the increased connectivity in neurotransmitter receptor-space, a new area of research of biologist Thomas Ray, is suggestive but speculative. Ray states, "DMT activates more receptors more strongly, than any other drug in my study." (Ray 2004; Ray 2010). Whether biochemically or electrically, the psychedelics introduce new configuration of connectivity.

4.3.4 Filaments

A particular visual feature of the landscape is the presence of filamental structures. High resolution reveals networks of flowing, or waving, fine filaments, alive, active, space-filling or space-crossing.

At times the boundaries are represented by lines so thin that it may be impossible to say whether they are black or white. Many observers have stressed the fineness of the lines ...As Moller has pointed out, the "absolute one dimensional" appears to have become a reality (Kluver 1966).³⁰

Filaments are the sensed form of connectivity across multiple domains: energetic, emotional, cognitive. But these divisions of the experience of connectivity and its visualization in the ever-shifting filamental waves is artificial and linguistic.

You are becoming aware of the time-stream contents in new ways—as they fold back on themselves—repeat sequences differently folded—to make new connections—very light and airy—gossamer filaments—releasing mind boundaries lets the connections show—more pieces float into view—what you're trying to model in the display of dataspace—light and filamental—important to model this way because it displays quality of consciousness—the qualitative aspect of cognition—the visual language LiveGlide can display— (AD_03.05.04 MDMA)

Whatever the finest filaments or microfibers one can imagine: angel hair, cotton candy, milkweed, dandelion seeds, mycelium—imagine it finer, weightless, floating.

[Appendix I, Figure 8.]

³⁰ Quoted also in Doyle Doyle, R. (2010). The Ecodelic Hypothesis: Plants, Rhetoric, and the Co-Evolution of the Noosphere, University of Washington Press (in press)..

Silk and silkworms, filamental business again—Chinese of course—who can be so subtle in awareness to observe the silkworm through its life cycle—or was it just collecting empty cocoons—and seeing there was something to unravel—from there to the techne of silk? We are recapitulating that history with media—sensibilities tuned to want higher and higher resolution—filamental resolution, and all that that could bring— (AD_08.10.14 MDA)

Filamental structures are present in the body at many orders of scale. At the heart of every cell is the master filament, DNA, its width measured in nanometers, its length (in the human, were the chromosomal divisions stitched together) about three feet. The macromolecular proteins, the building blocks, are not blocks but long filaments, folding and spiraling into three-dimensional shapes and forming, at the macro scale, the fibrous structures of fascia, muscles, and nerves—the brain, a mycelial form.

The filamental structures can appear at cosmic scales to the psychonaut, similar to the visualization of dark matter spanning galaxies. And the structure of the mushroom mycelium is densely filamental.

all universes, all levels are connected by light, filamental structures—a mycellum out of which reality mushrooms, from time to time...(AD_08.10.14 MDA)

I see mycelial structures in the basic form of the ubiquitous search engines and social networking software that are a staple of our knowledge acquisition and dissemination at baseline. Every search returns a new—always new because always shifting and adding and growing—set of filaments connecting the searcher's quest to their potential grail. Every quest or re-quest weaves the mycelial mat of connections among people and data more densely: articles, rants, images, jokes, status updates, tweets, video, ads, text messages, music, maps and cultural artifacts of every communicable variety. It is Ted Nelson's intertwingulation made manifest. And, of course, those filaments meet, mate, form hyphal knots. Some are fruitful, and a clump of mushrooms springs above the ground, out of the hidden mat.

A primary text for this lifeform is Paul Stamet's *Mycelium Running*. The book begins with a discussion of what Stamets calls the mycelial archetype. He compares the mushroom mycelium with the overlapping information-sharing systems that comprise the Internet, with the networked neurons in the brain, and with a computer model of dark matter in the universe.

[Appendix I, Figure 9.]

All share this densely intertangled filamental structure. Stamets says, "I believe that the mycelium operates at a level of complexity that exceeds the computational powers of our most advanced supercomputers. I see the mycelium as the Earth's natural Internet, a consciousness with which we might be able to communicate" (Stamets 2005).

4.3.5 Hyperconnectivity

Filamental structure is fundamental to the perception of hyperconnectivity in the psychedelic sphere, as well as our telematic world of dense interconnectivity. Roy Ascott offers the term *apophenia* to describe this urge toward connectivity:

Apophenia is the spontaneous perception of connections and the meaningfulness of unrelated phenomena. The term was coined by K. Conrad in 1958 (Ascott 2010).

Ted Nelson uses the term *hypernoia*:

Hypernoia: the belief that everything is, or should be, connected, interconnected, or reconnected. Bringing back together what should never have been separate (Nelson 1993).

Each of these terms has been connected with schizophrenia on the one hand, and creativity on the other. The psychedelic sphere melds these possibilities into its own mix, the valence of which can shift with the *set* of the psychonaut.

The psychedelic perception of our interconnection with the world of nature, the realization that we are part and parcel of this living, densely interconnected,

intensely intercommunicating web of life is at the heart of many ayahuasca and psilocybin experiences, especially when undertaken in a natural setting.

The "ecodelic hypothesis," detailed by Rich Doyle, and inspired by his ayahuasca experiences in Peru, outlines the crucial nature of these insights for our survival as a species.

The future of Gaian biodiversity and a modicum of global stability appears to depend precisely on a thoroughgoing and practiced re-articulation of human autonomy in the experience of imbrication with global ecosystems, including capital and information flows as well as the carbon cycle. In short, in order to alter what we do, we must "re-engineer" and re-imagine who we are. And across the life and climate sciences, the news is this: You are deeply implicated in the global ecosystem in ways scientific and technical practices are only beginning to comprehend (Doyle 2010).

Artist and xenolinguist Allyson Grey describes the filamental energetic interconnections thus:

In 1976 during an LSD trip with my husband, Alex, I experienced my body turning into infinite strands of light that were both a fountain and a drain. As I lay meditating next to Alex, I could see that he too had been revealed as a fountain and drain, individual and distinct but connected to my "energy unit". I realized that all beings and things were "blowing off" and "sucking in" pure energy in an infinite field of confluent effluences. The energy was love, the unifying force. This changed both of our artwork as we felt that we had witnessed to the most important thing: a revelation of the grid upon which the fabric of our material reality is draped. Sometime thereafter, I read a quote describing the Jewel Net of Indra. In the abode of Indra, the Hindu God of Space, there is a net that stretches infinitely in all directions. At every intersection of the net there is a jewel so highly polished and perfect that it reflects every other jewel in the net. This description related powerfully to the revelation that we had received while in our altered state. It has been my continuing intention to point to this experience in my artwork (Grey 2010).

[Appendix I, Figures 10 and 11]

In many sessions, I record what has become a stable feature of my psychedelic landscape: the sense in the initial warp, the "rising," of the brain-mind "lighting up" with a great increase in connections.

*mind like burlap weave serviceable rising rising mind layers of fine silk gauze breeze
carry potatoes clothe a concubine (AD_03.05.14 MDMA)*

This maps to Winkelman's neurophysiological description of the increase of connectivity experienced as the cortex connects with the older parts of the brain, and the hemispheres of the brain go into sync.

Sudden huge launch—pause for dense connections being established dense fine mesh at molecular level neuronal level and out beyond—only a model—metaphoric simultaneity keep languaging though the form is its own perception of language—dense hyperdimensional web—incredibly intricate—dense in signalings—retune retune to the reverberation of the whole—ready for this now (AD_02.04.21 MDMA)

I experience this as a bursting (or flowing) out of the confines of the self-conception of a solitary, isolated, individual ego into a mindstate that reveals, and enables, a massive connectivity—with the whole of the biosphere, with the Others, and among my many selves. The sense is of a connectivity that produces a different sort of intelligence—I am both far more connected to the contents of my personal thoughts, feelings, and memories, but more profoundly, to a far broader field of sentience, intelligence, and knowledge in which I can potentially access new knowledge, and to which I contribute whatever I have to offer, as a conscious entity. *An I-Thou relationship with an informational field*, as teafaerie said. This level of connectivity is the ground for many forms of ecstasy: cognitive—the orgasmic *aha!* —; body-bliss; emotional opening to trust and love; and the re-union with the seething liveliness of the web of biological forms with which our body-minds are intimately entangled.

4.3.6 Hyperconductivity

I experience hyperconductivity in connection with hyperconnectivity as an increase in the speed of thought, where 'thought' refers to the whole of the contents of consciousness. Not only are there more connections but the flow among the connections, along the filaments, appears faster and more frictionless than at baseline.

speed of brain/mind connectivity and conductivity vastly faster than current use with natural language processing. New language necessary to take the brakes off—getting outside of words (abandoning the alphabet) (AD_03.06.07 MDMA)

This perception of hyperconductivity maps, at least metaphorically, to descriptions of superconductivity (or superfluidity). Physicist Mae Wan Ho's speculations regarding high (body) temperature coherence phenomena in biological systems and the liquid crystalline structures of collagen which constitute the majority of the connective tissue throughout the body are suggestive, though beyond the scope of this thesis, and my own layperson's understanding of the physical issues proposed (Ho 1998).

The discussion of extended perception is further expanded in [**Appendix VI: Extended Perception as Alien Art**].

4.4 Dimensionality

The intent of this section is to lay the conceptual groundwork for the discussion of the experience of multidimensional linguistic phenomena in the psychedelic sphere in Chapter 6, Xenolinguistics, and more specifically, for the description of the Glide symbolic system as a multidimensional construct.

Changes in perception of time, space, and dimensionality are frequently reported in the psychedelic sphere, with the words "multidimensional" and "hyperdimensional" used, without definition, in experience reports, such as this Salvia Divinorum report from the Vaults of Erowid.

Immediately after exhaling I felt an extremely powerful shift in consciousness and perception. Shift is an understatement.

It was more like being launched off into multidimensional perception without a chance to even say goodbye to reality as I know it. I have found smoking extract (when smoked properly) to be like that for me. No time for goodbyes.

As this was way more powerful than what I intended, I immediately got up and started walking around. Walking around was quite strange in this 'altered state'. I felt

a desire to laugh hysterically, but remembered reading that a shaman said not to do this, and quickly silenced it. My visual perception was difficult to describe, as it was very multidimensional and familiar. It is similar to being in a dream, some other dimension where 3rd dimensional perception and laws do not apply, but being as lucid, even more awake and lucid than I am in normal 3rd dimension (Alhim).

A mushroom report from Erowid states

I was a multidimensional being existing on multiple planes of consciousness at once. The shrooms freed my consciousness so I could see the different levels of myself. I had to remember which plane of existence I freed my consciousness at. The concept of me I or mine became very foreign. (Chris 2000)

I am convinced that those intricate folding and unfolding and emerging out of themselves multidimensional constructs are visualizations of actual chemical processes consciousness is not an emergent phenomenon that describes human experience (how chauvinistic how naïve similar to having the entire universe revolved around this tiny planet) but rather the all-pervasive, multidimensional substrate of existence in all its multitudinous forms (AD_07.04.18 Cannabis)

seeing the details learning the characteristics of a multidimensional visual space-in-motion imagining space curving and distorting with forces internal to itself—energy patterns that then shape the forms (AD_05.03.30 2-CB)

4.4.1 The Dimensions of Dimension

All of us sooner or later in our lives, have had the bitter experience that it is extremely difficult, perhaps impossible, to squeeze oneself into the fourth dimension. However, every point of our three-dimensional space is an open door to the entry into the fourth dimension, but no matter how much we stretch and twist, we remain stuck in the all-too-well-known three dimensions. –Heinz von Foerster (2003)

Dimension, in various dictionaries, first points to measurement or “magnitude measured in a particular direction” and second to “scope, importance, or aspect.”

Thomas Banchoff fills out these definitions:

The word dimension is used in many ways in ordinary speech, and it has several technical definitions. When we refer to a ‘new dimension,’ it almost always means that we are measuring some phenomenon along a new direction. (Banchoff 1996)

Constructing geometrical dimensions, whether in the mind’s eye, drawings, or computer visualizations, can provide considerable mental exercise as the dimensions increase. The thought-experiments of Abbott, in which a Flatlander, a two-dimensional creature, encounters a three-dimensional stranger from Space, are classic comparisons of the view from different dimensions (Abbott 2008). Charles

Howard Hinton performed almost impossible feats of visualization, first of a cubic yard of one-inch cubes, assigning a two-word Latin name to each of the 46,656 units. He taught himself to view the construction from any of its possible orientations, an exercise he called a "casting out of the self."

He used his "solid paper" to construct for himself the various cubical cross-sections of the hypercube or tesseract (a word Hinton may have coined himself), assigning a different color to each of the 81 parts (1 tesseract + 8 cubes + 24 squares + 32 line segments + 16 points) of a tesseract to keep things straight. By working with these cross-sections he was able to visualize the reality of the fact that if a tesseract is pushed through our space, turned over, and pushed back through, then the last cubical cross-section seen will be the mirror image of the last seen the first time through (Rucker 1980).

Rucker uses a retinal image to describe how hyperspace philosopher Charles Howard Hinton's "seemingly insane idea" (memorizing a cubic yard of one-inch cubes) was used to visualize the fourth dimension.

...what he had in effect done was to create within his mind the kind of "three-dimensional retina" that a 4-D being would have." . . . Now Hinton could, without difficulty, visualize all the cross sections of a hypercube (Rucker 1984).

Heinz von Foerster's 1970-1971 experiment at the Biological Computing Laboratory for apprehending the fourth dimension is unique, and years ahead of its time in pushing the edge of computer graphics, combining four-dimensional geometry, stereoscopic vision, and joystick manipulation of objects on the screen. The experiment concerned knowledge acquisition as a partnership between "Sensorium and Motorium," i.e. embodied knowledge, and not an attempt to penetrate the fourth dimension for its own sake. The fourth dimension was chosen as the knowledge to be acquired because there was no chance that any subjects would have attempted such knowledge before the experiment. By allowing the physical "grasping" of the visual object, where one hand coordinated movement on three axes in the 3rd dimension, while the other similarly controlled three axes

of movement in the 4th dimension, subjects were able to intuitively figure out that the strange succession of transforming 3D objects they were seeing (with 3D glasses) were cross-sections of a single 4D object. (von Foerster 2003)

[Appendix II, Item 1.]

In each author's description of inter-dimensional advances, a similar 'move' on the dimensional ladder is made. The move is described as orthogonal, at right angles to, i.e. *a move in a direction not contained in the dimensions one is moving beyond.* If you move a point (zero dimensions) in a direction not contained in itself, and leave a trace (a writing) of that motion, you generate a line. If you move a line (one dimension) in a direction not contained in itself, you generate a plane (two dimensions). If you move a plane (two dimensions) in a direction not contained in itself, you generate a cube (three dimensions.) With the visualization of movement, time has entered into the creation of new spatial dimensions—and writing as well, in a generalized form.

These moves can be easily visualized or drawn on a piece of paper. But a strange thing happens when one tries to visualize the fourth dimension. What, in the three dimensional world we live in, corresponds to the direction not contained in itself that points the way out of the third to the fourth? As Spacelanders, we find this frustrating.

the passage from inorganic to organic life so-called could be a phase transition of consciousness the zone of passage so difficult to imagine with certainty perhaps because of the mystery of phase transitions themselves. Viewing this borderland seems to be the quandary of imagining the "reality" of the in between area is it is some way like trying to zoom in on the infinite boundary of the Mandelbrot set a description and set of perceptions (from the math of the computer graphics once again) that again is tied in the unbreakable circle the second-order cybernetic system if you will of perception reflection and projection in the Dome of consciousness (AD_06.02.03 cannabis)

Thomas Banchoff talks about the analogical process of understanding as applied in geometry, calling it “the dominant idea in the history of the concept of dimensions.”

A thread that runs through all considerations of dimensions is the attempt to use insight obtained in one dimension to understand the next. We use this process automatically as we walk around an object or a structure, accumulating sequences of two-dimensional images on our retinas from which we infer properties of the three-dimensional object causing the images. Thinking about different dimensions can make us much more conscious of what it means to see an object, not just as a sequence of images but rather as a form, an ideal object in the mind. We can then begin to turn this imaging faculty to the study of objects that require even more exploration before we can understand them, objects that cannot be built in ordinary space (Banchoff 1996).

It is exactly this seeming limit of visualization, this effort to see the unseen, that came to the forefront in mathematics, science, art, and spiritualism in the latter part of the 19th and the first part of the 20th century, a history documented from the art-historical perspective by Linda Henderson in her study, *The Fourth Dimension and Non-Euclidean Geometry in Modern Art*. Henderson centers on “the idea promulgated by Hinton and many others that space might possess a higher, unseen fourth dimension.” The fourth dimension became a nexus for generative analogy, a means of reaching for an understanding of the unseen, and expressing the difficulty of the reach. For a period of time, the worlds of ideas of scientists and mathematicians; spiritualists and theosophists; and artists and psychologists cross-fertilized at the juncture of the seen and the unseen, the known and the unknown. Out of this ferment came the revolutions of modernism. The unseen world pressed at the borders of the comfortable zone of realities that could be sensed and measured, whose dimensions could be known, pointed to, and shared. Cubism’s geometries; surrealism’s unconscious automaticities; the quantum description of a physical reality flickering in and out of existence; the Freudian and Jungian unconscious; an expanding universe whose borders leap further and further

beyond the reach of observation—to name a few of the chasms that opened in knowledge in the first third of the 20th century—all brought with them descriptions, or versions of ‘the real’ as embedded in and/or emerging from some unseen and largely unknowable ground.

The situation with respect to the ratio of unknown to known, at the beginning of the 21st century, is worsening dramatically, with the hypotheses of dark matter and dark energy (the galactic unconscious). At the same time the Enlightenment-style search a Theory of Everything, casting the Light of Reason into this further darkness and mystery, continues, one is tempted to observe, in a spirit of desperate denial.

The question persists: what makes the visualization of the fourth dimension both so tantalizing and so difficult? The jump to visualizing the fourth from the third dimension may first be a factor of our sensory equipment. The body, viewed from outside, is a three-dimensional object in a three-dimensional world. But how did the world—and our bodies within it—come to be defined in step-wise numbered dimensions? Binocular vision, combining two two-dimensional retinal images to result in a perception of depth is a primary factor in our experience of space. Binaural hearing gives us a volumetric sense of sound location. These affordances enable our navigation in space, and later, our abstract conceptions—including geometries—about space. What kind of spatial conceptions and geometries we might have invented if we were endowed with the multi-faceted, domed eyes of a fly can only be imagined. But that is to try to find the answer in the zone of the sense-able, by means of the senses.

In his 1949—1953 work, *The Ever-Present Origin*, Swiss philosopher Jean Gebser presents a history and a model of the evolution of consciousness through five stages. The final stage, which he names the integral, has the dimension four, is

characterized by an aperspectival “viewpoint”; is space-free and time-free; and has the quality of diaphenety or transparency. The *diaphainon* is a complex concept, meant in part to convey a “shining through” that reveals the wholeness of a given form. Gebser follows directly on the path of Gauss’ non-Euclidean geometry:

And the concept of a non-Euclidean geometry in turn is an anticipation, again imaginarily, of the later-realized sphere which is non-fixed, four-dimensional, and free of perspective (i.e. aperspectival) because it is a moving as well as transparent sphere....The simple sphere is merely three-dimensional; only the moving, transparent sphere is four dimensional. And only the transparency guarantees the aperspectival perception (Gebser 1984).

This description of diaphaneity resonates with the earlier description of crystal vision. The term “aperspectival” recalls Hinton’s attempt to transcend the individual perspective in his techniques for visualizing the fourth dimension.

The connection to the concept of higher dimensionality as a feature of the evolution of consciousness is a psychedelic theme. Something—the fourth dimension—had been described, a something that was a logical step in thinking, once a higher-dimensional geometry was conceived, and a step as simple in numerical terms as counting—1, 2, 3, 4. Yet a stubborn boundary was marked—easily crossed by logic (once the initial adventurers scouted the territory) but seemingly impossible to cross by perception (internal or external) until psychonauts began to report that multidimensionality is a matter of perturbing the state of one’s brain chemistry, and thereby retuning perception. New dimensions, in every sense of the word, come into view.

4.4.2 Fractal Dimensions

The topic of dimension complexified with Benoit Mandelbrot’s introduction of fractal geometry. As he acknowledges, the mathematics (Cantor, Peano, Koch, Hausdorff and their ‘monster’ sets) goes back to the same period in the 19th and early 20th century in which the fourth dimension was popularized, but the key

ideas of “in-betweenness” he traces much earlier. “Several basic ideas of fractals might be viewed as the mathematical and scientific implementation of loose but potent ideas that date back to Aristotle and Leibnitz.” Mandelbrot quotes from a 1695 letter of Leibnitz’:

One can ask what would be a differential having as its exponent a fraction. You see that the result can be expressed by an infinite series. Although this seems removed from Geometry, which does not yet know of such fractional exponents, it appears that one day these paradoxes will yield useful consequences, since there is hardly a paradox without utility. Thoughts that mattered little in themselves may give occasion to more beautiful ones (Mandelbrot 1983).

Mandelbrot discusses Leibnitz’ deep belief in the “principle of continuity” or of “plenitude.” Mandelbrot cites Aristotle’s intuition about the continuity of living species, and his fascination with chimeras, the “in-between” animals, and draws the comparison to the mathematical chimeras “in-between dimensions” produced by Cantor, et. al.

When the whole structure appears—reminds me of sephirot endlessly repeated—sephirot fractally multiplied, nested, connected—multidimensional object—shaping space perception—(as in knot space) where the fundamental domain causes reflections and reverberations viewed from 3-space (AD_03.06.07 MDMA)

The ability to compute and visualize these dimensions with computer graphics brought an esoteric field of mathematics into broad awareness through the endless variety and beauty of the forms. To some, Mandelbrot has located the “fourth” dimension in the infinite interstices of the Euclidean 0—3 dimensions.

[Appendix I, Figure 16 and 17.]

This principle of continuity can be grasped immediately when one takes a “fractal dive” zooming into the depths of scale of the Mandelbrot set, spaces whose geographies are as strange as a psychedelic vision and as familiar as the forms of our natural world.

Mandelbrot reviews the questioning of the classical concept of dimension that began with Riemann in 1854; even more fundamentally, he forever destabilizes the concept—and the act—of measurement itself in his analysis of the problem of determining the length of the coastline of Great Britain. Measurement is seen to be strictly observer-dependent and the results of that measurement highly variable depending on the choices of the observer as to the scale of the measurement undertaken. As explained by John Briggs and F. David Peat,

Mandelbrot has gone so far as to say he thinks that when his fractal geometry highlights the inextricable relationship between object and observer it is in keeping with the other great scientific discoveries in this century, relativity and quantum theory, which also found an interdependence between observer and observed. The quantitative measure—on which science has been based—is also challenged by this insight (Briggs 1990).

Fractal forms are ubiquitous in nature, and may, according to N. C. Kenkel, prove to be “a unifying theme in biology.”

Biologists have traditionally modeled nature using Euclidean representations of natural objects or series. Examples include the representation of heart rates as sine waves, conifer trees as cones, animal habitats as simple areas, and cell membranes as curves or simple surfaces. Biological systems and processes are typically characterized by many levels of substructures, with the same general pattern being repeated in an ever-decreasing cascade. . . The importance of fractal scaling has been recognized at virtually every level of biological organization (Kenkel 1996).

Kenkel’s diagram brings together transcalar instances of fractality in both the biotic and abiotic domains.

[Appendix I, Figure 18.]

“Fractal” is a common descriptor in psychedelic experience reports, and a visual cliché in much of what is termed “psychedelic art,” especially in the live-performance light shows of dance events.

Howard, a high school senior at the time of the experience, reports a direct apprehension in the psychedelic state of this general transcalar construction of reality as fractal.

During the stretching into eternity feelings I would have a sensation like my concept of reality was zooming in and out, from the microscopic to the universal. At some points it would feel like I was looking at the entirety of existence, and it appeared to be a huge swirling fractal. It was more like a 3 dimensional fractal, but thinking back on it now the closest thing I can equate it to is the 2d fractal images that are popular with psychedelic users. All the 'pixels' (or points) of this fractal were moments in time and they were all swirled together in some huge mess which did not make sense in the linear concept of time, but I had a sense that it all fit in some way that was beyond my comprehension and was deeper and more meaningful than linear time or spatial relationships. Throughout this whole experience I had an overwhelming feeling that what I was experiencing was more real than anything I had ever experienced before, and to this day I am convinced that outside my narrow concept of reality, this is what exists and awaits me (when I die for instance). In fact I had a vague sensation that within the webwork of this fractal were all the lives I had ever lived as well as all the lives I would ever live. It also seemed like everything that existed was represented within this incomprehensible swirling fractal (Howard 2003).

This vision of transcalar fractality will be met again in the description of the McKenna brothers' fractal construction of time in the Timewave Zero system in Chapter 6, "Xenolinguistics."

5 Neurophenomenological Perspectives on Language

Any model of the brain/mind that does *not* reconcile the observations of neurobiology with the fact of the psychedelic state, as it experienced, is doomed to remain scientifically incomplete and philosophically unsatisfying. Psychedelic drugs have always been and remain the most useful molecular probes available to science for exploring the relationship between the subjective experience of mind and neurobiological processes. Given the validity of this statement—and I suggest that no neuroscientist with personal knowledge of the psychedelic state would contest it—one cannot fail to be puzzled by science’s curious neglect of psychedelic research over the last two decades. –Dennis McKenna (McKenna and McKenna 1993a).

To reach the zone of the novel linguistic phenomena in the psychedelic sphere, we will travel by way of a common ground, our neurophysiological makeup, which includes our given-at-birth, and developed-through-enculturalization, linguistic abilities.

5.1 The Symbol and the Symbolic Process: Laughlin, McManus, D’Aquili

Laughlin, McManus, and d’Aquili’s work³¹ on the symbolic process, presents a neurophenomenological model that treats the symbol on a gradient scale from the neurognostic basics of pattern recognition up through the existence of natural language and further to formal sign systems (such as mathematics). These concepts, especially as they deal with the role of the symbol in ASC, will be helpful in understanding the narrower field of specifically psychedelic perception and reality, in the process of building a picture of linguistic phenomena in the psychedelic sphere. Their model offers a means for incorporating the alien aspect of language in the psychedelic sphere into a continuum of symbolic evolution throughout nature, which includes the human being, and our forms of symbolic

³¹ Hereinafter referred to as “Laughlin,” for stylistic simplicity.

processes, still under active development. The following sub-sections develop the vocabulary used in their model, and relate these terms to experience reports, where applicable.

5.1.1 Conscious Network

The totality of the neurological systems involved in consciousness—including the full range from what at any given moment is “unconscious” to the content of current awareness is termed in Laughlin “conscious network.”

Conscious network is the system of entrainments mediating the entirety of consciousness: the sensorium is the subsystem within conscious network mediating phenomenal experience. Of course, structures other than those mediating direct sensory experience are operative within consciousness: the intentional processes we will discuss shortly, and well as those structures mediating motor activities and intuitive functions, which may or may not be relevant to sensorial operations. Sensorial activities include verbalized thoughts, percepts in all sensory modes, affective feelings, imagination, and the like (Laughlin 1990).

5.1.2 The Sensorium

The physical description of the world would change radically if we could observe more things.

—Brian Josephson, Nobel Laureate, Physics, 1973

The sensorium in Laughlin is similar to what is “onstage” at any moment in Baars’ “Theater of Consciousness” (Baars 1997).

The sensorium is the functional space within the nervous system wherein the phenomenal aspects of the cognized environment are constituted and portrayed in moment-to-moment experience. The sensorium, a time-honored term in science and medicine (Newton used the term in the eighteenth century!) usually refers to the “whole sensory apparatus of the body” Phenomenal reality is thus in part an entrainment of cognitive and sensorial networks, which is designed to portray an unfolding world of experience to the organism. The functional space within which association and perception are combined into unitary phenomenal experience is the sensorium (Laughlin 1990).

The sensorium is the site of experience. Psychedelic experience fills the sensorium with percepts not available in a baseline state: increased dimensionality in the perception of space; time compression or dilation; hyper-connectivity across domains of experience; hyper-conductivity and speed of thought; colors, sounds,

forms only perceptible in these states of extended perception; and non-local access to knowledge, to name a few. We become aware that baseline experience is only one phase of experience, and that, to understate the case, the psychedelic experience brings forth in the sensorium “more things to observe.”

5.1.3 The Primary Units of Experience: Dots

The notion of “dots” as the primary unit of experience is considerably more nuanced, and derived from the experience of “mature contemplatives,” (including Laughlin’s own years-long practice of Tibetan Buddhist ritual and meditation). Hindu philosophy, and Western philosophy from Leibnitz to Whitehead are also referenced.

The at times extreme alterations in perception in the psychedelic landscape can include many varieties of transformation of the baseline perceptual field, where “normal” reality begins to waver, shift, and dissolve, sometimes into “dots.”

I saw some faint blue dots scattered in with the normal dark red blobs and as my eyes adjusted, the blue dots stopped being random, grew in brightness and formed a circle. Then inside the circle, another circle of dots formed and so on making the appearance of a tunnel. Next thing I know my perspective starts accelerating down the “tunnel” and the blues change to yellow and finally, as I think I need to take a breath, turns white. I open my eyes and exhale. The room looks normal.

I take another hit, cover my eyes, relax my mind and defocus my vision. The dots coalesce again, and form the same tunnel. I am distracted for a moment and a face pops into my head, but then I concentrate on the trip into the tunnel, and I see the face painted like a texture onto one row of the dots. The next hit of nitrous and I am open minded and focused on the vision. It happens faster this time, and I am down the tunnel to the white dots. [5-MeO-DALT, Methylone & Nitrous Oxide] (Cup 2004)

This was a white void with an infinity of swarming black dots. . .[LSD] (hiab-x 1992)

I was at home in my apartment looking ahead in the living room when I noticed small black dots. The dots were everywhere there was empty space (air). [A. muscaria, P. cubensis & Calea zacatechichi]³² (norman 2003)

³² It should be noted, in the interests of harm reduction, that the quotes above that come from multi-drug trips were experienced as “bad trips” with the cause laid to the combination of drugs. The experiencers state strongly that these combinations are not to be recommended.

The notion of “dots” is not necessarily to be taken literally; it is applied to more than the visual sensory mode.

There is another feature of sensorial activity that is elusive and contradictory to naïve introspection. This feature is one of the many reasons that evidence derived from introspection by trained, mature contemplatives is essential to a modern theory of consciousness. It is readily apparent to the mature contemplative that experience arising within the sensorium is composed of innumerable, almost infinitesimal and momentary particles. This field of particles passes through consciousness in epochs (“waves,” “frames,” “heaps,” “chunks,” etc.), an intermittence that may correlate with cortical alpha rhythms. Most people miss these tides of particles because they are simply not interested in, nor are they trained to concentrate upon, the mechanisms of their own perception—as it were, to perform a “phenomenological reduction.” But with training, it is easy to become aware of the activity of these tiny and momentary sensory events, given the requisite calm and concentration. They are directly perceivable in all sensory modes and are readily confirmed as the building blocks of objects and movements in the visual field. Labeling these particles of experience after their visual forms, we will call them sensorial dots (Laughlin 1990).

A prominent instance of fields of “dots” in combination with “waves” can be seen in the iconography of the Australian aboriginal depictions of the rainbow serpent.

[Appendix I, Figures 19, 20, 21.]

These figures of the Rainbow Serpent’s dots and waves have also appeared in my own drawings in ASC. The Rainbow Serpent as the underlying energy of the Glide symbolic system will be elaborated in Chapter 6, “Xenolinguistics.”

[Appendix I, Figure 22.]

Dots and waves can also be seen in the table relating forms in rock art with Kluver’s form constants.

[Appendix I, Figure 12.]

The experience of intermittent “frames” mentioned by Laughlin is a perceptual experience for some in the psychedelic sphere, and seems to be related to the experience of time dilation.

We were working our way across the park and time practically came to a screeching halt. I could almost see the very fabric of time ripple as some force just slammed into it, slowing it down drastically. The walk from the river bank to the flat land was like

an effort against time. . . I was seeing in frames and could see in every direction even though I was not looking in that direction. Frame vision is kind of like being in a room with a strobe light only the frames seem to “tail” each other. My vision also zoomed in at about a 30’ area that was far in front of me. It zoomed in to that over the space of one frame. [Cannabis] (Skullman 2005)

Renwick, below, interprets the phenomenon of “frames” as a slowdown of visual processing in the brain.

At higher doses Ketamine’s ability to slow down the speed at which the brain processes visual information becomes even more interesting. Where low doses seem to make everything appear as if your vision was broken up into frames, high doses seem to blur visual phenomena together in an odd way. [Ketamine] (Renwick 2002)

Continuing with Laughlin,

The sensorium is a dot-filled “field of perception”³³ which is perceptually and cognitively distinguished into sensory modes and within sensory modes into distinct forms and events. The basic act of perception is the abstraction and reinforcement of invariant features in the unfolding field of dots. . . It is the job of the cognized environment to portray an internalized world of phenomena by ordering dots into recognizable configurations. There are, however, phases of consciousness attained in mature contemplation during which the entire sensorium is experienced as a single monad (either bounded or unbounded, finite or infinite), where the distinction between the different fields of dots constituting various sensory modalities merge into a unified, singular field (the *coincidentia oppositorum*). During this experience consciousness becomes indistinguishable from the sensorial monad, the sensorial monad indistinguishable from consciousness. . . Conscious experience at this point verges upon totality, a phenomenally undifferentiated, timeless, and infinite monad of awareness in which the unfolding energy events play themselves out without hindrance and with the experience of complete flow. Totality and flow are, in fact, the two qualities *sine qua non* of all higher phases of consciousness. . . What we want to make clear now is that all phenomena—no matter how intensely experienced, no matter in what phase of consciousness experienced, no matter in what combination of sensory modes experienced, no matter how peripheral or central to awareness, no matter how momentary or enduring, and no matter whether of self or of the world—all phenomena are composites consisting of swarms of dots appearing and disappearing within the sensorium. That is to say, the myriad sensorial dots occur entirely within the nervous system of the perceiver and are produced by networks of neural cells (Laughlin 1990).

It is this “abstraction and reinforcement of invariant features in the unfolding field of dots” (the “field of perception”) that is at the core of symbol recognition and modeling: the symbolic process. In this sense, perception and the symbolic process go “all the way down” to the dots, the “primary units of experience.”

³³ Laughlin takes this term from Husserl, *Cartesian Meditations*.

My vision is being affected as well. I have a very grainy field of vision, as if everything was made up of tiny hyper vibrational particles that I could actually see in motion, like watching a swarm of gnats in a way. [4-Acetoxy-MiPT with prior ephedrine and cannabis] (Rivers 2005)

The next experience quote finds particles in a sonic-bioenergetic field of experience.

Force-fields, thin clear beams like lasers of sound, smooth crests, clouds of particulate sounds like swarms of electron bees, echoes of fractal complexity, resonating soundscapes made of smaller versions of themselves, forming larger than life cathedrals of transient sound structures in flux. It was sort of an Ethernet for intercommunication among vastly variegated life forms from all over the galaxy. [LSA] (Justin 2006)

Laughlin further elucidates the concept of “dot” as a “descriptive empirical category and not a theoretical one like a black hole or a quark.” He relates it to the Hindu concept of the bindu, a Sanskrit term meaning “dot” or “drop,” which is the elemental particle of prana, the fundamental energy of the universe. The dot is also connected to the monadologies of Leibnitz, Kant, Husserl, and in the case of Whitehead’s formulation of “actual entity,” it stands as a point of consciousness. In making these correlations, Laughlin connects the “dots,” the primary units of experience, to consciousness. In this sense, consciousness, too, “goes all the way down.” Perception, language (as symbolic process), and consciousness together “go all the way down.”

5.1.4 Symbols and the Symbolic Process

Laughlin posits the symbolic process as central to neural organization and experience. As such, his concept includes, but reaches beyond, the symbol as it is conceived in a semiotic context. When he is talking about the symbol (as “signifier”) he is referring, minimally, to any stimulus that provides sufficient patterning for entrée into a model (as “signified”) that contains more information than that provided by the stimulus. The symbol is the medium by which we connect the “operational world” (of noumena) to the “cognized world.”

The intentionality of a symbol may be conceived as simply the functioning of the models evoked by and entrained to that symbol, or the functioning of the models that produce that symbol (Laughlin 1990).

5.1.5 Semiosis

The development of the cognized environment—the accrual of ever more complex models and the symbols that evoke them—is semiosis in Laughlin’s system.

If a symbol-model entrainment is to be effective in completing intentionality so that it facilitates an adaptive response to the world, then the model must be formulated in active dialogue with the world. We term this dialogue semiosis: the EMC³⁴ process by which a symbol develops its intentionality³⁵ (Laughlin 1990).

Semiosis is that process by which the novel symbol is assimilated to conscious network—adjusting models in the learning process.

5.1.6 Evolution of the Symbolic Process

Actually, consciousness can’t evolve any faster than language. The rate at which language evolves determines how fast consciousness evolves; otherwise you’re just lost in what Wittgenstein called the unspeakable –Terence McKenna (McKenna 1988).

The idea of the co-evolution of language and consciousness is given a neurophysiological grounding in Laughlin’s theory of the symbolic process. It is in this sense that the terms “language” and “the linguistic” are used in this thesis; language is construed as intrinsic to living forms at a fundamental and operational level. Laughlin tends to reserve the term “language” for human forms of the symbolic process. When I use the term, “the linguistic” I am beginning with Laughlin’s “the symbolic” as a basis of understanding, and expanding the notion of “the linguistic” to the phenomena of the psychedelic sphere.

Life communicates symbolically in complex and multiple ways: within a single organism; across scalar vastnesses, from molecular to molar levels; and between organism and the “operational environment” which includes other organisms.

³⁴ EMC: the empirical modification cycle; i.e., learning.

³⁵ In Laughlin’s discourse, intentionality means, essentially, “meaning.”

Laughlin summarizes the evolution of the nervous system in terms of the symbolic process.

Over the course of phylogenesis, the nervous system has increased in anatomical elaboration and complexity along a number of dimensions. . . The increased functional complexity mediated by the nervous system may be noted in the increased complexity of the symbolic process. Indicators of this evolutionary advance in semiosis include: (1) increased spatiotemporal distance between a noumenon and reception of information about the noumenon leading to evoked intentionality; (2) increased complexity of cognitive associations (or models) entrained as intentionality; (3) increased expansiveness of spatiotemporal extension modeled within intentionality; (4) increased capacity for cross-modal transference and integration of intentionality; (5) increased hierarchicalization of models mediating intentionality; (6) increased autonomy of higher cognitive functions from lower affective ones; and (7) increased complexity of formalized behavior as an expression of intentionality.

In short, the symbolic process has become more ramified and complex along precisely those dimensions that have characterized the allometric elaboration of prefrontal, parietal, and temporal association cortex. For example, the development of cross-modal transfer meant that a symbolic stimulus presented to one sensory mode could potentially evoke models in more than one sensory mode. *Obviously, then, we may speak of the evolution of the symbolic process reflecting the evolution of consciousness, for symbolic processing incorporates many of the structures that are routinely entrained to conscious network and that mediate consciousness [emphasis mine]* (Laughlin 1990).

5.1.7 Evolution of Symbolic Forms

The symbolic process in cognition operates largely (unless given the form of attention of contemplation to bring it into view, as with the perception of "dots") at an unconscious level. In the evolution of symbolic forms, Laughlin differentiates first between symbol (small *s*) as the fundamental form (stimulus-as-object) and SYMBOL (big *S*) as cognized symbols, and identifies SYMBOL as an evolutionary advance.

A person or society's SYMBOLS are typically those that may evoke models of the most extensive and profound intentionality (e.g., flags, totems, shamanic regalia, religious icons, commercial logos, personal customary, etc.) (Laughlin 1990).

SYMBOLS are the products of enculturation. Laughlin introduces the concept of semiotropism to discuss the functioning of SYMBOLS in culture.

An orientation of attention upon any SYMBOL to the exclusion of other potentially perceivable objects we term semiotropism. Semiotropic responses are particularly dramatic and evident when they are upon SYMBOLS within the context of ritual. The role of prefrontal cortical structures in both augmenting associations configured about the SYMBOL, and inhibiting alternative objects of attention, is paramount³⁶ (Laughlin 1990).

The next step in Laughlin's evolution of symbolic forms he terms the sign.

From the present perspective, a *sign* is an evolutionarily advanced and specialized SYMBOL. A sign is specialized for participation as a unit in a greater SYMBOLIC system. The evolutionary sequence has been from the primitive symbolic process to cognized symbols. Coinciding with the development of SYMBOLS, the cognized environment became less stimulus-bound, an occurrence indicating that cognitive associations and intentionality of models could be, to some extent, removed from the pressure of immediate perception. As the cognized environment became less stimulus-bound, the relationship between SYMBOL and intentionality in expression reciprocated. This reciprocation produced (was the necessary condition for) a greater semantic arbitrariness in the intentionality of SYMBOLS over and above symbols (Laughlin 1990).

The next stage of evolution of symbolic forms is the development of *sign systems*: human spoken and written "natural" languages. Laughlin critiques Chomsky's postulate of "deep structures" as the generative source of language, as limited to specifically "linguistic" structures, which cannot be mapped onto neurocognitive organization. They hypothesize, rather, that

a neurocognitively grounded theory of language will recognize that the deepest structure of lexical intentionality are not to be found in discrete linguistic structures, but throughout the neurocognitive system and its perceptual, conceptual, imaginal, affective, and attentional structures. . . We need recourse only to common experience to see that linguistic utterances may evoke thoughts, images, scenes, feelings, states of arousal, and autonomic and metabolic responses (Laughlin 1990).

This view is paralleled in Terence Deacon's work:

Once we abandon the idealization that language is plugged into the brain in modules, and recognize it as merely a new use of existing structures, there is no reason to expect that language functions should map in any direct way onto the structural-functional divisions of cortex (Deacon 1997).³⁷

³⁶ Semiotropism can be seen as the neurophysiological aspect of rhetoric, when defined, as by Lanham, as "the science of human attention-structures." Lanham, R. A. (1991). A Handlist of Rhetorical Terms. Berkeley, University of California Press.

³⁷ Deacon's delineation of "the symbol" is less inclusive than Laughlin's. He describes symbol as a specifically human development, differentiating between earlier forms of cognition and communication at the animal level. He is also firmly in the camp of the

Natural language, as the human being's primary sign system "obtains its notable adaptive power because it is the manifestation of a neurocognitive system relatively free from a perceptual frame."

The next stage in symbolic evolution, in Laughlin's model, came with the emergence of *formal sign systems*. While they see the origins of abstraction as far back as the Middle to Upper Paleolithic, these systems begin to flourish and proliferate with the invention of writing.³⁸ Formal sign systems such as mathematics, geometry, symbolic logic, are developing exponentially. The development of media such as photography, cinema, computer visualization are part of this process of symbolic proliferation. From this standpoint, the symbolic process—when one considers symbolic forms in the human being—is evolving at an accelerating pace. The general purpose linguistic machine—the computer with its electronic language of logic gates, based on Boolean logic, and the layers of language by which software is elaborated—is a linguistic development only 60 years old that has arguably revised the structures of global civilization with at least the impact of the introduction of electricity itself. The advancement of communication technologies in general, and digital technologies specifically, what we group under "media," is a history that underpins two of the specific examples of xenolinguistic systems dealt with in this thesis.

symbolic process as being "representational." These arguments are beyond the scope of this thesis; the point I am emphasizing in Laughlin's formulations is the sense in which the symbolic process goes "all the way down" as more important than the distinctions between the "iconic," the "indexical," and the "symbolic." Laughlin of course recognizes the differences of the human symbolic process, from earlier animals, and its own line of evolution of symbolic forms, as above.

³⁸ While the origins of spoken language are largely indeterminable, both from the lack of physical evidence, the origins of writing can be determined to a closer degree. The cuneiform accounting systems of Sumer date back to the fourth millennium B.C. There are Chinese tortoise shell inscriptions that date back to 6000 B. C. but whether these constitute "writing" per se is contested.

[If] you look at the evolution of media as you would look at the evolution of a species or a group of genera in an organic situation you would see a very pronounced preference for the visual. Colorful and rich speech gives way to photography. . . then color and motion. . . stereo. . . Clearly we view the language-forming enterprise as a task not yet brought to completion (McKenna 1994).

5.1.8 The Universal Symbol

Laughlin identifies one further type of symbol which stands in a different relation to the evolution of symbols outlined above. They call this the “universal symbol” and identify it with the Jungian archetype. Examples of universal symbols are described as arising in meditative practice, where the meditator constructs, element by element, and holds an inner SYMBOL (such as the representation of a complex Tibetan Buddhist deity) steadily in mind.

When an inner SYMBOL is stabilized as an eidetic image, and concentration upon it is intense and undistracted, the stage is set for the arising of one or more universal symbols. These are sensorial phenomena that arise unbidden from unconscious networks, and are the result of a radical reentrainment of networks producing a warp in consciousness. The inner SYMBOL is transformed or eliminated, and in its place occurs a sensory experience intuitively, but nonrationally related to the inner SYMBOL (Laughlin 1990).

These universal symbols are seen as cross-culturally invariant (hence universal) in the structure of alternative phases of consciousness, and of a numinous nature.

the bliss of re-figurement—hard to express in human—yes—Glide—but you your future selves—as we said before—time pours through the crystal lattice the crystal matrix—the memes will go forth bursting like pollen from the anthers—crystal pollen, crystal spores from the opening pod of your mind and the crystal structures. . . (AD_01.12.15 MDMA)

Finally, it should be emphasized again that the arising of the universal symbol often occurs paired with an affect of intense ecstasy or bliss. . . It is unexpected, it is often novel and dramatic, and it is frequently paired with both intuitive insight and ecstatic bliss (Laughlin 1990).

Ecstatic sensations—can the ascent be described? Physical—running throughout the body very fast now—close eyes and will be gone—thread of language requested given—Now visual just beginning. The multiplying of dimensions—whole body participates—something flooding through—the rainbow serpent swiftly occupies the space of the body (AD_03.01.18 3 gm. Stropharia cubensis)

The Bright White Mist -- When your mind finally reconnects all iterations of the universal fractal within a single moment. . . I remember, next, that the whiteness was becoming more and more powerful. I could not resist it, and at this point, I actually

did not want to resist it. I let go, and it overtook me. After this point, there is no time; there is no me; there is no body; there is no universe; there is no pain; there is no anxiety; there is simply that moment, followed by that moment, and that moment again. I was nothing but a flow of thought (Miro 2002).

Faithful scribe. A scriptorium. A Glide seated himself in the heart of the blue lily. Crosslegged. Reddish dark skin, elven ears. Human sized. He shows me the crystalline lilies. He gives me a crystal ball or bubble to hold. The ball is a portal. The ball is a condensed space/place. The crystalline blue, green, violet space of the lilies. Crystals. Great wealth flower petal soft, crystalline sharp and defined. This is different this teaching. You have to be more "awake" to scribe this. Learning to see into the other dimensions/spaces. Don't invalidate. This is important: you want to see us—the blue-purple lily fills my heart—again—more vivid—larger—it leaped in it unfolds and unfolds—Blue-black lotus—deep deep velvety lotus—the jewel in the lotus crystal and soft and petal like (the center of the lily a tiny point—highly condensed—the petals open and open and open—everything generated from the point—of infinite depth at the heart of the lily—this is the connection point be very very aware of it—in the center of the heart that holds the lily—this is the crystal the jewel this is the opening—let me go through—it is the point through which the center universe is pulled "inside out"—deeper than deep—deep deep blue point—seed portal—something so tiny, so point-like something so secret so centered something to be aware of bindu The jewel in the lotus the heart the center—it is the reassure—in the center of the heart—it is not conceivable but you can sense it—it is the great secret—the jewel in the heart of the lotus the lily is real real real—it is a deeper illusion than all illusion it is the midnight pearl (AD_02.11.16 MDMA)

5.1.9 Symbolic Penetration

Laughlin defines symbolic penetration as a transcalar, interconnected system of communication:

The effect that one cell has upon another, one network has upon another, or one system has upon another we have called penetration. . . This mutual interpenetration occurs between nested systems at the same level of organization within the same system (Laughlin 1990).

Symbolic penetration can be *driven* as well.

Lower autonomic systems may be tuned and retuned directly by penetration from external stimuli. . . These stimuli are called drivers and may take the form of repetitive stimulation such as drumming, flickering light, chanting, or sexual intercourse. Drivers may be used in ritual circumstances to generate simultaneous discharge of both systems (e.g. orgasm), which sets the stage for a radical retuning of the systems relative to particular stimuli (Laughlin 1990).

The role of symbolic drivers in both the shamanic and the syncretic church settings to guide the ayahuasca encounter are well-documented. Hymns, or icaros, dances, drumming, and visual symbols such as ritual costumes, masks, the objects on a shrine or on the shaman's *mesa*, all play their part in channeling the experience within a culturally determined set of intentionalities. These meanings

are reinforced by the creation in the group of a shared state of consciousness shaped by previously internalized models (the myths and cosmologies of the group; the *set*) entrained by symbolic drivers.

Symbolic drivers are integral to many of the experiences we call "art." In my own practice of performing with LiveGlide, a three-dimensional writing instrument for the Glide symbolic system, the projection of the moving, transforming symbols onto a dome in an ASC, drives the ASC, which in turn, directs the writing and simultaneous reading in a feedback loop, amplifying the intensity, resonating within the integrated inner/outer space of inscription. In the ASC, the symbols, the glyphs of the Glide symbolic system, create their meanings in the flow of symbol through three-space into form. LiveGlide, by moving the two-dimensional glyph through three-space, is generated by the rainbow serpent gesturing through the body-mind and generates a visual form of the rainbow serpent.

5.2 Psychointegration: Winkelman

Anthropologist Michael Winkelman's cross-cultural work on shamanism is grounded in Laughlin's explication of the symbolic process. Winkelman's emphasis on the psychointegrative function of psychedelic substances offers a neurophenomenological connection between brain function and experiences such as hyperconnectivity in the ASC experience of cognition, including the "ecodelic insight" of our intricate interwovenness with the whole of nature.

5.3 Presentational and Representational Symbolic Cognition: Hunt

Psychologist Harry Hunt's focus on "presentational" states of consciousness, in contrast to the linguistic³⁹ or "representational"—states he sees as the focus of the majority viewpoint in cognitive science—may be helpful in understanding both the sense of deep meaning imbued in the perceptions of altered or "visionary" states, and the encounter with various aspects of what I interpret within ASC as "linguistic phenomena."

It is here that we can turn to the spontaneous transformations of consciousness that constitute "nature's experiments" on mind, initially at least in its first-person aspect, and that have been variously termed "altered states of consciousness," "transpersonal states," or, as below, "presentational states." These phenomena appear to offer just the empirical clues both to the nature of consciousness in general and to its cognitive-symbolic processes that are lost in the transparency of ordinary awareness. Indeed, these subjective states, both in their positive form as an enhanced experiential synthesis and in their more disintegrated and psychotic aspect, constitute the uniquely privileged "microscope" for an emergent psychology of consciousness—and perhaps even of symbolic cognition itself in its broadest aspects (Hunt 1995).

By relating "symbolic cognition" to "presentational states" (ASC), Hunt constructs a framework for understanding "hallucination" (extended perceptions) and mystical vision as linguistic, communicative, something that can be read, a text, and brings us closer to a particular psychedelic meme: the concept of the linguistic structure of reality.

That's why it's so important to communicate, for all of us to put our best foot forward, to put our best metaphors on the table. Because we can move no faster than the evolution of our language. And this is certainly part of what the psychedelics are about: they *force* the evolution of language. And no culture, so far as I am aware, has ever consciously tried to evolve its language with the awareness that evolving language was evolving reality (McKenna 1991).

Hunt uses the terms "symbolic" and "language" somewhat differently than Laughlin. For Hunt, "language" means "natural language" while "the symbolic"

³⁹ Hunt consistently uses "language" and the linguistic to refer to human "natural" language, as does cognitive science in general, and "symbolic cognition" as specific to the human, self-referential form of consciousness.

encompasses the full range of meaning-making from the presentational to the representational. He does not posit the presentational as a more primitive form of cognition out of which the specifically linguistic emerges. Rather he sees all symbolic cognition as cross-modal and synaesthetically based, in other words, highly complex under introspective scrutiny, though not necessarily in “the transparency of ordinary awareness.” This cross-modality is also, in his view, essential to all metaphoric construction, a view he holds related to Lakoff’s view of primary “image schemata” derived from our embodied and kinesthetic sense.

One of the things that are especially interesting about these states is that they appear to be spontaneous expressions of a self-referential, abstract, symbolic capacity that has traditionally been explained as a consequence of language but here is manifested in a nonverbal form (Hunt 1995).

Hunt’s view of “synaesthetic consciousness” is on the one hand, sharply restricted to the human.

It makes no sense to ascribe synaesthetic consciousness to nonsymbolic animals, since they lack a capacity to cultivate sensitivities for their own sake, that is, aesthetically. Moreover, there could be no possible use for such beings in having experiences that entail an inability, however brief, to tell which modality has been stimulated or the spatial-temporal location of its source. The aesthetically rich properties of these subjective states are the clue that we are dealing with a capacity fully emergent only on the symbolic level (Hunt 1995).

This restriction of synaesthetic consciousness—or in fact consciousness more broadly, to say nothing of intelligence and language—to the human is sharply contradicted in many aspects of the psychedelic experience. In all the varied ayahuasca cultures of South America, plants are teachers, offering knowledge not only of themselves as symbiotes of the human, but of the most profound cosmological visions. And aesthetics? The seductive rhetoric of the rose, the orchid, or the forget-me-not communicate their complex synaesthesias of smell, taste, touch, color and form within their own domain, to the sensoria—not *human* sensoria, but a highly tuned, infinitely specific set of communicative relations of

their mobile colleagues—insects, birds and mammals. These same plants have communicated to us, the humans, in our differently configured sensoria using their extensive vocabularies of chemical communications and effortless production of beauty to lure our impoverished steel-glass-plastic civilized sensibilities to their own adaptive advantage: we cultivate these beauties and advance their evolution, a point made by Michael Pollan about tulips and cannabis (Pollan 2001).⁴⁰ Plants are inter-species linguists at a level of depth and complexity that is completely obvious to the shamanically trained—who have been taught by the plants themselves (Beyer 2009).

The property of so many psychoactive plants to release, renew, and enhance aesthetic sensibilities in our human selves leads to the question: What kind of aesthetic intelligence can we construe in the world of plants that can redemptively return us to the world of beauty?

Psychedelics return us to the inner worth of the self, to the importance of feeling immediate experience. And nobody can sell that to you and nobody can buy it from you, so the dominator culture is not interested in the felt presence of immediate experience. But that's what holds the community together. And as we break out of the silly myths of science and the infantile obsessions of the marketplace, what we discover through the psychedelic experience is that in the body—in the body—there are Niagaras of beauty, alien beauty, alien dimensions that are part of the self, the richest part of life (McKenna 1991).

Hunt, at the same time, portrays this “loss of reality” poignantly in his portrayal of the effect of Cartesian doubt:

Social scientists perhaps should not ignore the fact that Descartes—the progenitor of the subject-object dichotomy in its modern form—actually managed to doubt whether he *existed* and had to construct logical proofs in order to convince himself *intellectually* that he did. Proofs for the existence of God may or may not be

⁴⁰ The opportunity to observe the development of female cannabis plants, and to encounter their exorbitant sexuality while in a psilocyberic state made it perfectly clear that the source of the appetite enhancing, aphrodisiac, aesthetically tuning, and medicinal properties (these categories promiscuously intermingle) of this broad-spectrum plant is the sparkling, globular, amber, sticky cunt-juices—the resin production—of an aggressively sexy plant which has found a perfect symbiotic mate in the human.

charmingly quixotic, but needing a proof of one's own being or isness is, more simply, sad, if not overtly schizoid. The danger is that our contemporary psychological and philosophical concepts of consciousness are not merely conceptually confused, as Wittgenstein would have it, but actually clinically disturbed. We unwittingly enshrine an endemic narcissism and personal isolation at the core of our thought about our own nature and potentialities (Hunt 1995).

What Hunt does not seem to notice is that his anthropocentrism in respect to symbolic cognition may be another symptom of the same narcissism, applied not only to human nature, but to all-the-rest, Nature herself.

In another context, however, in his discussion of William James' famous descriptions of consciousness as stream or flow, Hunt takes this perception of consciousness as a fundamental metaphor, deep in nature.

Or, perhaps there is something about flow—among other possible metaphors—that is not arbitrary but reflects the actual organization of perception as resonant to the moving physical surround. After all, in evolution we begin in a liquid, flowing medium, which is reconstituted for the mammalian embryo. Now, air currents surround us with an identically organized, encompassing medium. . . Water, air, and fire, as the major metaphors for the formal qualities of awareness, all have in common the properties of a turbulent flow in constant transformation. These same properties are central in mythology, philosophy, and the etymologies of words for "mind" in all languages, and they have now become the focus of contemporary nonlinear dynamics. Perhaps our self-awareness and the perception that it reorganizes is patterned in terms of flow properties "mirrored" in from the most fundamental features of the physical surround for living, motile organisms. If so, then James' stream is both a self-referential metaphor and a mirror of the physical reality most adjacent to the life-world (Hunt 1995).

Hunt puts flesh on Laughlin's idea of the symbol as a fundamental unit of perception. He continues the explication of flow through the images of alchemy—"expansions, congealings, and flowings into diverse patterns, as a spiritual and meditative enterprise of personal transformation."

We could say that chaos theory, along with related interests in the self-organization of forms, is the direct historical continuation of these early alchemical preoccupations, otherwise so outside our mainstream scientific tradition. . . In this sense, their descriptions and pictorial images call attention to the emergent self-organization of the same form constants at all levels of physical reality that is again of such contemporary interest. They also exemplify the flow dynamics of complex cross-modal cognition, since the alchemist will kinaesthetically feel what he or she sees.

Under it all, and the secret of its fascination, will be the fluid dynamics of the envelope of flow that is the perceptual array of all motile organisms (Hunt 1995).

[Appendix I, Figures 23 and 24.]

delicious torque-ing twisty serpentine motions of energy in body (LiveGlide forms being drawn in body)

this twisting energy in the body-mind produces the transformation of consciousness occurring here—the dimensional shift the move that creates added dimensions “the force that through the green fuse drives the flower” a spiraling energy movement of Tao—coiling, torque-ing, twisting, spiraling, folding, while replicating flow begets form drawn in body—now spell out in words—serpent coiling uncoiling—built into LiveGlide language. Kundalini—serpent—DNA—Narby got it. what is missing in scientific description is the sensuous energy forms—the feel/ of the process—the organic dance. ball and strut molecular model makes stiff and still what is moving, curled, folded coiled, twisted, spiraled—organic motion—dance what the binary cannot capture—sensuous re-entry into the form—autopoiesis as sensuous process (AD_03.11.02 MDMA)

Hunt traces the spiraling, serpentine forms throughout levels of organic development, with illustrations from D’Arcy Thompson’s classic *On Growth and Form*, and from Theodor Schwenk’s work, *Sensitive Chaos: The Creation of Flowing Forms in Water and Air*. He quotes Schwenk, “The organ of the higher animal may be regarded as solidified movement.”

5.4 Biologic: Varela

Francisco Varela’s work on first person methodology and on the calculus of self-reference touches many concerns of this thesis. The calculus of self-reference, based in George Spencer-Brown’s seminal work, *The Laws of Form*, and developed in conjunction with mathematician Louis Kauffman, forms the basis of a biologic—a logic of living forms, that bears a suggestive relationship in its ideas and in its formalism to the Glide symbolic system’s ternary logic.

There is a circumstantial connection of this line of thinking with the world of psychedelics suggested by the 1973 AUM conference at Esalen, organized by John Lilly and Alan Watts to explicate the work of George Spencer-Brown, with Spencer-Brown himself presiding. Attendees included Gregory Bateson, Heinz von

Foerster, Karl Pribham, Ram Dass, and Brendan O'Regan, a fine sampling of the psychedelic, human potential movement, and cybernetic intelligentsia of the time. Spencer-Brown himself studied and underwent psychotherapy in the 60s with the controversial psychiatrist R. D. Laing who was using LSD as an adjunct technique. Bateson and von Foerster were at the heart of the Macy Conferences, that, in addition to the work on cybernetics, sponsored the first international "LSD therapy" conference in 1959. Ram Dass, as Richard Alpert, was Timothy Leary's colleague in LSD at Harvard, and co-author of *The Psychedelic Experience*. Sorting out the connections between the psychedelic and cybernetic movements, the Macy Conferences and their CIA funding from the MK Ultra program, (Price 1998) will be the work of a social historian. For the purposes of this thesis, I wish only to note that a major idea at the heart of Spencer-Brown's *Laws of Form*—the inclusion of self-reference in his calculus of indications and the resolution of the logical paradoxes that troubled Bertrand Russell into his theory of types—reflects the psychedelic, alchemical and/or mystical experience of the union or co-existence of opposites without contradiction.

The world view that made most sense of this experience was clearly a mystical one. Neither the subjective nor the objective pole of experience could encompass the totality. The possibility of transcending boundaries between self and other, the illusory nature of ego, the interdependence of opposites, the relative nature of dualism and the resolution of paradox in transcendence became clear. Francis Vaughan, LSD in (Grinspoon 1983).

Looking back in our own history, constructing and reconstructing the tale of our origin as a species, and especially as a species with our forms of symbolizing capacity, is one way to imagine the evolution of language. Looking at our biological construction—in fact, the evolution of form in the biosphere—as linguistic—is another. Varela extends the domain of *natural* language to an understanding of the way in which Nature has constructed me linguistically, or, at

the very least, produced a creature that would describe her (Nature's) activities in such a fashion.

In *Principles of Biological Autonomy*, Varela's exposition of autopoiesis followed his extension of Spencer-Brown's calculus of indications to a calculus of self-reference that is central to the operational description of autopoiesis as the construction of a self-producing and self-maintaining autonomous living system. Varela distinguishes between two levels of description which he calls the operational and the symbolic. The operational or causal description of the autopoietic living system is, essentially, a description in terms of scientific practice that yields predictable outcomes, and that has no need to include purpose or *telos* in its description. The operational description traces causal interconnections between components of the system; it is the language of chemical interactions, of molecules and atoms. As Varela asserts, "Living systems, as physical autopoietic machines, are *purposeless* systems" (Varela 1979). And further, "Notions of information and purpose are, from the point of view of an operational explanation, dispensable." In essence, such notions belong to a different domain than the system's autonomous organization. Varela, however, makes clear that one can recover a "non-naïve and useful role of informational notions" belonging to a different category of explanation, the symbolic, and makes clear that "the connection between an operational description (such as autopoiesis) and a finalistic description lies in the observer who establishes the nexus."

This possibility of choosing to ignore intervening nomic links is at the base of all symbolic descriptions. What is characteristic of a symbol is that there is a distance, a somewhat arbitrary relationship, between signifier and signified. . . Thus in order to understand language, we do not trace the sequence of causes from the waveform in the air to the history of the brain operation, but simply take it as a fact that we *can* understand. . . Thus we come to the conclusion that purpose and symbolic understanding are interrelated as a duo, that is symmetrical to the duo of operational explanation and prediction. Under symbol we are subsuming here the varieties of its forms, such as code, message, information, and so on (Varela 1979).

Varela asserts that the operational and symbolic description do not contradict each other, coming from two different levels of description in a community of observers.

The autopoietic system maintains itself through its self-contained regularities—the predictability of the operations, and it is these regularities that give rise to symbolic explanations. An example of a symbol would be the identification of a “gene” as a structure in the system of the cell’s organization, an assigned meaning that carries descriptive power beyond, and in a different fashion, than the operational descriptions of DNA within the autopoietic organization of the single cell. The “gene” is implicated in relations between autopoietic systems, in a larger context outside the single autopoietic system, relations such as “development,” and “evolution.”

On empirical grounds, the regularities that have been fertile and preserved in evolution are those such that the symbols that stand for them can be seen as *composable like a language*—in other words, such that the individual symbols, as discrete tokens, can interact with each other in a syntax capable of generating new patterns in combination. Again, the typical example is the genetic symbols, which in a linear array are eminently composable. This is still somewhat possible, but not so clearly so, in the case of external signals and surface receptors. . . The great symbolic systems of living beings—the genetic and nervous systems and human language—are all based on regularities whose symbols are composable through rules that generate a vast class of new phenomena out of a set of discrete elements (Varela 1979).

An *autopoietic system* has organizational closure; it is autonomous, possessing a unique and bounded identity. Phenomenology, in this light, is self-description from within an autopoietic system. An autopoietic system maintains a balance between its structural invariance, by which identity and wholeness are maintained, and structural plasticity—the limits of change within the system that can occur while maintaining invariance. This play of opposites, the internal management of a discursive paradox within the system is expressed in Varela’s calculus of self-reference (Varela 1974). The bodies of living forms are composed of inter-

communicating, nested hierarchies and heterarchies (what Varela calls “trees” and “nets”) of autopoietic systems: systems within systems within systems, each producing and maintaining it/self (as an autonomous whole) while simultaneously functioning as part of larger systems: whole/part.

Structural couplings are the interactions of a structurally plastic system in an environment with recurrent perturbations that will produce a continual selection of the system’s structure. The *cognitive domain* of an autopoietic system is the specification of the domain of interaction with the environment possible without loss of identity.

The domain of interaction that an autonomous system can enter through structural plasticity without loss of closure constitutes its cognitive domain. Every cognitive domain is adequate for an autonomous system; otherwise it would disintegrate. In fact, adaptation is, from this point of view, a truism. It’s usefulness as a notion is not operational but symbolic: it points to the kinds of regularities exhibited by structural coupling (Varela 1979).

A *symbol* is a component interaction in a structural coupling. The concept of the allowability of structural coupling reveals the rule-based nature or syntax of these interactions.

Any component interactions thus defined as a symbol are generated by the coupling and can only be defined in reference to it (Varela 1979).

—syntax—where the link-view is as important as the node—that it connects and how it connects—when in motion, exhibits link-seeking, link-generating, and link breaking behavior metaphor and process, also metaphor in process—as links are made and broken in a shifting fabric or surface of meaning (2D Glide) or, more complexly—where meaning emerges as a moving edge, leaving behind it the static forms—where flow begets form—where the energy of meaning-seeking (or desire to communicate) reaches out, exhibits link-seeking behavior) (AD_03.03. 23-24 Paris SETI MDMA)

Further, whenever the symbolic components of a cognitive domain can be seen as composable (i.e., have some sort of syntax), this corresponds to an immense evolutionary advantage for the units that generate them. The emergence of second-order autonomous systems is then possible, built on the interdependence of a symbolic domain (Varela 1979).

This set of definitions outlines a framework for living systems that is linguistic at the core, and linguistic at every order of magnitude within the living form.

body a living language—made of code—metaphor for filamental structure—at many levels of description—multiple metaphoric structure—wave structure of the universe superstring theory intones the waviness the profound waviness of the universe an interconnected web of finest vibrating fibers—Tai Chi—waves of chi (AD_03.03.23-24 Paris SETI MDMA)

It is important at this point to highlight Varela’s clear insistence on a non-Shannonian concept of information. Varela’s definition of information:

I would still like to use the word information, but in its more original etymological sense of *in-formare*, to form within, (Bateson) which corresponds well to the idea presented here. *We can define in-formation as the admissible symbolic descriptions of the cognitive domains of an autonomous system (Varela 1979).*

Below is a table of Varela’s differentiation of the two uses of “information” that makes clear his conception of the autopoietic system and distinguishes it from a (first-order) cybernetic description of a system with inputs and outputs, with “information” as that which is put in and put out.

Co-dependent sense	Referential sense
Information is coherence or regularity, viability	Information is a mapping or correspondence
Extrinsic, not operational but only relative to an observer who establishes the uses	Intrinsic, operational
Unity is defined autonomously, and relates to it as perturbations	Relation to a unity is through allonomous inputs
Environment or world is defined through invariances relative to the system’s operation	Requires a fixed, given world or environment
Observer-community is, explicitly, what detects the regularities	Does not include observer explicitly
In-formation is always interpretation	Information is instructive
Generated by structural coupling	Generated by definition

In this sense, every notion of information, symbol, or sign is devoid of substance and is always codependent, and never operational. Not that one cannot make them look very solid in particular situations; the danger is in forgetting that it is we who do so. If we do forget, then information becomes a mythical entity, a vague fluid floating around in nature, the stuff to be found in DNA and languages out there, with nobody specifying them, as a seemingly operational part of the fabric of nature (Varela 1979).

Varela goes on to define a *linguistic domain* as “the aggregate of symbolic descriptions arising from the structural coupling between two or more autonomous systems. Communication is behavior in a linguistic domain.

When compared to Laughlin’s idea of symbol, in the cognitive science description of models and representations, we see that Laughlin falls on the right side of the chart.

As implied in the definition of a linguistic domain, communication is a generative process. Accordingly, all that we have already stated about symbolic explanations for the immune and nervous networks applies to communicative behavior as well. Again, communication cannot be understood as instruction or information "transfer" from one organism to another. Whether the semiotic domain is extremely stereotyped (as in tissues interacting through hormones) or highly self-reflexive (as in human language), to put communicative information in a category comparable to energy or matter is misplaced concreteness, and confusing levels of description,⁴¹ as I have said before (Varela 1979).

Varela's autopoietic systems are *knowing* systems, engaged in communication, cognition, in linguistic behavior, at every level. Knowledge arises in the interactions, the "conversations," the "structural couplings" between autonomous systems. In this sense they are "units of mind."

A conversation on the one hand embodies a direct prototype of the way in which autonomous units interact. On the other hand, it is an instance of an autonomous entity in itself, and a very important one, for we are immersed in the ongoing autonomy of our tradition, the ongoing autonomy of a next higher level of interdependence as participants. These two sides of conversations, bring us in fact to the heart of an essential consequence of all that has been said before, namely, the need to *reconsider the traditional notion of subject* (Varela 1979).

notion—in Qi Gong—the movement, can be made entirely with the mind? the body/mind work together—grasping for something here—mind is body whole body—in some sense—distributed awareness—can the mind stalk like a jaguar? ripple like a goldfish tail?
(AD_03.03.17 MDMA)

We can go one step further here, to notice that whenever we consider an autonomous unit, it will have two characteristics that make it mindlike: First, it specifies a distinction between it and not-it, a basic dual split. Secondly, it has a way of dealing with its surroundings in a cognitive (in-formative) fashion, depending on its plasticity. From this point of view, then, mind is an immanent quality of a class of organizations including individual living systems, but also ecological aggregates, social units of various sorts, brains, conversations, and many others, however spatially distributed or short-lived. There is mind in every unity engaged in conversation-like interactions. I am saying that whatever we call mind in human affairs has a similarity to processes that are distributed in nature in its autonomous organizations. That there are differences with the human experience, I doubt not; I am speaking here not of the differences but of the continuity. Such continuity has often been claimed, particularly since Darwin, but always with the subject regarded in the best Cartesian, skull-bound tradition. With Bateson and Maturana, I am suggesting that this continuity goes beyond that, to encompass the cognitive processes of every system that acquires an autonomous structure, beyond the single biological, but also of what social interactions and traditions are (Varela 1979).

⁴¹ Between the operational and the symbolic.

I have gone into Varela's system in some depth because I feel it offers an interwoven view of mind, sentience, cognition, language, and symbol that is most useful in describing psychedelic experience phenomenologically. It is the essence of the constructivist position, which he differentiates clearly from the "objectivist scenario."

This distributed, densely interconnected notion of "mind" is reminiscent of Huxley's "Mind-at-Large." The perturbation of systems in the body due to psychedelic action in the neurotransmitter system—a highly structurally plastic system, as is the whole of the nervous system—perturb the perceptual system, and change, for the duration of the perturbation, the sense of self, opening "self" to Mind-at-Large and thereby to the experiences which I have called the Other (in its multiple forms). These perturbations create, temporarily, novel forms of cognition—conversations with the Other—and the possibility of new knowledge. The experience that Richard Doyle has called the ecodelic insight and McKenna calls the Gaian oversoul or "an ecology of souls," can be understood from this theoretical framework. The "self"—our way of referring to our internal sense of our own unique, differentiable and distinct identity or autopoietic nature—can also be seen as highly structurally plastic; it can seemingly dissolve its usual self-perception into new formations, and engage in new conversations within Mind-at-Large, then re-shape it/ self to its initial state, regaining its recognizable autonomy at baseline. Consciousness, in this light, is seen as one of the most structurally plastic systems we can experience., and the self as a linguistic construction whose autonomy can dissolve (death of the Ego) or be radically reshaped when it enters a different linguistic domain, with different structural couplings (conversations) among selves, and reform when the perturbed situation is resolved.

The BE ME experience of the two-in-one (or two-*and*-one) experientially defines the structural coupling within which knowledge acquisition in the cognitive domain delineated by that structural coupling occurs.

[Appendix IV, "Contact with the Other"]

In the psychedelic states, links can be formed, and then dissolved, in the same manner of structural couplings between any autopoietic systems.

Psychedelics, by forming new couplings, new configurations of interconnectivity, new conversations, open new linguistic domains, where the interactions of the conversation with the Other can call forth new symbols and symbolic systems, and provide another language with which to speak of the evolution of language in the psychedelic sphere.

5.5 Correlative Systems: Farmer

Renaissance scholar Steve Farmer's research on correlative systems relates the structure of pre-modern through High Renaissance textual and oral traditions to the structure of the brain, especially the anatomy of the cortex. He and his colleague, Steve Henderson, a Sinologist, were searching for an explanation of the arising of similar forms of cosmological systems cross-culturally within the same time frames where no significant cultural cross-fertilization could have occurred. The model they constructed postulates that given our common brain structure, and therefore our common platform for cognitive activity and the construction of knowledge, such similar systems can and will arise independently and culturally follow similar evolutionary patterns. In the latter stages of this evolution, Farmer identifies the "high-correlative" systems of the Renaissance, systems that correlate more than one correlative system into a grand system, reconciling, through complex exegetical techniques, the apparent contradictions in systems. Farmer's

major study is of the “extreme syncretist,” Giovanni Pico della Mirandola, whose *900 Theses* form a vast correlative system linking the Old and New Testaments with Plato, Aristotle, Kabbalah, Hermes Trismegistus, Averroes, and Avicenna. Pico’s intention was to demonstrate the unity of knowledge underlying these systems (Farmer 1998).

Farmer defines religious, philosophical, and cosmological systems as correlative systems, based in correlative thought, whose origin is rooted in our neurobiology. He takes the term “correlative thinking” from Joseph Needham (Needham, 1991 #821). Correlative thinking is “linked in turn to the origins of magic and anthropomorphism underlying myth and primitive concepts of deity” (Farmer 2006).

High-correlative systems evolved in all literate premodern civilizations: China, Europe, India, and Mesoamerican traditions.

Parallel developments we explored in this period included the elaborate cycles-within-cycles associated with mature models of time in Chinese, South Asian, and Mesoamerican traditions; neatly scaling (or “topological”) linear models of time that emerged in late-ancient and medieval Jewish, Christian, and Islamic traditions; and the complexly nested hierarchies associated with scholasticism in general (Farmer 2006).

Farmer’s explanation for the synchronous emergence of correlative systems lies hardwired in our neurobiological structures, namely, the vertical (and horizontal) symmetries in the structure of the cortex, where different areas are designated for specialized processing of perception (feature detection, types of tactile data, etc.).

The cortex is modeled as “a stack of topographic maps in which the frontal hierarchy is the mirror image of the posterior hierarchy.” In Farmer’s model, “topographic” means “correlative.” The layered structures of sensory processing are brought together in multisensory integration centers.

[Appendix I, Figure 25 and 26.]

What we label "correlative systems," and neurobiologists call "topographic maps," mathematicians refer to in general as "self-similar" or "self-affine" structures—better known as "fractals" (Farmer 2006).

Synesthetes are presented by Farmer as "ideal models for studies of correlative thinking and closely related phenomena including imitative magic; the condition at present is being intensely studied for the light it throws on cortical integration in general."

A growing consensus exists that at least one version of synesthesia consists in nothing but a heightened consciousness of normal sensory integration going on constantly in all of us. . . which again suggests the deep neurobiological origin of correlative thinking. This view finds further support in the fact that synesthetic experiences can be readily induced in normal subject by use of hallucinogenic drugs, which were widely employed in ancient religious-magical traditions (Farmer 2006).

Farmer emphasizes the critical role of brain-culture interactions in shaping our plastic brains . Laughlin's neurognostic structures are echoed in Farmer's formulation.

It should be noted finally that correlative brain maps are not static crude maps that are laid out genetically and in fetal development, but final response patterns are fixed by experience, which in humans involves massive cultural input. . . One implication of this finding is that it is not possible to neatly separate biological and cultural factors in brain development; this suggests in turn that existing divisions between neurobiological and cultural studies must be bridged before either field can fully mature. A second implication is that brains shaped in different historical environments can be expected to process data in significantly different ways; moreover, due to variations in personal experience, major differences at a detailed level can be expected as well in the specific perceptual, cognitive, motor, and emotional correlations made by individuals (Farmer 2006).

Farmer builds his own correlative structure in correlating two types of correlative structures: the brain, and the cross-cultural occurrence of texts of correlative systems in history.

It is important to note that Farmer operates firmly within the episteme of science, and considers these earlier thought-forms of "premodern correlative systems" to be "primitive," "magical," and "religious" and hence decidedly inferior to scientific thinking, a viewpoint which has similarities to the notion of our earlier

evolutionary forms, both biological and cultural, as being “inferior” as we progress into superior forms of cognition as epistemes shift. In Farmer, these “primitive” tendencies toward religion and anthropomorphism (equated with animism), which would certainly include the interpretation of plants as teachers and all experiences of spiritual entities so common to psychedelic experience, are a problem to be overcome with Reason.

Given how deeply these tendencies are rooted in cortical development, it is easier to explain why humans build anthropomorphic models of the world than it is to imagine how such tendencies can be overcome. This problem can be tied to the persistence of primitive religious ideas even in technologically advanced societies, which remains a global problem hundreds of years after the Enlightenment. (Farmer 2006)

Animism, for Farmer, is a bug, not a feature. This conflict of epistemes, clearly delineated in his value declaration, raises basic questions about the nature of the correlation he makes between the premodern and Renaissance correlative systems and the brain as correlative system. The contradictions are not at the level of experimental results, data gathered, or even conflicting interpretations but at the level of basic assumptions about the nature of knowledge. The source of much correlative thinking, according to Farmer, is found in ASC,⁴² where the conditions of knowledge acquisition the standards by which knowledge is evaluated, the forms that constructed knowledge systems take, and the content of the data itself are profoundly at odds with the conditions, standards, forms, and content of scientific knowledge.

[Appendix IV, “Contact with the Other.”]

⁴² Pico himself used ASC to syncretize the mass of texts in his 900 Theses. “In the nine hundred theses, Pico suggested that his own methods could not be applied mechanically but required a state of contemplative purity, perhaps even the trancelike state assumed by Abulafia and his disciples.” Farmer, S. A. (1998). Syncretism in the West: Pico's 900 Theses (1486). Tempe, Arizona, Arizona State University.

Farmer discusses the complex exegetical processes that the scholars who constructed increasingly complex correlative structures went through in the process of reconciling what on the surface can seem irreconcilable systems. While his brain model—as correlative system—and the structure of the cosmological systems he examines are similar, it is the scientific episteme through which he filters his observations and interpretations, that is not reconciled. This problem—the correlation of scientific findings about the brain and neurochemical effects on consciousness that occur with ingestion of psychedelics with the data of first person reports from ASC—underlies this thesis. The task is to determine not only what correlates with what (or fails to) but to ask—how are the correlations between scientific data and first person reports of ASC recognized, constituted, interpreted, and introduced into the knowledge system that this thesis represents? From which episteme are the correlations being made? To what extent is the “problem” a factor of what Terence McKenna calls “the balkanization of epistemology” and Nicolescu terms “the disciplinary Big Bang,” or to a confusion of levels of description, as in Varela’s differentiation between the operational (scientific) description and the symbolic? Put otherwise, what is the syncretic move that will reconcile Aristotelian logic and the logic of magic; causal connections and metaphoric links; and, ultimately, a scientific and a psychedelic world view? Nicolescu’s transdisciplinary approach which can potentially incorporate knowledge from different levels of reality—with different laws of operation—into an overarching meta-framework is an option.

5.6 Summary

Charles Laughlin’s neurocognitive approach to the symbol and symbolic process affords a perspective on language that is grounded in—but not reduced to—the

body's evolution and functioning as a physiological system. His models are inclusive of ASC.

Michael Winkelman's work on ASC and shamanism centers on the concept of psychointegration—the action of psychedelics to open and connect parts of the brain normally dissociated in baseline states of consciousness. He details the adaptive potential of the resulting states for healing, social cohesion, and visionary insight. His work is helpful in understanding aspects of the experiences recorded in the ADs, especially the experience of hyperconnectivity and quality of cognition that accompanies the exploration of novel linguistic phenomena in ASC.

Harry Hunt's differentiation between the presentational and the representational as two aspects of symbolic cognition, and his view of the symbolic arising in cross-modal synaesthetic perception (a hallmark of ASC of various types) offers useful categories in distinguishing types of knowing and types of symbolic expression, especially the difference between the propositional (natural language and its built-in logics) and the imagetic forms of cognition. This distinction has helped in understanding the reports from shamanism and the syncretic churches of the synaesthesias of visual and sonic elements in the *icaros* that guide and shape a variety of ayahuasca experiences.

Francisco Varela's idea of the mindedness and communication among autopoietic systems at all levels can be considered inclusive of experience in ASC and certainly does not preclude the presence and communications of the Other in all its forms.

But the questions raised about the correlations of first-person reports of ASC with scientific neurobiology, even given a neurophenomenological framework, are and will remain unsettled, as they rest on choices of episteme which in turn reflect

fundamentally different apprehensions of reality, and the knowledge that is possible about reality.

Perhaps Varela's summation at the end of *Principles of Biological Autonomy* can assist in holding these questions in suspension:

Our "knowledge," whatever rational meaning we give that term, must begin with experience, and with cuts within our experience—such as, for instance, the cut we make between the part of our experience that we come to call "ourself" and all the rest of our experience, which we then call our "world." Hence, this world of ours, no matter how we structure it, no matter how well we manage to keep it stable with permanent object and recurrent interactions, is by definition a world codependent with our experience, and not the ontological reality of which philosophers and scientists alike have dreamed. All of this boils down, actually, to a realization that although the world does look solid and regular, when we come to examine it there is no fixed point of reference to which it can be pinned down; it is nowhere substantial or solid. The whole of experience reveals the codependent and relative quality of our knowledge, truly a reflection of our individual and collective actions.

Many shy away at this point from following the logic of this argument, for they see the spectre of solipsism arising, of wild subjectivism, the ghost of anarchism. This, I submit, is pure misinterpretation of both the empirical record and philosophical arguments (Varela 1979).

6 Xenolinguistics

The thing makes linguistic objects it sheds syntactical objectification so they come toward you they divide they merge they're bounding they're screaming they're squeaking they hold out objects which they sing into existence or which they pull out of some other place and these things are like jewels and lights but also like consommé and old farts and yesterday and high speed. . . Terence McKenna (McKenna 1998).

Xenolinguistics, a term borrowed from science fiction, denotes the study of non-human or alien languages.

6.1 Novel Linguistic Forms

Xenolinguistics embeds the assumption that language is a much broader concept than *natural* language. For all its affordances, diversity, and fecundity in creating all of Culture, including its own powerful offspring, the formalisms of mathematics, logic and the binary codes that reflexively manipulate these forms, natural language emerges from an organism, homo sapiens, who is linguistically structured, who is *in-formed*, as Francisco Varela uses the term, all the way down. So it is with all due respect to the mother tongue of humanity, that I include under the rubric *language* some examples of linguistic phenomena manifesting in psychedelic states as most *unnatural*. A second assumption is that language it/self, in the sense of natural language, and language in the broader sense which will unfold below, is undergoing an evolutionary process.

The observation, description, and interpretation of linguistic phenomena in the psychedelic sphere takes place on shifting sand. The psychedelic states, through chemical action on our neurotransmitter systems, disrupt (one of the forms of unspeakability) the functioning of the natural language symbolic system; destabilize the experience of self (the *who is observing?* and *who are those Others?*), and transfigure the perceptual milieu (the *what was that?* and hence the assignment of reality), sometimes to a spectacularly alien degree. Natural language cannot by

definition address the unspeakable, but the Unspeakable (which Terence McKenna sometimes conflates with the Other) can address us as linguistic creatures—on its own terms, at its own behest, with its own timing, and utilizing its own symbolic systems.

Psychedelics can transport one beyond the veil of natural language, into the Unspeakable. This unspeakability is often framed as a communication deficit, where natural language is viewed as insufficient to convey the lived experience of the psychedelic sphere. I view this “bug” as a “feature,” an opportunity to become aware of the other channels of communication, both those available at baseline, such as body language, and those opened or enhanced in the psychedelic experience.

In their highest strangeness, these linguistic objects precipitate an ontological rupture, demanding a determination of status: is this perception of—a machine elf, for instance—something *human* or something *non-human*: the alien. In the dilemma, either horn is too uncomfortable to occupy for long. If this unspeakably bizarre translanguistic object is just (!) an aspect of my /self which is yet beyond the power of any imaginative leap to imagine this—*thing*—as an aspect of anything that is or could possibly be categorized as “*human*,” or “*me*,” then this is a self-concept that myself-at-baseline instinctively rejects as utterly impossible. But in that rejection, the other option, equally hard to accept, rears its head: this phenomenon is a result of the Other as Alien making actual contact—with a language lesson? Is this payback? The only appropriate reply to the kitsch of the Voyager space probe drawings? Rational discourse breaks down, the cosmic giggle threatens to erupt, and the dilemma persists: self (Self) (s(elves) or Other? *Who speaks? Who listens?*

When I have folded the maps of natural language, the mindbogglingly novel territory of the psychedelic sphere shines forth, nameless, but not unknowable. To

practice as a xenolinguist (the technoetic practice) is precisely to learn to communicate *with* the Unspeakable, and then *about* the Unspeakable (such as the description of the dilemma above), even if it takes multiple voices (some of them speaking in alien tongues) and several interwoven levels of reality to make the transdisciplinary attempt.

we are who you will become (AD_99.07.10 MDMA)

The idea of the *alien* is linked to the *novel*, a concept central to Terence McKenna's construction of the universe as a novelty producing and novelty conserving process. Fractally structured in this universal process, the *telos* of human history is producing novelty at an exponential rate through an extension of the symbolizing, fundamentally linguistic nature of the historical process, self-similar at all levels of structure. The forms of life, as Varela describes them, appear as a linguistic fractal, evolving over time by virtue of their eminently *composable* structure, and history, the sum of our symbolizing in culture, appears as a fractal of time.

The idea of the *novel* is linked to the *emergent*: how the novel *emerges* through the self-organization of a multiplicity of simple processes, *linguistic* and algorithmic processes, into complex structures. Linguistic phenomena in the psychedelic sphere imbricate these qualities of the alien, the novel, and the complex.

Terence McKenna's life work could be described as the unpacking of a DMT experience in the late '60's (and many others to follow). The experience of the Others and their linguistic objects, and the ontological dilemma presented, informs a central axis of his thought.

But what is astonishing and immediately riveting is that in this place there are entities - there are these things, which I call "self transforming machine elves," And what they were doing, was they were making objects come into existence by singing them into existence. Objects which looked like Faberge eggs from Mars, morphing themselves with Mandaean alphabetical structures. They looked like the concrescence of

linguistic intentionality put through a kind of hyperdimensional transform into three-dimensional space. And these little machines offered themselves to me. And I realized when I looked at them, that if I could bring just one of these little trinkets back, nothing would ever be quite the same again (McKenna 1993).

The combined shock of novelty and familiarity occurred when I first encountered McKenna's descriptions of DMT-catalyzed visual language, after the Glide "download," in 1998. Shortly after I had re-entered the psychedelic sphere in 1999, I was scouring the web for any information on visual psychedelic languages. It was simply a shock of some proportion to find another individual who had experienced similar phenomena, paralleling my own, a person seemingly inhabiting an adjacent myth of psychedelic language.⁴³ The nature of the parallels will unfold in the progress of this chapter, in the description of two psychedelic symbolic systems: McKenna's Timewave Zero, and Slattery's Glide.

I return to the topic of the evolution of human language and symbolizing activity, especially as evidenced in abstract paleoart, a subject that has not grown less speculative since addressed in Chapter 5. The effort is to not to prove—or falsify—the McKenna "shaggy primate story," of the catalysis of linguistic ability in early primates by the ingestion of psychedelic substances, but to view all speculations as narratives or competing myths trying to compile the scant supply of facts into a recognizable pattern. The aim is not to argue toward a single definitive interpretation of these phenomena. The effort would be premature in the case of psychedelic knowledge, and impossible in the "origin of language" arena. The aim is to illuminate a process, a novelty-creating process that evolves life and language, the Bios and the Logos, a self-describing process that has carried us improbably from whatever the "pre-biotic" state might be to a human organism sitting at a computer, surrounded by Culture, describing the process of self-

⁴³ The nature of the parallels will unfold in the progress of this chapter, in the description of two psychedelic symbolic systems: McKenna's Timewave Zero, and Slattery's Glide.

description. The process, though wholly constrained by the syntax of DNA, has been unpredictable, i.e., novel in the extreme⁴⁴, improbable in its wild diversity, given the high *novelty* quotient of results, but clearly not impossible, because, after all, I am typing these words, with knowledge of both calliopes and paramecia and the language to name them.

6.2 Language in the Warp

The effects of various psychoactive substances on perception—visual, aural, gustatory—have been widely studied and noted in the literature, both scientific and in personal experience reports. The effects of psychoactives on natural language functioning—speaking and listening, reading and writing, have received far less attention.

6.2.1 Effects on Natural Language

A 1970 article by Stanley Krippner, “The Effects of Psychedelic Experience on Language Functioning,” reveals a theme that can be seen in many psychedelic studies: the extreme variability of the effect of a particular substance across even a small group of people where dose and setting are much the same. This variability is evident in many of the reports of those in Alexander Shulgin’s research groups where the same drug, in the same setting, can elicit a broad spectrum of experience (Shulgin and Shulgin 1991). The same variability can be noted in Rick Strassman’s DMT research, where dose and setting were relatively tightly controlled (Strassman 2001). Krippner finds the same variability in his study of effects on natural language functioning. At the time Krippner was writing, the primary drug of study was LSD; mescaline, peyote, psilocybin and cannabis were also in the

⁴⁴ The question *How do you extrapolate a calliope from a paramecium?* is similar to the question *How do you extrapolate an alien being from a human being?* We can reverse-engineer our evolutionary steps—in part—but the prediction of our forms in the future will remain out of reach.

literature. Ayahuasca was little known and reported, and Sasha Shulgin had not yet enriched our psychedelic pharmacopeia with hundreds of new syntheses of compounds exhibiting a wide range of effects.

Krippner used Masters and Houston's 1966 model of four levels of mental functioning in psychedelic states to parse the language experiences he presents. Defining models of sequential "levels" and "states" of ASC was part of the intellectual enterprise of the 1960's and 1970's (Masters and Houston 1966; Fischer 1971; Fischer 1978; Tart 1980). Masters and Houston propose a four level model: 1) *sensory*—changed awareness of body, space and time, heightened sense impression, and synaesthesia; 2) *recollective-analytic*—reliving parts of the past, new insights about self, work, relationships; 3) *symbolic*—visual imagery involving history and legend or evolutionary processes, ritual processes; and 4) *integral/mystical*—religious experience, white light and unitive experience (Masters and Houston 1966). Krippner then maps the various (natural) language modalities—listening, speaking, reading, and writing against these states.

The language used in guiding a psychedelic experience is seen as exceptionally potent to individuals in ASC. The language used can program the trip profoundly, positively or negatively; an effect Doyle calls "an extraordinary sensitivity to initial rhetorical conditions" (Doyle 2010). A particularly vivid and sadistic experiment reported by Masters and Houston is cited by Krippner:

The subject was told by the psychiatrist that he would have "a terrible, terrible experience" filled with "strong anxiety and delusions." The drug was administered in an antiseptic hospital room with several observers in white coats watching him. As the effects came on, the psychiatrist asked such questions as, "Is your anxiety increasing?" At the end of the experiment, the subject was in a state of panic. The psychiatrist announced to the group is indeed a "psychotomimetic" substance, which induces psychotic behavior (Krippner 1970).

I am reminded of Terence McKenna's quip, attributed to Timothy Leary, "LSD is a psychedelic drug which occasionally causes psychotic behavior in people who have NOT taken it."

In other examples, Krippner reports opposite sets of effects: the loss of reading ability in one case, and an exquisite enhancement of reading in the same case, at a different point in the trip; spoken language enhanced or attenuated; a greater ability to distinguish between word and object in one case, and a reversion to "primitive thinking," including the union of word and object, in another. Krippner cites two interesting cases of enhanced language learning ability: one, a man who learned German over the course of a long LSD trip, and another person who practiced typing to an expert level, similarly dosed.

Fischer and Martindale's 1977 study of a single subject's experience of writing prose (four instances) under the influence of psilocybin compared his prose sample at baseline to that in the "aroused" state. The results were interpreted (through a quantitative analysis of such linguistic dimensions as the relative concreteness or abstraction in noun phrases; length of sentences and clauses; and topical organization) as showing an increase in the psychoanalytical category "primary process" (concrete, free associative, drive-dominated, autistic) and a reduction in "secondary process" (abstract, analytic, purposeful, reality oriented) (Fischer 1977). A 1970 study of personality traits related to the effects of psilocybin on the changes in size and pressure of handwriting showed different results for different personality types, measured by the Meyer-Briggs indicator. (Fischer 1970; Fischer 1977)

My experience with handwriting under psilocybin was illustrated earlier.

[Appendix I, Figure 2]

From the perspective of my own practice, the shift in handwriting from the formation of words to the dissolution of the line and the appearance of visual puns under the internal “pressure” of the felt serpentine movement of flowing energy I call “the rainbow serpent,” was experienced many times over a period of years. I have come to interpret this phenomenon as a fundamental linguistic movement underlying writing and drawing which easily “takes over” from the inscription of natural language in psilocybinetic states, a kind of gestural glossolalia.

ttttt ttttttt⁴⁵

tttttttttttt here is the lines the transmission being here ray-diate the dimensional script so words shiver across themselves transmit mitten tran-smitten manuscript script of the full filament (AD_05.03.25 5 gm dried Stropharia cubensis)

Charles Tart’s 1971 study of marijuana intoxication (Tart 1971), in addition to pointing out the common phenomena of forgetting the beginning of a sentence further in, finds that talking runs a range between saying more profound things—and giggling; talking more than at baseline—or less; and socializing more—or feeling isolated. Again, we see a full spectrum of effects, not easily generalizable.

Benny Shanon’s phenomenology of the ayahuasca experience brings other linguistic phenomena to light. He describes the “slight adverse cognitive effects” that can occur:

Usually, during ayahuasca sessions people do not talk. When they do, however, some problems of speech coordination may be exhibited. For instance, speakers may have difficulty in keeping track of different lines of thought that they express and some slips in their verbal output may be noted. . . Also encountered is perseveration, that is, the ongoing repetition of a given pattern of behavior and difficulty in breaking out of it. Repetitive singing or excessive talking may be regarded as manifestations of this (Shanon 2002).

⁴⁵ These were drawn large: a visual pun for high power transmission lines.

In terms of the linguistic content of visions, Shanon identifies a category of "Books, Scripts, and Symbols."

Many people report seeing inscriptions of letters, numerals, or other signs. Both in my case and in that of my informants, on some occasions the characters seen were made of, or engraved in, gold or silver. Often these are in scripts or languages that the Ayahuasca drinker characterizes as ones he or she cannot decipher or understand. Some informants say that they do manage to decipher and understand messages in scripts and/or languages that actually are not familiar to them. (Shanon 2002)

In discussing the dynamics of the manner in which the visions of the ayahuasca experience develop, Shanon describes in some detail the thought sequences that can illustrate an associative process like punning he calls the "double-face configuration." The medium—the phonological form of the word—and its meaning become "decoupled," then re-connected to a different meaning, placing the cognizer in a new semantic domain. "Thus, the decoupling has generated unplanned novelty in the thought process."

the scripting of dimension all script—tase the translation to the script (AD__05.03.19)

Shanon mentions an example of visionary content that relates the linguistic to Laughlin's description of dots. We are approaching the presentationally symbolic, and leaving the realm of natural language.

There is a code here—like that of Morse or the genetic code. The code is constituted by many, many dots, the density between which varies. All this is a language calling to be deciphered (Shanon 2002).

6.2.2 Eloquence

Eloquence has been discussed in Appendix IV, "Contact with the Other:

Knowledge Acquisition in the Psychedelic Sphere," especially in regard to Henry Munn's accounts of Maria Sabina's "ecstatic significations"—language brought to a heightened potency—what Sabina called "curing with words." And, as Richard Doyle proposes in the ecodelic hypothesis, eloquence is deep in nature as an

adjunct to the organism's—plant and animal—strategy for food (eating and avoidance of being eaten) and sexual selection, the two primal survival activities. These eloquent and highly specific forms of communication often intermix the dual motives of food and sex, as nectar-drinking and flower pollination become part of the same symbiotic act. The example of the complex symbiotic interactions of three species in the life-cycle of the brazil nut tree highlight these interspecies communication systems.⁴⁶

6.2.3 Glossolalia

Wikipedia defines glossolalia or speaking in tongues as “the fluid vocalizing (or, less commonly, the writing) of speech-like syllables, often as part of religious practice. Though some consider these utterances to be meaningless, others consider them to be a holy language.” These utterances are often associated with ASC, and their interpretation depends on the framework of the interpreter. To the psychologist, they can be heard as pathological, dissociative states; to the ethnographer confronted with the culturally bizarre they have been described as hysteria, frenzy, or “utter gibberish.” It appears to be a broad, cross-cultural phenomenon of considerable antiquity; the appearance of glossolalic utterances in shamanic cultures relating to communication with spirits would indicate roots in the distant past. The Biblical description in *Acts* of the original Pentecostal

⁴⁶ Female orchid bees respond to the fragrance of the Brazil nut tree's brief flowering of creamy yellow flowers; they are also the only insects who can pull back the tight hood and penetrate the center of the flower. The third partner in the Brazil nut tree's cycle of survival is the agouti, a large rodent that lives on the forest floor, eats the fruit encased in rock-hard shells that fall to the ground. It buries what it cannot eat; those that it forgets to collect can germinate and produce the next generation of Brazil nut trees. The highly specific chemical languages produces sight, scent, and taste unite, in unique patterns, into “conversations” of highly diverse species. High linguistic diversity and high biodiversity can be observed in the species-rich environment. Marent, T. (2006). Rainforest. New York, Dorling Kindersley.

speaking in tongues brought on by the Holy Spirit is another cultural formation of the Other speaking through the entranced person or persons (Goodman 1972).

Felicitas Goodman's cross-cultural study of glossolalia includes examples from Umbanda practices in Brazil, and Pentacostal churches in Mexico City, a Maya village in the Yucatan, and Texas. One interesting example of glossolalia was on a tape she analyzed made during the LSD session of a 'Mr. R.' Goodman's conclusion was that this vocalization was different than the pentacostal glossolalias she had been studying, and, to her, sounded like a foreign language. Mr. R., however, "came to the conclusion that he had somehow experienced man's early history—that he had accidentally recreated the *Ursprache*, the original language of mankind" (Goodman 1972).

Terence McKenna describes a psychedelic glossolalia:

And what they meant was: use your voice to make an object. And as I understood I felt a bubble kind of grow inside of me. And I watched these little elf tykes jumping in and out of my chest (they liked to do that to reassure you), and they said, Do it! And I felt language rise up in me that was unhooked from English and I began to speak like this: Eeeoo ded hwauopsy mectoph, mectagin dupwoxin, moi phoi wops eppepepekin gitto phepsy demego doi aga din a doich demoj aga donc heedey obectdee doohueana. (Or words to that effect). And I wondered then what it all meant, and why it felt so good (if it didn't mean anything). And I thought about it a few years, actually, and I decided, you know, that meaning and language are two different things. And that what the alien voice in the psychedelic experience wants to reveal is the syntactical nature of reality. That the real secret of magic, is that the world is made of words, and that if you know the words that the world is made of, you make of it whatever you wish!" (McKenna 1993).

6.3 Evolution of Language

Language, for the purpose of this very specific discussion, is deep in nature, its expressive forms evolving from highly complex forms of chemical and electrical communication within a single organism, between any organism and the environment with which it must communicate to survive, and between organisms, of the same or of cooperating or competing species.

6.3.1 Prehistory

Psychedelic use has been connected with our earliest symbolic artifacts, (especially in rock art of Paleolithic cultures on all continents) in the resemblance of the abstract signs to Kluver's form constants. (cf. Section 5.3.8). Genevieve von Petzinger's anthropological study of these abstract signs in French parietal art suggest that these abstract signs represent early symbolic communication.

Repeated patterning is one of the criteria used when looking to identify symbolic behaviour in scratch marks and other engravings on portable items during the Middle and early Upper Paleolithic" noting that while "isolated instances are not sufficient evidence, multiple examples of similar patterning are required, since these are what imply that there was a shared meaning or understanding (von Petzinger 2009).

If these forms (von Petzinger identifies 28 distinct marks) are indeed symbolic, they may represent a very early form of writing; if they are also connected to psychedelic use and the forms that arise therein, we have a suggestive connection with McKenna's hypothesis of psychedelic use as a catalyst for language evolution in early humans.

My contention is that mutation-causing, psychoactive chemical compounds in the early human diet directly influenced the rapid reorganization of the brain's information-processing capacities. Alkaloids in plants, specifically the hallucinogenic compounds such as psilocybin, dimethyltryptamine (DMT), and harmaline, could be the chemical factors in the protohuman diet that catalyzed the emergence of human self-reflection. The action of hallucinogens present in many common plants enhanced our information-processing activity, or environmental sensitivity, and thus contributed to the sudden expansion of the human brain size. At a later stage in this same process, hallucinogens acted as catalysts in the development of imagination, fueling the creation of internal stratagems and hopes that may well have synergized the emergence of language and religion⁴⁷ (McKenna 1992b).

Robert Bednarik's exhaustively researched rock art studies around the world propose a theory of the origins of symbol making and language that push the date

⁴⁷ There is research, reviewed by David Nichols, showing that LSD affects gene expression. Nichols, D. E. (2004). "Hallucinogens." Pharmacol. Ther. 101(2): 131-181.

for our symbolizing back to the one million year BP⁴⁸ mark. He posits a long gradual history of language and symbol using (cultural) development and sharply critiques the “leap into language” hypothesis which has been the “standard model” in archeology, tying the development of language to the development of iconic art in the caves of Europe beginning 35,000 BP. His critique is based on evidence from the development of technologies, culture, genetic research, and physical anthropology. As he sees it,

In anthropocentric and humanistic disciplines, the definitions of what indicates characteristics such as culture or language are routinely revised in response to the threat that such characteristics might be attributed to non-human interloper species. In this case, that practice is extended to “pre-modern” homonids that need to be excluded from some perceived exalted status of modern humans. In reality, there can be no doubt that humans do not possess one single definable, measurable or observable characteristic that is not shared by another species. The humanist inclination of maintaining, perhaps subconsciously, a qualitative separation between humans and non-human animals (or between “Moderns” and archaic *H. sapiens*) is ultimately attributable to the religio-cultural individual reality scholars exist in (Bednarik 2006).

Bednarik acknowledges a connection between the rock art symbols and entoptic phenomena, but sees those marks as early symbolizing activity (of which we can only guess the meanings) rather than “just” an expression of an ASC.

The modernity of human behavior is not determined by skeletal evidence, not even by stone tool technologies. It is indicated by the “storage” of symbolism outside the brain, especially in the form of paleoart (the collective term defining all art-like manifestations of the remote human past). This argument was first advanced by Merlin Donald, who proposed a complex model in which he posited three basic stages of construction of conceptual space using language. The first, according to him, is mimetic symbol use without symbol creation, the second is the construction of conceptual space using language. The third involves the deposition of symbolic properties in material culture, capable of intervening in social behaviour, or in communicating meaning (Bednarik 2006).

Cupules—dot-like excavations in rock faces—are prevalent the world over, and, because they take a long time to deteriorate, are some of our oldest surviving

⁴⁸ BP—“before present.” This notation is used in archaeology to avoid the “BC” and “AD” confusions.

symbolic remnants.⁴⁹ Research in archaeoastronomy attempts to map the presence and placement of cupules as markers of astronomical events such as solstices, indicating a high level of symbolic processes very early in our cultural evolution (Hammond 2003). Hammond's article also mentions—without interpretation—the presence of *Datura meteloides* (a powerful psychedelic) growing near the base of the rock.

[Appendix I, Figure 27.]

As McKenna narrates our early history, when we moved out into grasslands, and became omnivores, our sampling of any potential food source would have brought us in contact with varieties of psilocybin mushrooms. As we formed relations with cattle, leading to domestication, varieties of coprophilous mushrooms, such as *Stropharia cubensis*, would have become more readily available.⁵⁰ McKenna analyzes some of the specific effects of psilocybin at different dose levels to make his argument.

At whatever dose the mushroom was used, it possesses the magical property of conferring adaptive advantages upon its archaic users and their group. Increased visual acuity, sexual arousal, and access to the transcendent Other led to success in

⁴⁹ Bednarik carefully argues that the record in rock art must always be viewed in light of the physical conditions for the survival of marks. Those painted, as in the caves of France and Spain, are more fragile, and survived due to the special conditions of the type of cave, whereas other similar painting may well have perished in other caves around the world with different conditions of preservation. All our timelines for rock art are of those forms which survived the erosions of time.

⁵⁰ Support for this hypothesis is found in Michael Winkelman's work on shamanism. "The modern worldwide distribution alone, [of psychedelic plants] however, does not establish the worldwide distribution in antiquity. This pre-modern distribution and consumption of these psychedelic plants is illustrated by converging evidence, namely: 1) species unique to specific areas of the world; and 2) indigenous traditions of sacred use of these substances that have great antiquity, as attested to in language, art, and physical residues. (For instance, in one of the areas of principal use-- Mesoamerica-- there are more than 200 indigenous names for the variety of psilocybin containing mushrooms found in the region. While many of these are Spanish words, there are also a variety of indigenous terms that attest to their pre-modern presence. Furthermore, the central role of these mushrooms in ancient art and iconography attests to their central cultural importance in the distant past." Winkelman, M. (2000). Shamanism: The Neural Ecology of Consciousness and Healing. Westport, Connecticut, Bergin & Garvey.

obtaining food, sexual prowess and stamina, abundance of offspring, and access to realms of supernatural power. All of these advantages can be easily self-regulated through manipulation of dosage and frequency of ingestion (McKenna 1992b).

Michael Winkelman shares this position that psychedelic use conferred adaptive advantage to our ancestors. (cf. Section 4.3)

McKenna places the shaman at the center of both psychedelic management (Eliade's "techniques of ecstasy") and linguistic prowess; the two go hand in hand.

In this realm, language, ideas, and meaning have greater power than cause and effect. Sympathies, resonances, intentions, and personal will are linguistically magnified through poetic rhetoric. The imagination is invoked and sometimes its forms are beheld visibly. . . . For the shaman, the cosmos is a tale that becomes true as it is told and as it tells itself (McKenna 1992b).

Archeologist Robert Bednarik hypothesizes a phase where symbolizing, natural language, and the forms of culture take over the slow evolutionary processes of Nature as a period where we inadvertently domesticated ourselves, with startling consequences. His theory attempts to explain the shift, over a relatively short period of time ($\pm 50,000$ years) of the human body from a "robust" form to a "gracile" form, a process that re-occurred on every continent we populated, though the shifts were at different time periods in different locales. The standard model in archeology has it that around 60,000 years ago, a "gracile" and "superior" group of humans, representing our "modern" form crossed from Africa, and conquered the less developed Neanderthals, who disappeared by 30,000 BP. Whether Neanderthals could or could not interbreed with the "graciles" is under debate. Bednarik argues from the material record that Neanderthals had language, and in fact had the characteristics that Nature favors for fitness and survival: stronger bodies and bigger brains. His idea is that, with the advent of culture, came self-awareness and the building of complex cultural systems, including aesthetic values and values of social standing, and that these choices influenced our mating choices. We thereby self-selected ourselves, within our cultural systems,

establishing trends of body changes by our choices, in the same manner that we induce changes in cattle, dogs, and horses by selective breeding for desirable characteristics. The results were: smaller bodies and smaller brains than the Neanderthal, actually a regressive trend. He points out that the increase in brain size which is found in the fossil record and which occurs with exceptional rapidity in evolutionary time, could have been a function of selection for the bigger brain and the capacity for language (and culture) which was developing, even though the evolutionary tradeoff—skull size that made childbearing much more dangerous, and an extended period of dependency for the neonate, both characteristics that are not in our favor as fitness criteria (Bednarik 2006). It is an interesting idea when one looks at our history of exponentially rapid cultural development.

6.3.2 Media

I have looked backward to the earliest surviving symbols in human history as one perspective on the evolution of language and linguistic forms, possibly connected to psychedelic use, and to a view of the biosphere per Varela which takes “the linguistic” all the way down into the structure of organisms and their communications at all levels. Mark Pesce’s reflections on the history, especially the recent history, of communication technologies takes us into our present moment of the Cambrian explosion of linguistic forms.

That’s what those 75,000 year-old squiggly lines on a piece of stone imply: that our internal linguistic capability, which gave us language, had overflowed onto the material world, and that the material world had been consumed by our linguistic capability. This is an important point, perhaps the central point I’m trying to make today: everything you look out upon from your eyes, exists less as a physical reality than as a construction of linguistic form. This is what Terence McKenna meant when he said that the world is made of words, and that if you know the right words, you can make of the world whatever you will (Pesce 2002).

A cybernetic circle between new technologies, and the development of new formal sign systems to describe, explain, and/or construct these technologies, is a feature of this linguistic evolutionary process, from the computer, to the sequencing, manipulation, and uses of the genomes of living forms, and the miniaturization of magic we are calling nanotechnology. In Mark Pesce's phrase, the fundamental domains of life and of matter have become "linguistically pliable" (Pesce 2002).

Pesce, along with Tony Parisi, and a team of open source developers, created VRML, the Virtual Reality Markup Language, bringing the two-dimensional computer image into a three-dimensional format, a "dimensional leap." Pesce documents their use of LSD as a problem-solving adjunct in this creative process.

I actually talked it out with other people while we were tripping. And this is a case of specific usage. I'd go back into the space and take a look at specific parts of it again. And, the funny thing is I'd be very methodical and rational -- which is not my normal mode of experience. Normally I'm just "experiential." But in these cases I was very methodical.

MAPS: While you were tripping?

Mark: Yes! And I had to go back to the person I was working with, who was my partner in the endeavor when we were doing it. He understood that, and came right into the space with me, and we were methodical. We were giggly and all that stuff, but we were methodical about it. And so we were able to really say, "Okay, well here's this block right here. Okay, let's take that block and go from one side of the block to the other side of the block." And we did. We did this on a number of occasions over about a month period. And managed to take everything that I had gotten and really get it out" (Pesce 1999).

This instance of the development of a computer language in an ASC represents another application of xenolinguistic techniques: the use of psychedelics as problem-solving adjuncts in the creation of a new symbolic system—in this case, one enabling a new form of "reality."

Pesce describes DNA as linguistic, and as a very slow memory, the recorded history of interactions with the environment.

For four billion years, DNA was the recording mechanism of history, the memory of biology. As soon as we developed language, we no longer needed the slower form of DNA for memory; we could use the much faster form of language, which produced with it a deep sense of memory within the individual – since the linguistic symbols could be contained within the human mind.

So, suddenly, homo sapiens is not just a biological entity working within the matrix of DNA and its slow historical recording, but now bursts through and starts processing its interactions within the environment 10 million times faster than ever before (Pesce 2002).Z

Pesce describes this shift into culture and its effects on biology.

For all of evolutionary time, information had to travel the slow route through biology – through the bios - before it would be coded into our DNA. Now we had this additional process – which we call the logos, the Word – which was a completely new thing, and not something that the bios had any time prepare for. . .The natural environment of the first humans was entirely and utterly replaced by a symbol-driven environment. The post-modern philosophers claim that this is a new thing, that the Disneyfication of the world has overloaded the natural world with the mediasphere. But this isn't a new thing, even if our recognition of it is; as long as shaman and storytellers have been spinning myths that tell us who and what we are, the world ceased to exist as nature, and became a linguistic element in the story of homo sapiens (Pesce 2002).

The history of communication technologies, of *media*, as we have most recently called this collection of linguistic accelerants, forms, and practices which have permeated our daily lives in ways that we cannot predict anymore, unless to state the obvious: there will be more. And the *more* arrives faster and faster. The presence and effects of the electronic surround does not need to be argued here; it is assumed as basic knowledge for the audience of this thesis.

Pesce's vision of the next adventure of the Logos concerns the extension of our linguistic ability back into the language of molecules: nanotechnology.

This is the coming linguistic revolution in technology, because, at this point, the entire fabric of the material world becomes linguistically pliable. Anything you see, anywhere, animate, or inanimate, will have within it the capacity to be entirely transformed by a rearrangement of its atoms into another form, a form which obeys the dictates of linguistic intent. (Pesce 2002)

Matter, it/self, is composable.

Pesce, always the visionary futurist, speaking to a psychedelically informed audience, places the evolutionary transformations of language at the center of an eschatological vision he shares with McKenna:

For we find ourselves in an increasingly narrow space, and our freedom of movement is more and more confined by both linguistic constructions and technological mechanisms; and even our DNA is coming to be controlled. . . Because we have been there, we know we need not be afraid, or give in to amazement, and can avoid being hypnotized by speed or pretty blinking lights. Talking to aliens? Been there. The end of history? Been there, too. Maybe all the bizarre trips that we've all had are just what we need, even as humanity enters its last, strange trip (Pesce 2002).

Language, which Pesce describes as the living Logos, with its own intentionality, a mind of its own, is leading us to the edge of apocalypse. His description of the all-pervasive media ecology in which we live our lives delineates our separation from the Bios in stark terms.

6.3.3 Language, Culture, Nature

From a psychedelic perspective, I have seen and felt what Richard Doyle describes as the ecodelic insight—the perception of the dense interconnectedness of all aspects of nature and the restoration of our place as a part of nature, thoroughly woven into its workings on all levels, and responsible for our effects thereon—as compatible with Varela's view of “the linguistic” as the means by which this system of systems—interacting, nested, scalar—is connected and in continual interchange through all systems from the molecular to the molar. The ecodelic insight, reliably, though not universally, produced by psychedelic experience across substances and in varied settings, can heal the gulf by which we have arguably set ourselves further and further apart from nature, superior to its workings, and currently engaged in its commodification and control.

Terence McKenna (in concert with feminists) takes Francis Bacon to task for his founding “bad attitude.”

Where I part company with science is at that moment when Francis Bacon, who was the great theoretician of modern science wrote: "Nature is a goddess that we may lead to the rack. . .and there tease, torture, and torment from her her secrets" (Harpignies 2007).

The extent to which Nature is conceived as a set of random processes operating without *telos* to be a set of resources for the human agenda, subject to ownership, a viewpoint which, however one wishes to identify the source—as a product of Enlightenment rationalism, or of scriptural necessity—is the extent to which our alienation is completed, and our potential for damage to the biosphere maximized. We are East of Eden by many miles and millennia, but even Eden is portrayed with God's delegation of responsibility to Man-in-Charge. This disconnect, this exile, and the imbalances it has produced, is the ethical dimension of the ecodelic insight.

The apparent inability of humans to perceive the densely interconnected nature of their habitat threatens not only said ecosystem but the very self definition of humanity itself as *homo faber*, an organism who actively creates, rather than is simply created by, her environment. Faced with overwhelming evidence of climatic change, one would expect an outburst of human agency, an ordering of the world according to the specifications of *Homo Sapiens* – the species, who, after all, knows what it is doing (Doyle 2010).

I relate this form of narcissistic anthropocentrism to the same viewpoint, critiqued by Robert Bednarik, that describes humans as the only linguistically endowed creatures, the only creatures with feelings to be respected, and the only creatures with minds, much less, possessed with (or by) consciousness.

This tendency to set ourselves apart from the rest of nature which was fully in place by the time Darwin dared to differ, and our subsequent evolutionary explorations in paleontology and genetics, made animals—our food and our domesticated slaves—into kin. Creationism and the myth of Eden continue to attempt to rescue us from the shame of bestial relations, and the racially explicit "out of Africa" evolutionary scenario.

Charles Laughlin describes the evolution of symbolic forms as a progression toward formal sign systems in which “complete independence from stimulus-boundness and actual events in the world” raises the “adaptive power” of the human in our operational environment to a state where we are, on the one hand, *seemingly*, the top of the food chain, and controlling our environments to an unprecedented extent, and at the same time, accelerating toward unsustainability on many fronts. Our adaptive successes, unchecked by the “big” predators we have extinguished, and increasingly vulnerable to miniature predators on the microbial and viral scale which are adapting rapidly on their own survival agendas; our adolescent tendency to foul our nest; and our narcissistic self-image as the most, or, in fact, the only intelligent life-form on Earth (possibly in the Universe) do not bode well for the long haul, unless we begin to adapt to ourselves—a form of self-reflexive adaptation—as a threat to our own survival, a position in competition with engrained and competitive positions of what constitutes survival. Nature has tried and true remedies for overpopulation, exhaustion of resources, and failure to adapt.

Listening to nature is what shamanism is about. The planet yearns to communicate, and all nature is in fact language. We are somewhat anesthetized to this by our very introspective cultural style. Our whole focus of attention is inward, and so the natural world has fallen silent for most of us. Jean Paul Sartre said: “Nature is mute.” That, sadly, captures perfectly modernity’s relationship to nature, but still—if that isn’t the lamest statement made by a twentieth-century philosopher, I don’t know what is (Harpignies 2007).

Some of the indigenous peoples here really knew how to listen to the intelligence of the natural world. I think plants and mushrooms have intelligence and they want us to take care of the environment, and they want to communicate that to us in a way we can understand. When I use these mushrooms and other compounds, I get the message that the planet is in trouble, that we are approaching a huge catastrophe and that we’re all in this ship together. I get the sense that all these spirits are speaking to me, that the planet is calling out to us, asking us for help, to control our consumption, waste, and pollution. But we are so incredibly busy in our culture, we don’t know how to sit, be silent, and listen (Harpignies 2007).

We are no longer listening, but have projected that inattention on Nature:

“Nature is mute.” From this stance, reified by our literal encapsulation in culture and its artifacts (language, clothing, buildings, cities) it is difficult to perceive her languages, though they are ubiquitous.

Again and again in nature you see these complex chemical interactions resulting from evolution’s dynamic creativity, as organisms keep trying to adapt and devise strategies by trial and error to use and manipulate each other. Plants, facing a successful chemical defense by an insect, in turn elaborate over time even more complex toxins, perhaps targeted at other cellular targets, other enzymes, other receptor systems, and it goes on and on. Eventually you see the complex web of chemical interactions that characterize these floristic ecologies.

But what’s curious when it comes to the psychedelic plants is that these plants evolved neurotransmitter-type molecules that have remarkable properties to affect human brains long before there were nervous systems for them to interact with, long before there were nervous systems for them to interact with, long before there were neurotransmitters or brains. They must have originally developed these chemicals for some other reasons, to influence something in their environment, and, much later, when brains and receptor systems evolved, it turned out these plant chemicals had extraordinary capacities to be internal signaling mechanisms within brains. Instead of mediating signals between different organisms in the environment, they somehow became adapted to mediating signals between sets of receptor systems in human brains (Harpignies 2007).

Psilocybineticist Simon Powell states the case for Nature’s intelligence in terms of language, in what he calls “the fantastic hypothesis.” Powell is well aware of the discourse of “intelligent design” as a brand of monotheistic theology to which he does not subscribe. However, the perception of Nature, under the noetic conditions of psilocybin perception, has *telos* at the core of Nature.

Our aim now is to discover more about the nature and intent of the creative intelligence seemingly lurking behind the scenes of the ongoing reality process. This intelligence seems to be the causal force driving the formation of stable and enduring patterns of information throughout the fabric of Nature. Patterning processes reflect a fundamental tendency of Nature to foster the emergence of phenomena like stars, molecular compounds, organisms and even ideas. These patterns of information appear to behave according to various systems of logic such as ‘physio-logic’, ‘chemo-logic’, ‘bio-logic’ and ‘psycho-logic’.

The forms of logic cited above are language-like, computation-like and are enfolded within one another in a kind of nested hierarchy. The language-like logic of physics acts as a substrate from which the language-like logic of chemistry emerges. In turn the language-like logic of chemistry gives rise to the language-like logic of molecular biology. And so on. Eventually, highly advanced bio-logic leads to brains which

embody patterns of information we call minds. . .The fantastic hypothesis views reality, or Nature, as a meaningful and intelligent system as opposed to some mindless accident. According to the fantastic hypothesis, we are woven into an orchestrating tide of information, interconnected throughout. . .(Powell 2009).

Anthropologist Jeremy Narby's life-work as well can be read as his attempt to reconcile and integrate both forms of cognition: the epistemological practices of Ashininca shamanism, including his own ayahuasca experiences over many years, and his scientific training in anthropology (Narby 1999; Narby 2005).

Doyle, the McKennas, Stamets, Powell, and Narby's insights are intellectually and psychedelically based—products of both representational and presentational forms of symbolic cognition, to put it in Hunt's terminology.

6.3.4 The Call for New Language

To make biological survival possible, Mind at Large has to be funneled through the reducing valve of the brain and nervous system. What comes out at the other end is a measly trickle of the kind of consciousness which will help us to stay alive on the surface of this Particular planet. To formulate and express the contents of this reduced awareness, man has invented and endlessly elaborated those symbol-systems and implicit philosophies which we call languages. Every individual is at once the beneficiary and the victim of the linguistic tradition into which he has been born--the beneficiary inasmuch as language gives access to the accumulated records of other people's experience, the victim in so far as it confirms him in the belief that reduced awareness is the only awareness and as it bedevils his sense of reality, so that he is all too apt to take his concepts for data, his words for actual things. That which, in the language of religion, is called "this world" is the universe of reduced awareness, expressed, and, as it were, petrified by language. The various "other worlds," with which human beings erratically make contact are so many elements in the totality of the awareness belonging to Mind at Large. Most people, most of the time, know only what comes through the reducing valve and is consecrated as genuinely real by the local language. Aldous Huxley (Huxley 1974)

Psychonauts have their own reasons for calling for new language, but the tradition of dissatisfaction with our current state of natural language is not new. Umberto Eco, in his work *The Search for the Perfect Language*, gives an overview of the multivalent impulse toward perfection. Sacred perfection, as seen in the search for the language of Adam, or the original Hebrew, or the postulated Indo-European root language; philosophical perfection; and the perfection of pure rationality.

Leibniz searched for a “truly blind calculus,” blind, that is, to semantic variation—the polysemy of natural language.

Leibniz saw an analogy between the order of the world, that is, of truth, and the grammatical order of the symbols in language. Many have seen this as a version of the picture theory of language expounded by Wittgenstein in the *Tractatus*, according to which ‘a picture has a logico-pictorial form in common with what it depicts.’ Leibniz was thus the first to recognize that the value of his philosophical language was a function of its formal structure rather than of its terms; syntax, which he called *habitus* or propositional structure, was more important than semantics (Eco 1995).

Leibniz had published *Novissima sinica*, a collection of letters and studies by Jesuit missionaries in China. Father Joachim Bouvet, himself a missionary to China, seeing the work, sent Leibniz a treatise on the I Ching.

When Leibniz described to Bouvet his own research in binary arithmetic, that is, his calculus by 1 and 0 (of which he also praised the metaphysical ability to represent even the relation between God and nothingness), Bouvet perceived that this arithmetic might admirably explain the structure of the Chinese hexagrams as well. He sent Leibniz in 1701 (though Leibniz only received the communication in 1703) a letter to which he added a woodcut showing the disposition of the hexagrams.

In fact, the disposition of the hexagrams in the woodcut differs from that of the I Ching, nevertheless, this error allowed Leibniz to perceive a signifying sequence which he later illustrated in his *Explication de l'arithmétique binaire* (1703) (Eco 1995).

[Appendix I, Figures 28 and 29]

Eco is partially in error in his attribution of error regarding the sequence of hexagrams. While the texts that structure the I Ching are traditionally known as the King Wen sequence, the hexagram arrangement given by Leibniz by Bouvet is equally well known; Leibniz' version is the Fu Hsi or Earlier Heaven Sequence, elaborated by Shao Yong of the Number and Symbol School, Sung Dynasty.

Eco notes the interesting irony that Leibniz' work, the purely syntactical binary, developed into Boolean logic, and became the root logic for our linguistic machines, the computers, capable of specifying any manner of semantically distinct objects (such as his plane reservation).

Passing through the mathematical filter of Leibniz, reducing itself to pure syntax, his philosophical a priori language has finally managed to designate even an individual elephant. (Eco 1995)

I will return to the discussion of the I Ching, and its deep correlative structure in the elaboration of both Timewave Zero and the Glide symbolic systems, below.

6.3.5 Constructing Languages

One of the contexts for understanding xenolinguistical symbolic systems is the organized activity of language construction. In the end, perfection in language comes down to a highly personal vision. On the one hand, we have the ideal of the reduction of all language to a single language, perfectly rational, perfectly transparent to all users, perfectly regular, whose utterances can be understood identically with no misunderstandings possible. On the other hand, there is the delight in the polysemy of words, the slippages of puns and word play, poetry, recombinant novelty, the creation of entire new systems of language, for whatever purpose serves the creator, and the sharing of those with others—not with the desire to convert others to their use, but as, ultimately, an art form, “language construction.

The two symbolic systems described in detail, Timewave Zero and Glide are, in a sense, constructed languages from the psychedelic sphere. Each tells the story of an initial “download” experience; each was subsequently, and over a period of years, developed and interpreted by the downloadees into a fully elaborated system. And each responds to its own call for new language to elucidate the constructor’s experience of the psychedelic sphere, as well as to bring a specific knowledge back in a manner that can be communicated at baseline.

Constructing languages as a practice is detailed in Appendix VII: Constructed Language Practices.

[Appendix VII: Constructed Language Practices.]

6.3.6 Sensory Modalities of Xenolinguistic Presentation

Cross-modal perception in synaesthesia and cross-modal transfers in symbolic process have been discussed in Chapter 4. Harry Hunt sees all symbolic cognition as cross-modal and synaesthetically based, this modality being "essential to all metaphoric construction" (Hunt 1995).

The description of the "Voice of the Logos" in Horace Beach's doctoral dissertation, *Listening for the Logos: A Study of Reports of Audible Voices at High Doses of Psilocybin*, highlights the aural.

What mystics such as Plotinus are trying to explain is the following: while it is possible to experience directly. . . what has been described through history as the archetypes (as described by Plato, St. Augustine, and the various Buddhist-Hindu systems), or even the Absolute or noumenon of phenomena, or the Nondual . . . much of recorded historic experience of what has come to be known as divine inspiration or revelation, comes through one of the various manifestations or intermediaries of the Absolute in the form of gods, spirits, angels, or ancestors. At times they appear to humans, but they also reportedly can be experienced as disembodied voices (Beach 1996).

McKenna describes the voice of the Logos as a consistent feature of the psilocybin ASC.

We are going to go from a linguistic mode that is heard to a linguistic mode that is beheld. When this transition is complete, the ambiguity, the uncertainty, and the subterfuge that haunt our efforts at communication will be obsolete. And it will be in this environment of beheld communication that the new world of the Logos will be realized. This experience of an interior guiding voice with a higher level of knowledge is not alien in Western history; however, the intellectual adventure of the last thousand years has made an idea like that seem preposterous if not psychopathological (McKenna 1991).

McKenna frequently cites an allegory of Philo Judaeus that postulates this visual manifestation of meaning as "the more perfect Logos."

Psilocybin and DMT invoke the Logos, although DMT is more intense and more brief in its action. This means that they work directly on the language centers, so that an important aspect of the experience is the interior dialogue. As soon as one discovers this about psilocybin and about tryptamines in general, one must decide whether or

not to enter into this dialogue and to try and make sense of the incoming signal (McKenna 1992).

McKenna describes the experience of the passage from the aural to the visual in the tryptamine trance in detail as a cross-modal process. The DMT experience is for McKenna “the central mystery.”

On DMT these entities, these machine-like diminutive shape-shifting faceted machine elf type creatures that come bounding out of the state. . . they're elfin embodiments of syntactical intent. Somehow syntax which is usually the invisible architecture behind language has moved to the foreground and you can see it and its doing calisthenics and acrobatics in front of you its crawling all over you. . . What's happened is your categories have been scrambled and this thing which is normally supposed to be invisible and in the background and an abstraction has come forward and is doing handstands right in front of you. . . [The tryptamine entities are saying] do this thing, do this activity, do as we do. And you can sort of feel your intentionality reorganizing and you can feel this heat—it's quite akin to heartburn. I won't metaphysicize it ... but heat in your stomach and it moves up and your mouth flies open and you do—this stuff comes out which is a very highly articulated syntactically controlled non-English, non-European language behavior, not strictly speaking—though I call it glossolalia . . . it strictly speaking is not glossolalia. Glossolalia has been studied, and it's a trance-like state. On the floors of these Pentacostal churches in Guatemala they measured pools of saliva 16 inches across from people who were in ecstatic glossolalia. This is much more conscious, much more controlled. It's almost like a kind of spontaneous singing, but your mind steps aside and this linguistic stuff comes out and you can see it that's the amazing thing. It is not to be heard even though it is carried as an acoustical signal. Its meaning resides in what happens to it when the acoustical signal is processed by the visual cortex. That's the important thing. It is a new kind of language. It is a visible three-dimensional language. It's not something I ever heard about or any mystical tradition I ever heard about anticipated. It's as though the process or the project of language which according to academic linguists began no more than 50,000 years ago. The process of doing language in us is not yet finished. And this thing we do with small mouth noises and each of us consulting our own learned dictionary and quickly decoding each other's intent—this is a stumblebum, cobbled together, half-assed way to do language and what we're on the brink of or what these psychedelic states seem to hold out is a much more seamless kind of fusion of minds by generating topological manifolds that we look at rather than we localize into designated meaning (McKenna 1998).

This passage, quoted at length, contains many of the themes in McKenna's visual language epiphany: the activities of the “machine elves” (the Other) as source; the syntactical organization of reality; the idea of living language—language that has come alive (become autopoietic, and is behaving autonomously); a different form of glossolalia; the vision of a three-dimensional visual language; and the sense that language is evolving, literally “right before our eyes” in the tryptamine trance.

Marshall McLuhan thought of media ecology as

arranging various media to help each other so they won't cancel each other out, to buttress one medium with another. You might say, for example, that radio is a bigger help to literacy than television, but television might be a very wonderful aid to teaching languages. And so you can do some things on some media that you cannot do on others. And, therefore, if you watch the whole field, you can prevent this waste that comes by one canceling the other out (McLuhan 2004).

My view of media ecology is more Batesonian: mindful, full of complex—sometimes competitive, sometimes cooperative conversations among systems. These media systems are arising and going extinct on the fast forward evolutionary schedule of epigenetic forms of which Mark Pesce reminds us. Though connected always (parasitically or symbiotically) to human hosts, media organisms behave in ways that can be experienced autonomously: out of human control. Bruce Sterling announced the Dead Media Project at ISEA 1995, meant to catalogue the extinct forms of media we have been charging through even in the past few decades: Betamax which fell to VHS which succumbed to DVDs which are slipping toward extinction with TIVO and Netflix boxes.⁵¹ All of these terms—and their media—will likely slip from our lexicon as well. Social media are a new ground for competition. In so far as our entire “overload of information” is ported to digital media, this ephemerality is built in to the media “physiology” of hard drives and DVD's which have a half-life of 10—20 years maximum.

The trend toward the visual in our media ecology is a given: photography undergoes successive explosions—overtaking painting as the means of recording human personality and projects; exploding further with digital photography. TV moves radio into a new niche, the automobile, then elbows into the backseats of mini-vans. Mobility and media is the new mantra. Whatever is said here regarding

⁵¹ With perfect irony, the links to the Dead Media Project have themselves died.

media ecology is perfectly self-evident at the moment of writing—and will staledate rapidly.

With each new media form, new affordances appear. The development of animation techniques from cell-based labor intensive Disney productions and the direct manipulations on the film itself (painted, scratched, etc.) of the mid-20th century experimentation of Norman McLaren and Stan Brackage, have done a dimensional leap from 2D to 3D, tools now available to the student with pirated software which were once the exclusive property of the Hollywood studio system.

These rapidly evolving affordances become available for new forms of language to emerge. This was very much on Terence McKenna's mind in his last interview with Erik Davis, shortly before his death in 2000.

Ultimately, McKenna wants something more than trippy images. He hopes that computer graphics will blossom into a universal lingo, a language of constantly morphing hieroglyphic information that he claims to have glimpsed on high doses of mushrooms. "There is something about the formal dynamics of information that we do not understand. Something about how we process language holds us back. That's why I encourage everybody to think about computer animation, and think about it in practical terms. Because out of that will come a visual language rich enough to support a new form of human communication."

In McKenna's mind we are not just conjuring a new virtual language. We are also, in good old shamanic style, conjuring the ineffable Other. McKenna argues that the imagery of aliens and flying saucers - which spring up in numerous tripping reports as well as in pop technoculture - are symbols of the transcendental technologies we are on the verge of creating. In other words, we are producing the alien ourselves, from the virtual world of networked information (Davis 2000).

The Glide symbolic system, in its dynamic, moving and morphing visual forms could not have been brought into view without computer animation techniques, both two-dimensional and three-dimensional. The media ecology, springing from the linguistic machinery of the computer, created by humans, used by humans, and with a life of its own, presented an environment; new forms, new uses of the environment for new forms of language came forth. The feedback loops, the

structural couplings between humans and media forms are tight, multiple, and rapidly evolving.

6.4 The I Ching and Correlative Systems

Correlative thinking is generative in that it makes connections, new and novel or patchworked or perfect fits, incandescent isomorphisms, the marriage of two minds without embarrassment. Knowledge mingles, intermingles, attracts similar bits, all theories of correspondences may apply themselves to the task-at-hand: focus crystal vision on all our awareness of how the novel comes into being knowledge attracts to itself other notions with varying degrees of epistemological potency relative to the system of systems it is correlatively forming. (AD_10.04.01 2C-B)

Steve Farmer has made the connection between psychedelic mind-states and correlative thinking. Computer visionary and early psychedelic experimenter Ted Nelson defines hypernoia thus: “the belief that everything is, or should be, connected, interconnected, or reconnected. Bringing back together what should never have been separate”(Nelson 1993). Medically, hypernoia is defined as great rapidity of thought, excessive mental activity or imagination of the type seen in the manic phase of manic depression. (Medilexicon) Once again, we see the ‘not-normal’ mind-state of rapid thought, which, in the psychedelic sphere can be experienced as a feature, characterized as ‘abnormal,’ a bug, and linked to a DSM-IV category, “manic-depressive,” as “voices in the head” are linked to “schizophrenia.”

And the increased conductivity—this is harder to achieve and to explain—superconductivity = little or no resistance to flow—and the changing the ego-identity structure from something that is walled in (the medieval city) to something far more porous—while saving, maintaining—all the individualness that accelerates production of forms and knowledge and art forms—but changing its nature and use radically—now in awareness of and service to the networked larger awareness and intention (AD_03.03.02 MDMA)

Relaxing allows the superconductivity to happen—much greater in and out—much wider reach—feels smooth and frictionless and graceful and beautiful—keep that awareness and body—the Glide gestures, Qi Gong—find that superconductivity in the mind’s flow over content—not getting stuck in pathways, or behind taboos, or caught up in judging activities—which halt flow to consider—Is this right or wrong— (AD_03.02.09 MDMA)

superconductivity of individual construct (sub-circuit) ID package, "self-construct") happens when energy is not being trapped or hung onto for purpose of "heating up" circuit, shining, attracting attention, ego-waves. (AD_02.12.25 MDMA)

superconductivity at its limit is the speed of light—which is the speed of time—which is "standing still" (AD_03.03.17 MDMA)

The qualities and dynamics of super-connectivity and super-conductivity in psychedelic mind-states are key topics in the ADs. The qualities of cognition experienced—thoughts moving fluidly, *sheer spontaneous flow*, were the conditions of the correlative thinking that developed the Glide symbolic system and found the connections to other correlative systems.

There is a funneling down that must occur, a loosening of boundaries that will permit the systems to intermingle freely, without disciplinary or methodological chaperonage. (AD_10.04.01 2C-B)

6.4.1 I Ching as correlative system

The I Ching or Book of Changes is one of the five Classics of Chinese philosophy. Its origins have been treated both traditionally—mythologically—and historically, but it is generally accepted to be a compendium of early divinatory texts and numerological systems: the trigrams and the hexagrams preceding the divinatory texts, followed by the layered strata of commentaries. It embodies both Taoist and Confucian philosophies in the commentaries. Two millennia of Chinese scholarship and a sizeable body of Western translations and commentaries since the Legge translation in 1899 and the Richard Wilhelm translation in 1961 attest to the perennial attraction of this high-correlative premodern text.

[Appendix I, Figures 37 and 38.]

In the course of Chinese history over a hundred different schools have appeared on how to study the I Ching and apply its wisdom to daily life. Every school writes commentaries and contributes its own achievements. There are immense numbers of commentaries on the I Ching. The Chinese describe them as "vast as an open sea" (Huang 2000).

It is not the purpose of this short treatment to engage the scholarly issues of historicity, especially of the sequence of materials as they were compiled into the *I Ching* system as received today, but to deal with it as an ancient book of wisdom in modern translation as it has influenced the McKennas' Timewave Zero symbolic system, and the Glide symbolic system (independently developed). Each of these two xenolinguistic systems connects to the *I Ching* correlatively, and can be considered extrapolations of the *I Ching* system.

Divination, our oldest form of predictive art, has roots in prehistoric shamanism, and in many cultures using psychoactive adjuncts as part of the divinatory technology. Divination has always concerned itself with those types of knowledge which have proven intractable to science in any predictive sense: the knowledge of human affairs, the secret movements of the heart, and especially the interaction of human lives with chance, fate, the elements, the forces of nature, and each other, addressing our embeddedness in webs of interaction and our responses to the unpredictable conditions, accidents, and to fortune, good and bad, by which our lives can turn on a dime onto new paths, like re-directed rivers after flooding storms.

Steven Karcher defines the *I* thus:

Though often translated as change or changes, the central term *I* is not simply orderly change—the change of the seasons, for example, or the change of one thing into another, like water changing into ice or a caterpillar into a butterfly. Unpredictable and, as the tradition says, unfathomable, *I* originates in and is a way of dealing with “trouble”. It articulates possible responses to fate, necessity, or calamity—that which “crosses” your path (Karcher 2002).

Further, Karcher implies, the first person experience of the human mind, is that of an island of conscious awareness in a sea of the “unconscious” or “mind at large” which holds, out of sight (by definition), the ‘everything else’—memory, dream, drives, desires, complexes, creative imagination, visionary states, and archetypal

figures. This environment of mind I am immersed in seems the complex system par excellence by means of which I as well as the workings of the more orderly, though equally intractable complex physical universe that science postulates.

Is it fair to say that responding to emergency, disaster, or sudden opportunity happens always in the absence of sufficient data to reach exclusively rational considered decisions? Divination seeks the underlying order in the chaotic sea of unknowns, the Tao beneath the disconnected details, the ancestral viewpoint standing somewhere outside the flow of events (but still in touch with us). Divination postulates realities and viewpoints possessing greater knowledge, an epistemic edge, an early warning system of events to come, the auspicious and the dire, some slight preparedness, some added sense of timing, or tuning, aligning, a stance. Karcher again:

The term *I* emphasizes imagination, openness and fluidity. It suggests the ability to change direction quickly and the use of a variety of imaginative stances to mirror the variety of being. It further suggests that this imaginative ability is the true root of a sense of security and spiritual well-being. The most adequate English translation of this might be versatility, the ability to remain available to and be moved by the unforeseen demands of time, fate, and psyche. This term interweaves the *I* of the cosmos, the *I* of the book, and your own *I*, if you use it" (Karcher 2002).

Karcher describes the process of consulting the I Ching as a complex interaction with a symbolic system that connects one to the Other as source of knowledge.

...the function of the *I* is to provide symbols (hsiang). The text came into existence through a mysterious mode of imaginative induction, also called hsiang, which endows things with symbolic significance. Acted upon simultaneously by figures in heaven, patterns on earth, and events in the psyche, the old shamans and magicians spontaneously hsiang-ed or symbolized to form the texts and figures as links to important spirits and energies.

The chun tzu, the ideal user of this book, can take advantage of this fundamental spirit power. He or she observes the figure obtained through divination and takes joy in its words, turning and rolling them in the heart. These words translate or symbolize (hsiang) the situation, connecting it with a level of reality from which the symbols flow. Through this action, the chun tzu becomes hsiang or symbolizing, linking the divinatory tools and the spirits connected with *I*, directly to the ruling power of the personality. To do this is called shen, which refers to whatever is numinous, spiritually potent.

Like the shamans and sages of old, this tradition maintains, the person who uses these symbols to connect with *I* will have access to the numinous world and acquire a helping spirit, a shen. The *I Ching* is more than a spirit; it channels or connects you to a spirit.

The human situation is described as a nexus of influences from multiple levels of reality, mediated by symbols that become the points of passage among these levels. Another description of this process comes from Michael Nylan:

The *I Ching* specifically tries to locate the “gate of change”—that phase of transition where things and events first come out of formlessness into an intermediate state of bare perceptibility (often identified with the image or symbol). After passing through this gate, things eventually develop concrete form and fully individuated characteristics (Nylan 1994).

The set of symbols (obtained by the yarrow stalk or coin method) with which one interacts includes the Chinese character which is the name of the hexagram obtained, the hexagram and its configuration of yin and yang lines, the trigrams, inner and outer, of which the hexagram is composed, the individual lines (*yao*) which are strong or weak, changing or unchanging (each of which has multiple traditional texts associated with it), and the multiple texts for the hexagrams as a whole. The additional layers of commentaries, such as the Ten Wings, and diagrams of major symbolic relations of trigrams, give the whole structure the sense of an archaeological site, where shamanic, Taoist, and Confucian levels co-exist in layers throughout the correlative system.

The multiply symbolic system of the *I Ching* becomes one of the parts of a larger correlative system implied by the similarity of themes among the four xenolinguists discussed below.

6.5 The Idea of a Living Language

DNA is a strange attractor in the psychedelic discourse. Intuitions about DNA riddle the ADs, becoming visual in high-dose psilocybin sessions. The Vaults of Erowid contain many reports about DNA and its functions. The correlative

relationship of DNA to the universal symbol of the cosmic serpent is the topic of Jeremy Narby's work relating the findings of molecular biologists to those of ayahuasca shamans. He depicts the two paths—the scientific and the psychonautic—leading to the same knowledge (Narby 1999).

When language can describe it/self, and reflect upon it/self (re-entering its own form; in-forming it/self) the idea of a living language emerges. In McKenna's DMT vision of language where the entities produce linguistic objects out of themselves, the objects turn into living beings, and the beings emit further linguistic objects, the transformational loop between life and language progresses at high speed. The circular connections between language and DNA as the language of life, become a self-enfolding system that accounts for itself. Roland Fischer notes

An even more complex but familiar example refers to the information stored in the self-referential DNA structure, which consists exclusively of instructions for the synthesis of the very agents responsible for the implementation of the program. One of the main 'aims' of the program stored in the DNA is to reproduce unchanged the structure of DNA itself. The medium is indeed the message and hence the DNA structure may be a good model for self-referential consciousness. Self-reference, analogous to the 'chicken and egg' in modern biology, may well be compared here to 'protein and nucleic acid', or, in more abstract terms, to function and information. The question 'which comes first' is meaningless because function in order to evolve needs to be represented by information, this information acquiring all its meaning only through the function for which it is coding. Indeed, in all living systems proteins and nucleic acids are linked in a complex hierarchy of feedback loops and, hence, a causal first would have as little meaning as beginning and end in a closed cycle.(Fischer 1977).

Three meanings of the term consciousness are 1. to cut or make a distinction; 2. To know *with*; and 3. To know in oneself. They refer to the domain of self-description or self-observation. The DNA-like, self-referential structure of consciousness is reflected in Maturana's description of consciousness:

...if an organism can generate a communicable description of its interactions and interact with the communicable description, the process can, in principle, be carried out in a potentially infinite recursive manner, and the organism becomes an observer (Maturana 1970).

The self-referentiality of DNA, of consciousness, and of the autopoietic system converge in a second-order cybernetic commonality of process.

following through on the idea that the design IS the intelligence i.e. the sentient nature of DNA—not just in a single cell, miracle enough, or a single body—mantis or man—but in everybody, every cell thereof the coiled filaments in ceaseless activity creating the diversity and the bodies and also densely intricately intertwined and in communication with every other instance of DNA in the biosphere from the tiniest bacteria on up a vast mycelial network able to communicate because of the overwhelming similarity of the majority of the text (AD_05.12.06 MDMA)⁵²

DNA is a liquid crystalline structure two nanometers across. The coded genes are aperiodic; the long sequences between, periodic. Basing his hypothesis on the work of bio-physicists Fritz-Albert Popp and Mae Wan Ho (Ho 1998), Jeremy Narby suggests that the mechanisms of biophotonic emission of DNA and its crystalline structure may be the avenue of transmission and reception of signals among DNA molecules (Narby 1999).

it is the DNA which is evolving it/self as a whole it has to be as a whole the ecological fits are far too creative how the whole works together in a game that is being made up as it goes along that's called adaptation inventing new rules emergent structures or behaviors those co-evolve (AD_05.12.06 MDMA)

the intelligence it takes to get from the machine language level of amino acids and the codes that specify them to the creation of the eye on the peacock's tail to respond to a certain complex context known as "an environment" including also all the other interacting species sharing space eating and being eaten how to get from that level of language to the systems of proteins etc. a wildly creative intelligence—the whole thing taken together the biosphere Gaia but it is the rainbow serpent of knowledge the biophotonic pulsars speaking a language of light bodies that by their own light shine extended perception and multiscaling reveals this language of light (AD_05.12.06 MDMA)

The spirits one sees in hallucinations are three-dimensional, sound-emitting images. In other words, they are made of their own language, like DNA.

⁵² The idea of the immanent intelligence in nature discussed in psychedelic discourse differs importantly from the religious formulation of intelligent design as the transcendental intelligence of a monotheistic creator. This idea has given major attention in psychedelic research by Richard Doyle, (Doyle, R. (2010). The Ecodelic Hypothesis: Plants, Rhetoric, and the Co-Evolution of the Noosphere, University of Washington Press (in press).; Jeremy Narby, (Narby, J. (2005). Intelligence in Nature. New York, Jeremy P. Tarcher., and Simon Powell (Powell, S. G. (2009). The Psilocybin Solution. Rochester, Vermont, Inner TRaditions (in press).

Both shamans and molecular biologists agree that there is a hidden unity under the surface of life's diversity; both associate this unity with the double helix shape (or two entwined serpents, a twisted ladder, a spiral staircase, two vines wrapped around each other); both consider that one must deal with this level of reality in order to heal. One can fill a book with correspondences between shamanism and molecular biology (Narby 1999).

Narby constructs the correlations between the ayahuasqueros superior and detailed plant knowledge, the representations of entwined serpents, and the forms of DNA, finding DNA to be essentially minded, communicating—intra-cellularly, inter-cellularly, inter-organism, and inter-species. He found further correspondences between myth and DNA in the Desana myth of twined and twinned serpents residing in the fissure of the brain, a giant anaconda and a rainbow boa; in the aboriginal Australian myths of the creator Rainbow Serpent; and in the Aztec myth of Quetzacoatl (whose name can be translated as 'plumed serpent' or 'magnificent twin') symbolizing the "sacred energy of life," who is in turn, with his twin brother Tezcatlipoca, child of the cosmic serpent Coatlicue (Narby 1999).

6.5.1 Panspermia

Intimations of the panspermia or exogenesis hypotheses—the idea that life originated elsewhere in the physical universe and was seeded on Planet Earth—appear in psychedelic experience reports with regularity.

the mission is the transmission pay attention to the script of the trans mission to illuminate the manuscript illuminate o | lumen | ate |the trans-|mission Alien architecture [much unreadable] a script we are this transmission the mission of the scripts making your presence felt felt felt dimensions of trust in the script of the transmission trust now as you stand you under stand the alien dimensions trust—where all was given to the script to the transmission so much so much depends upon finding the script of the transmission (AD_05.03.19, 5 gms dried stropharia cubensis)

DNA is envisioned in this session as an illuminated manuscript.

An early version of this psychedelic idea is found in the McKenna brothers' essay, *The Mushroom Speaks*.

I am old, older than thought in your species, which is itself fifty times older than your history. Though I have been on earth for ages I am from the stars. My home is no one planet, for many worlds scattered through the shining disc of the galaxy have conditions which allow my spores an opportunity for life. . .the means should be obvious: it is the occurrence of psilocybin and psilocin in the biosynthetic pathways of my living body that opens for me and my symbiotes the vision screens to many worlds. You as an individual and Homo sapiens as a species are on the brink of the formation of a symbiotic relationship with my genetic material that will eventually carry humanity and earth into the galactic mainstream of the higher civilizations (Oss and Oeric 1986).

Terence McKenna entertained many hypotheses about the mushroom, the Other, and the possibility of exo-planetary or exo-dimensional contact over his career. The mushroom as intergalactic ambassador was an early formulation. The notion of the symbiosis with the genetic material of the mushroom came from Dennis McKenna's protocol for the Experiment at La Chorrera (the E@LC, as Dennis abbreviates it), which was at the heart of the experiment, linked to the intention to create the lapis, the Philosopher's Stone of alchemy. Alchemy was one of the symbol systems with which the Experiment was associated.

In *The Cosmic Serpent*, Jeremy Narby introduces the panspermia theme through his reproduction of anthropologist and shamanic practitioner Michael Harner's account of his first ayahuasca experience, re-quoted below:

Then black specks dropped from the sky by the hundreds and landed in front of me on the barren landscape. I could see the 'specks' were actually large, shiny black creatures with tubby pterodactyl-like wings and huge whale-like bodies...They explained to me in a kind of thought language that they were fleeing from something out in space. They had come to the planet earth to escape their enemy. The creatures then showed me how they had created life on the planet in order to hide within the multitudinous forms and thus disguise their presence. Before me, the magnificence of plant and animal creation and speciation—hundreds of millions of years of activity—took place on a scale and with a vividness impossible to describe. I learned that the dragon-like creatures were thus inside all forms of life, including man.'

At this point in his account, Harner writes in a footnote at the bottom of the page: In retrospect one could say they were almost like DNA, although at that time, 1961, I knew nothing of DNA (Narby 1999).

If you want to write a message that won't be erased, put it in the DNA. (McKenna 1991)

A similar urgency in the contact narrative was experienced in AD_05.03.19, above, through a line of poetry from William Carlos Williams, repeated like a refrain throughout the eight hour session.

so much depends upon

Life is pictured as a vast, complex, interconnected signaling system, with DNA as the transceiver, and biophotonic emissions as the signals and sources of at least some aspect of the visions one sees in psychedelic states. But what about the narrative—the creatures fleeing an enemy through interstellar space, landing here, creating life-forms to hide within and “disguise their presence?” Having had a similar vision myself, embedded in a similar narrative, on a high-dose psilocybin journey, what shall I make of this? How do such similar narratives arise, in all their urgency and detail, independently, under conditions of extreme consciousness alteration? What does this tell us about how myths arise? And if I repeat this story now, adding my own, as Narby repeats Harner’s story (and other similar myths from the Desana and Aztec cultures), will there be other readers who remember some similar story from a psychedelic session? How do we then interpret these events? If DNA not only holds a vast store of information, linguistically structured, but is also intelligent—minded, in the Varelian sense—and connected to the mostly similar DNA in highly diverse, complexly related, and deeply nested organisms, across vast scalar differences, we’ve arrived at something resembling a galactic Gaia hypothesis, or the concept of the noösphere.

This awareness of interconnection occurs in and with what Vernadsky dubbed the “noösphere”—the aware and conscious layer of the earth’s ecosystem, and perhaps, feeds back onto our ecosystems as we become conscious of our interconnections with them (Doyle 2010).

So—visions present stories, stories beg for an interpretative framework. But it is the network of interconnected stories (scientific, psychedelic) about the network of interconnected life-forms that reveal this planet as a wonder we take mostly for granted, a wonder that is restored in psychedelic states.

6.5.2 The Rainbow Serpent

The Rainbow Serpent, which has woven itself into the larger narrative of this thesis, names an experience, a multiple metaphor, a cross-cultural complex of myths, and a means of understanding LiveGlide, the 3D form of the Glide symbolic system in the ADs. The rainbow serpent is a universal symbol, in Laughlin's definition, and pervades many of the psychedelic sessions. From the first session, it was present in the energy flows of the body, creating serpentine hand gestures. It is present in varying forms and combinations of forms—visual, aural, energetic, gestural, and cognitive—with every psychedelic substance experienced over the period of the research: MDMA, LSD, 2C-B, *stropharia cubensis*, *salvia divinorum*, and DMT. In psychedelically enhanced practice sessions with LiveGlide, it is present in the gestures of the serpentine forms which are felt in the body and transmitted through hand, eye, and arm through the MIDI controller to the software and hence to the projection surface.

Glide—modeling the ride on the rainbow serpent (AD_03.03.17 MDMA)

riding on the rainbow serpent—the living language of light—the device—pulsing flashing with light like stained glass window—golden circuitry . . .

the radiant child riding on the rainbow serpent, Glide (AD_03.04.10 MDMA Zurich)

The structure of reality which you experience—and metaphor—as the rainbow serpent is another way of saying flow begets form—the waves create the particulars—the particulars and where knowledge resides—the web is where it issues from and returns—the dark of the lily-mind— (AD_03.02.02 MDMA)

off and away focused on the rainbow serpent—as episteme—as interface—as route between languages—as LiveGlide—qualities:

colling spiraling primal energy and flow transport basic wave sign (sine) primal wisdom double helix creative/destructive watery millions of rainbows in the writing air filled with rainbow ribbons—LiveGlide—

the s—the snaky letter snaky sound—snakes portrayed sonically hissing Glide sign hiss and whistle shamanic soundings—[de-signing language]

Mudra (gestures of transmission from altered states) streaming filament from fingertips—not body isolated in empty space—but energy body—point of organization—but exists in sea of energy, shaped, colling—that moves the body in its coils—the rainbow serpent—can be very frightening—as the energy so much bigger, more powerful than what is perceived as tolerable at the stepped-down (reducing valve) level (AD_03.05.26 MDMA)

The shapeshifting ubiquity of the visionary Serpent is emphasized in Simon

Powell's account:

I felt somewhat like a child, who was receiving instruction from a wise and ancient being. This being was not evil, despite its shifting serpentine nature. Like most people, I am not too enamoured by snakes, yet this visionary Serpent was a creature beyond any simple snake, seemingly an embodiment of Gaia, a great entity wielding wisdom and power.

In fact, such visionary motifs indicating the fusion of man-made architecture with biological structure were repeated a number of times. I often perceived stately homes and palaces—or rather, I would be gliding gracefully through such a palatial place—and always, the woodwork, like the banisters, wall panels, or staircases, would reveal themselves to be made of the body of a living creature. To be precise, I perceived that these building were woven from the jeweled body of the Serpent. Everything was alive, all was part of one animate, constructing entity. And if I saw human figures in any of these scenes, they too were formed out of the transmutating body of the Serpent. Everything in these scenes had the stamp of the Serpent's hide upon them, in that a kind of pulsating grid of luminescent lines and scaly jewels pervaded every object (Powell 2008).

The polysemic Rainbow Serpent pervades Powell's mushroom experience and becomes, a manifestation of Gaia.

The universal symbol of the Rainbow Serpent correlates with DNA, as illustrated in the Section 7.5.

As the creator of life, the cosmic serpent is a master of metamorphosis. In the myths of the world where it plays a central part, it creates by transforming itself; it changes while remaining the same. So it is understandable that it should be represented differently at the same time. I went on to look for the connection between the cosmic serpent—the master of transformation of serpentine forms that lives in water and can

be both extremely long and small, single and double—and DNA. I found that DNA corresponds exactly to this description. (Narby 1999)

6.6 The Xenolinguists

This section treats the work and thoughts about their work of four Xenolinguists:

Jason Tucker and the art form he has called Actual Contact; Allyson Grey and Secret Writing; Terence McKenna and Timewave Zero; and my own work with the Glide symbolic system. A table summarizing the major ideas shows many correspondences between the systems, forming the beginnings of a correlative system of systems from a xenolinguistic perspective.

[Appendix VIII: The Xenolinguists]

The work of Jason Tucker and Allyson Grey will be treated more briefly.

Slattery⁵³ and McKenna's work, each of which contains an extensively developed symbolic systems, will be treated in greater detail.

6.7 Jason Tucker: Actual Contact

When I heard McKenna relate the hallucinogenic experience to the twenty-fourth fragment of Heraclitus: "The Aeon is a child at play with colored balls," I was truly taken aback at the synchronistic connection to the images that had been pouring out of me at the time. It has literally intersected with my own direct experience, which is why I'm moved to even explore these ideas in the first place. In these images, I can see an Other "coming into being" wanting to participate. The act of creation is shown to be an act of pure participation - a participation with something Other than what I would normally call myself (Tucker 2008).

Jason Tucker's drawings combine the physical act of drawing and painting with digital scanning, followed by a rendering of the raster image into vector shapes. He

⁵³ An unavoidable conflation of 1st and 3rd person, and baseline and psychedelic states (quotes from the ADs), in reporting and interpreting will occur as I (Slattery) discuss "my own work," (her work) as the self-reflexive conversation unfolds, enfolding it/self as the work describes it/self and "I," as subjective and objective observer, in the same person (or persons, in the psychedelic reports), narrate these final sections of the thesis. The overarching viewpoint, the *both-and* for which Varela has invented a formalism } could represent it/self thus: * = I/Slattery where the asterisk represents the *both-and* state, similar to Nicolescu's third logical term "T" used in communicating between levels of reality in his transdisciplinary formulation. Varela, F. J. (1979). Principles of Biological Autonomy. New York, Elsevier North Holland, Inc.

describes the drawing process as “not consciously creative,” or “automatic,” and as “fluid movement in a state of transformation.” The movement is experienced as a collaborative process with the Other.

[Appendix I, Figure 39.]

Archetypes of the Other are present in the work; and the act of drawing the image itself is described as being in participation with an Other. Cellular ancestral-like patterns merge with alien-like imagery (and/or our future selves) and interact in a complex social network; a composite psyche made up of many entities (Tucker 2008).

A progression of events related to psychedelic sessions precipitated Tucker’s immersion in drawing “cellular entities.”

I initially started out drawing abstract patterns made up of lines, circles, squares, triangles, etc. - something more akin to Kandinsky, or Miro - but with more of an archaic nature to some of it. LSD was a part of it - I don't know how central it was though. Then after awhile, figures began to emerge in my drawings - and the lines were feeling a little less rigid. Then there was one in particular that came out during a Psilocybin mushroom trip where a 'full on' cellular entity was holding one of my earlier style drawings. This seemed to evoke that there was someone else in my psychic presence. And more came pouring out - some looking a little wavy in a peculiar way, kinda like they belonged to someone in the psychiatric ward. In hindsight I was in a very fragile state at the time. I can remember communicating with them as if I had made contact with something completely alien. It was religious in nature. Often I would get the sensation that I was participating with someone on the other side of the image who was drawing the same thing at the same time. A mirror effect (Tucker 2010).

The identification of the alien as “our future selves” resembles the “actual contact” with the Glides who are themselves “our future selves” transformed into the fluid serpentine shapes of a transforming language. The connection with the Other as future self in the psychedelic experience enfolds the dialogue of self and Other underlying the resultant art. John Lilly identified the entities of E.C.C.O (Earth Coincidence Control Center) similarly (Lilly and Lilly 1977b).

Glide tunes the minds through its various forms—Glides re-embodies us in language reminding us that our bodies are made of morphing codes, of language constantly transforming at base (AD_99.07.06 MDMA first session)

Regarding entities—same notion—our future selves now here to nurture us—what we are evolving into. (AD_03.06.16 hashish)

The connection to our prehistoric past can be seen in the occurrence of elements in Tucker's earlier pre-cursor drawings to elements in rock art.

[Appendix I, Figure 40.]

Tucker has experienced "biomorphic entities - emitting and exchanging – spheres (sometimes colorful)"; these entities emerge from the drawings.

I have come to see these beings as anthropomorphic entities, made of language, each one performing an act of transformation - a visible linguistic dance expressing infinite possibilities (Tucker 2008).

Interaction with the Other in the psychedelic sphere unfolds a narrative of the developing technoetic practice as a collaborative act.

At one point I was tripping on a very large dose of psilocybin mushrooms and had this image of me descending down into some dark (i couldn't see at all) tunnel hanging by a rope. I reached the bottom. And something told me that what I needed was across this room - nearby - but I would have to let go of the rope to get it and it was still very dark and I could not see a thing. I could feel the walls that felt like cold rock and I could feel the rope I was holding - that was it. At that point I made the very scary and very real move to let go of the rope and run across the dark room reaching around, my heart pumping, searching for what I did not know. I felt something - it was paper, but a little heavy, but not quite stone. Anyway I grabbed it and when running back to the rope feeling my way around the room - my heart racing. Somehow I managed to find the rope. At the very moment I touched it - I shot up at lightning speed to the surface. It seems that after that moment, and several DMT trips in there, and Ayahuasca trips in South America, I had a huge outpouring of strictly cellular imagery containing entities playing (Tucker 2010).

[Appendix 1, Figures 41 and 42.]

Tucker's flowing line doubles back on itself, creating form in an ambiguity of positive and negative spaces, a maze-like structure where form and space containing form interchange in our perception, reflecting Tucker's connection to the alchemical idea of the cosmic Anthropos as "a condensed symbol of or pattern rising from both the density of media and a person's capacity to hold opposites." Tucker likens this to Heraclitus whose "All is flux" he interprets as a form of "contraries are the same by virtue of one thing changing to another." (Tucker 2010)

This process of allowing serpentine movement to generate a form without direct control of the forms being created resonates with the “gestural glossolalia” experienced by Slattery in writing with the LiveGlide visual instrument.

Tucker envisions the theme of the Eschaton and 2012, prominent in McKenna’s thinking and the endpoint of his Timewave Zero, in relation to Jung’s concept of a new Anthropos, a figure

forming in the collective unconscious, a kind of figure like the “round or square man” or “true man” of the alchemists, a more complete Christ figure, containing the opposites of the one and the many, male and female, good and evil, spirit and matter (Tucker 2008).

Alchemical figures, such as the philosopher’s stone, and the *coniunctio oppositorum* connect correlatively with the impulses underlying his work.

The theme of interconnectivity is prominent in Tucker’s vision of his work.

I’ve been shown through my drawings that humanity is a network of centers, whose order depends on the harmony of these centers. These images express a soul of infinite centers that wants you to do what they do; to live in harmony. They are a pattern of nature, an organic visual symbiosis. You could say it looks indigenous, but it’s not tied to any one culture. They’re an empathic communicative world of anthropomorphs born from a union of the archaic and the modern.

Tucker’s position on psychedelic use is suggested by his quotation of Jose Arguelles statement in *The Transformative Vision*, re-quoted in part here.

The initial use of drugs to reacquaint Faustian man with the reality of this wisdom acts as a stick of dynamite to break up the logjam of materialistic confusion and error. But used continually without an appropriate ritual prescription, psychedelics can only be a poison. More important is the development of the discipline - the internal technology - that an understanding of the inner realm demands. We are in a unique evolutionary position, and when I speak of tradition and the necessity of developing an internal technology, I am by no means advocating the thoughtless or wholesale embrace of the traditions of another culture. Yet to begin at the beginning, to begin again, is to embark on an archaic path. . . . The vision of what we are to become is already within us, awaiting the proper discipline through which it might be appropriately expressed Arguelles in (Tucker 2008).

The position of many contemporary psychonauts is echoed here, where the necessity for developing one’s own “internal technology” with which to frame and

develop the psychedelic experience into an evolutionary technology is an act of, in the dictum of Burning Man, “radical self-reliance,” a responsibility for the direction of one’s own actions and one’s own unique interpretations of the evolving experience when experimentation evolves into practice, with its own protocols, and its own intentions.

6.7.1 Allyson Grey: Secret Writing

I started painting spectral squares in the late 70's after an acid trip I shared with Alex, which pointed us both in the direction of portraying the multi-colored strands of light energy that formed a vista of interconnected fountains and drains, flowing in a pattern that spread to infinity in all directions. This experience lifted the veil over the loom-matrix of our highest identity, of being a node in the net of space and time. This was clearly the most profound revelation of our existence, and was to become the subject of our art for a lifetime (Grey 2010).

Infinite connectivity and reflectivity is at the heart of Allyson Grey’s psychedelically informed artwork. She relates the sacred loom-matrix to the Net of Indra, a Hindu symbol expressing the concept of a condition where every entity in the universe connects with and has knowledge of every other: infinite noesis. Secret Writing symbolizes, for Grey, “all communication and creativity -- the unutterable truth beyond language that is pointed to by sacred text.”

[Appendix I, Figure 10.]

The spectral squares, painted with on two-dimensional surfaces, achieve an extra-dimensionality with the complex shadings of the color spectra, and the pulsing, glowing effect caused by their juxtaposition, an effect that emerges clearly under conditions of extended perception. The technique creates the combined effect of three-dimensionality, and fractal dimensionality—two different means for introducing depth: the z axis and the fractal dimension.

Grey’s spectral squares are explicitly fractal in structure. The Jewel Net of Indra is a mandala displaying the fractality that is a hallmark of much psychedelically informed artwork.

Intending to create spiritual art, I feel naturally attracted to abstraction and to a written sacred language. Every known religion reveres its holy writing. Sacred writing of all faiths, however, come into conflict through human interpretation as the written word defines the differences of philosophy and traditions, when truly the basis of all religion is unity and infinite love (Grey 2010).

Grey and her husband Alex, one of the best known of the “visionary artists,” frame their art in a spiritual context, and psychedelics as entheogens. Together they have created the Chapel of Sacred Mirrors⁵⁴ and a community of artists and spiritual seekers with an entheogenic practice.

In 1975 I began writing automatically in an invented or transmitted language. I do not give meaning to the symbols in my art as it is meaning that separates experience from expression. The alphabet that I use points to the notion of a sacred language beyond meaning. Some of the works call to mind the experience of seeing an illuminated text in a foreign language and religion. In recent work, I combine the icons of perfection (the Jewel Net) with the secret language, and images of chaos. Chaos in my art is the entropy of the units of spectrally arranged squares using a system of “planned randomness”, allowing every spectral unit to fall apart in a variety of ways – squares falling off of a corner or the spectral unit exploding from the center, etc. The three elements used in my work, Chaos, Order and Secret Writing, are non-literal representations of the sacred (Grey 2010).

[Appendix I, Figure 43.]

The twenty glyphs comprising her symbolic system, Secret Writing, are explicitly not linked to meanings. They cannot therefore be translated and exist suspended in a mysterious state—explicitly symbolic—“a written sacred language”—but where the meaning will always remain secret. With the suspension of the semantic dimension, the possibility for the understanding of the symbols is forever held at bay, along with the possibility for misunderstanding, which Grey feels divides the various sacred scripts from each other, obscuring the underlying unity of the experience of the sacred dimension, and creating conflict rather than the unity of loving connection expressed in her initial vision, “a vista of interconnected fountains and drains, flowing in a pattern that spread to infinity in all directions.” Never-the-less, the symbols are pictographically suggestive of a number of

⁵⁴ The Chapel of Sacred Mirrors can be viewed at <http://www.cosm.org>.

universal symbols: the serpent in the squared-off wave form; the spiral; nestedness; twinship; pi as a portal; and the union of opposites in several of the symmetrical forms. But meanings will never adhere to these symbols; they are universal, polysemic, and explicitly secret, Grey's stealth-lang, as mysterious as the Voynich manuscript or the Phaistos disc.

Grey's art is painted on two-dimensional flat surfaces, and has a decidedly geometric structure, highly symmetrical when painting Order, asymmetrical when Chaos is depicted.

Grey outlines the principles of her art in concise form.

My work is based on the following principles:

Life is a system made up of small cells or light/energy packets.

Each square in the paintings is like a cell and the spectrum is a system.

Life is comprised of order and chaos, symbolically portrayed in my paintings.

Order is the experience of all things interconnecting.

Chaos is entropy and dissolution of order.

Secret writing symbolizes all communication and creativity -- the unutterable truth beyond language that is pointed to by sacred text (Grey 2010).

Grey's symbolic system combines the forces of chaos, order, and secret writing.

The spectrum is an organizing principle of light, the illumination of the manuscript. Her cosmology—the correlative system—is embedded in the visual images. The interplay of chaos and order together dynamically form the universe; secret writing connects all parts, in expressive means, communicating an unspeakable meaning, literally, the mystery of creation and communication, a sacred statement which is it/self, untranslatable, fully explicit and completely secret.

6.8 Terence and Dennis McKenna: Timewave Zero

Terence McKenna's complex of psychedelic ideas can be mapped with language at the center, influencing every discourse he entered, and there were many: hermeticism, alchemy, the Logos, DMT, DNA, I Ching, shamanism, ecology, and ontology—where the linguistic structure of reality it/self is asserted. Early in his psychedelic adventures, a profoundly influential experience with DMT seems to have set this strange attractor in place in his personal landscape. He has called this experience, and the DMT experience in general, "the core mystery." In Nepal studying Tibetan language in 1967, age 21, Terence McKenna had

I guess it's called a peak experience, or a core revelation, or being born again, or having your third eye opened, or something, which was a revelation of an alien dimension; a brightly lit, inhabited, non three-dimensional, self-contorting, sustained, organic, linguistically intending modality that couldn't be stopped or held back or denied. . . I found myself in the sort of auric equivalent of the Pope's private chapel, and there were insect elf machines proffering strange little tablets with strange writing on them. And it all went on, they were speaking in some kind of -- there were these self-transforming machine-elf creatures -- were speaking in some kind of colored language which condensed into rotating machines that were like Faberge eggs, but crafted out of luminescent super-conducting ceramics, and liquid crystal gels, and all this stuff was so weird, and so alien, and so "un-English-able" that it was a complete shock.

These are the wholly alien linguistic objects he describes over and over in his taped lectures and books from the beginning to the end of his career. He became a xenolinguist in the DMT space; much of his linguistic theory is a result of the effort to unpack the 1967 (and subsequent) DMT experiences (McKenna 1983).

In the explication of the McKennas' experiences, below, it is important to remember that the truth value of scientific speculations is not the issue. Both Dennis and Terence individually have disclaimed such verifiability. But as an extensive recording of the events of a psychedelic experiment, they reveal a mythical narrative which can be compared with the myths emerging from the work of the other Xenolinguists presented.

[Appendix VIII: The Xenolinguists]

Similarly, the mathematics of Timewave Zero, as explained below, are not supportable by mathematical analysis. Timewave Zero, if read as a mathematical claim, does not hold water, a conclusion communicated by Dennis McKenna (McKenna 2009). Timewave Zero is more productively read as a divinatory system, where the “truth value” is found by the individual user (as with any divinatory system. Divination is an interpretive reading of a pattern: in the case of the I Ching, a hexagram arrived at through a chance procedure; with Tarot divination, a pattern of cards laid out from a shuffled (randomized) deck. The same can be said for the Glide software “Oracle.”

6.8.1 The Experiment at La Chorrera

Four years later, in the Amazonian jungle in Columbia, at the mission settlement of La Chorrera, Terence and his younger brother Dennis, along with three friends, had a weeks-long cascade of psychedelic experience that has been called since, by the brothers, “the Experiment at La Chorrera” (the E@LC⁵⁵). Two books detail the events. The first, *The Invisible Landscape, (IL)* (McKenna and McKenna 1993) is co-authored by Terence and Dennis McKenna. The second, *True Hallucinations, (TH)* (McKenna 1993b) is authored by Terence, but with long excerpts from Dennis McKenna’s journal of the time. It is clear in studying these books that many of the major ideas that Terence lectured and wrote on throughout his career crystallized in the prolonged state of mind-meld between the brothers described in TH. I am not highlighting issues of authorship, but the states of mind, or Mind-at-Large that occurred during the download period from March 4th to March 15th, 1971 at La Chorrera.

⁵⁵ Dennis McKenna’s abbreviation. McKenna, D. (2009). *The translinguistic*. D. Slattery. Albany, NY.

While what Dennis did in the Amazon may not have caused the ideas that I developed, I have the strong intuition that it did. In the wake of the experiment, my ordinary private concerns were replaced with such utterly strange musings that I could not recognize them as products of my own personality. He performed his experiment and it seemed as though I got a kind of informational feedback off my DNA, or some other molecular storage site of information. This happened precisely because the psychedelic molecules bound themselves to the DNA and then behaved in the way that we had expected; they did broadcast a totality symbol whose deep structure reflects the organizational principles of the molecules of life itself. This totality entered linear time disguised, in the presence of ordinary consciousness, as a dialogue with the Logos. The Logos provided a narrative framework able to frame and give coherency to the flood of new insights that otherwise would have overwhelmed me (McKenna 1993b).

The Other, as Logos, provides structure, acting as a transducer of energy, bringing the high speed, high intensity informational flood to a manageable level.

What makes a download a *download* is the intensity of the experience, the extreme compaction of densely interconnected knowledge, and the sense of potential access to any knowledge one can summon the wit to inquire about under such extreme epistemological conditions. Regarding intensity: the fact that Dennis remained in an altered state of consciousness for the duration of at least 23 days⁵⁶ is an almost unthinkable supermarathon of psychedelic travel. During this time Terence minded him, not sleeping for several nights, one foot in the practical world in which concern was escalating over Dennis' mental health and the other foot in the uninhibited, luminous, absurdist, messianic certainty and ontological confusion of the world Dennis appeared to live in, day after day, sharing the reality, "illuminated and maddened and lifted up by something great beyond all telling." McKenna in (Sutin 1991) During the same time period, the voice of the Logos asserted itself with Terence, and the intricate implication of the I Ching and its processes began to unfold.

⁵⁶ "But that reintegration and recovery was still 20 days in the future as we walked to the pasture the morning of March 7..." McKenna, T. K. (1993b). True hallucinations : being an account of the author's extraordinary adventures in the devil's paradise. San Francisco, HarperSanFrancisco.

The concept of concrescence, which Terence McKenna derives from Whitehead, describes a coming together, a condensing of ideas and events. The E@LC exhibits several forms of concrescence; concrescence is at the heart of the events and processes in play. Concrescence is a characteristic of high correlative systems where many ideas are brought together in a single system of systems. Psychedelics, as we have seen with Farmer, can precipitate correlative thinking, and produce correlative systems. Timewave Zero is such a system, bringing together the mathematics and the description of time as process, time that embodies a quality that ebbs and flows on individual, social, biological, and cosmic scales, self-similarly at multiple scales; fractal: the principle of novelty.

The protocol for the psychedelic experiment it/self developed from the initial several psilocybin experiences (*stropharia cubensis*), undertaken in a series shortly after arrival at La Chorrera when the mushrooms were identified growing abundantly in the fields where cattle were pastured. On the fourth psilocybin trip in as many days, Dennis emitted a brief burst of sound, "a very machine-like loud, dry buzz, during which his body became stiff." He related the sound, which he reported containing a tremendous energy, to the tryptamine buzzing he heard, and to Terence's reports of DMT-induced glossolalia-like sounds. Creating the sound both frightened him and catapulted him into a complex of ideas from chemistry, physics, microbiology, DNA, alchemy, and shamanism, an ad hoc correlative system built of existing knowledge frameworks, that became the protocol of the Experiment, or opus. He called the sound a "psycho-audible warp phenomenon."

I felt Dennis's amazement was perfectly reasonable; it was my own encounter with the visionary and linguistic powers of DMT that had originally sent me looking into hallucinogens and their place in nature (McKenna and McKenna 1993a).

Dennis' notes from the period detail the process they would follow and his idea of the effect of the harmonic sound he was able to produce on the chemical and physical properties of the molecules involved, including his own neural DNA and RNA.⁵⁷ The process is described by Dennis:

The mushroom must be taken and heard.

The ayahuasca must be taken and charged with overtone ESR of the psilocybin via voice-imparted, amplified sound.

The ESR resonance of the psilocybin in the mushrooms will be canceled and will drop into a superconducting state; a small portion of the physical matter of the mushroom will be obliterated.

The superconductively charged psilocybin will pick up the ESR harmonic of the ayahuasca complex; this energy will be instantly and completely absorbed by the higher-dimensional tryptamine template. It will be transferred to the mushroom as vocal sound and condensed onto the psilocybin as a bonded complex of superconductive harmine-psilocybin-DNA.

The result will be a molecular aggregate of hyperdimensional, superconducting matter that receives and sends messages transmitted by thought, that stores and retrieves information in a holographic fashion in neural DNA, and that depends on superconductive harmine as a transducer energy source and super-conductive RNA as a temporal matrix. This aggregate will be a living and functioning part of the brain of the molecular "singer" who creates it. It will be composed of higher dimensional matter; i.e. matter that has been turned through the higher dimension via the process of canceling its electrical charge with a harmonic vibration, transmitting that vibration across space (from superconductive transmitter to superconductive receiver), and then recondensing that vibration onto a superconductive template (the charged psilocybin in the mushroom), until the harmine-psilocybin-DNA complex condenses into a superconducting molecule. A molecule that is higher dimensional matter would, by this theory, be stable as long as it remains in a superconducting configuration, probably forever, since it is powered by its own ESR energy. It will be responsive to command via endogenous tryptamine ESR (thoughts), it will be keyed into our collective DNA, and it will contain harmine as a superconductive transceiver and power source.

⁵⁷ Terence McKenna states in the text that their ideas of what actually happened from a chemical and physical standpoint have undergone much sorting out and revision since the original conception. "These notes do not of course represent the final form of our theorizing about these matters and are not at all to be taken at face value. But how complete the vision was and how finely worked its detail! The theory that is represented in my brother's notes remains the operational basis for understanding the effect that was triggered on March fifth at the conclusion of the experiment. His notes were our working blueprint, and they were very effective." McKenna, T. (1993). True Hallucinations: Being an Account of the Author's Extraordinary Adventures in the Devil's Paradise. San Francisco, HarperSanFrancisco.

The process was dubbed "hypercarboration." Alchemically read, the goal of the opus was to instantiate the Philosopher's Stone, using ayahuasca, psilocybin, and the sound that resonates with the rising tone heard in the tryptamine trance, to intercalate the harmine molecule into the DNA and create a bond that would essentially hold open the portal for transdimensional information flow.

6.8.2 The Philosopher's Stone, Translinguistic Matter, and the Hyperdimensional Object at the End of Time

On tryptamines it is possible, under special conditions, to hear and vocalize a sound that turns through a higher dimensional manifold and condenses as translinguistic matter, i.e., matter reduplicated upon itself through time, much as a hologram is reduplicated through space. The substance whose appearance the sounds initiate is tryptamine metabolized by mind through a higher spatial dimension. It is a hyperdimensional molecule carrying its trip on the outside of itself in "this" world. The hyperdimensional nature of this material is such that it is all material, concepts, events, words, people, and ideas homogenized into one thing via the higher dimensional alchemy of mind Dennis McKenna in (McKenna and McKenna 1993a).

A concrescence of totality symbols were used to describe the goal:

There seems to be an ideological lineage, the golden chain, whose collective task was the shattering of the historical continuum through the generation of the living philosophical lapis of hypercarborationed humanity. All these visionary thinkers had performed their part in this project. Now, as the secret work of human history, the generation of Adam's cosmic body, lost since paradise, neared completion, these shades stirred and pressed near to our Amazonian campsite. Our destiny was apparently to be the human atoms critical to the transformation of Homo Sapiens into galaxy-roving bodhisattvas, the culmination of quintessence of the highest aspirations of star-coveting humanity (McKenna and McKenna 1993a).

[Appendix I, Figure 44]

The Anthropos, the Resurrection Body, the Stone, and the roving lenticular vehicle all converge in the intentionality of the Experiment.

The lengthy ASC, the download precipitated by the Experiment and shared by the McKenna brothers was a concrescence of noesis that resulted in the Timewave Zero theory, developed in dialogue with the Logos and based on the *I Ching*. And the Timewave Zero theory it/self is a tale of time ending in a concrescence

variously called the Eschaton, the singularity, the Philosopher's Stone, and other universal symbols of totality, finality, and completion.

The philosopher's stone is the polysemic totality symbol *par excellence*. It is beginning and end, alpha and omega) stone and solvent, "it" and "process." (Jung 1953)

Translinguistic matter, in the McKennas' various descriptions, plays the role of a magical substance which, perceived in psychedelic states, can be used to create things, *any-things*, as if it were a precursor material to the Stone it/self. Terence McKenna describes Dennis McKenna's run-up to the Experiment as a function of this substance in action whose harnessing would instantiate the Stone.

He was onto something very strange; his word-pictures caused reality to shimmer and crinkle at the edges. He was really in touch with this bubbling obsidian fourth dimensional fluid that we were going to stabilize into a usable tool (McKenna and McKenna 1993a).

In *True Hallucinations*, Terence McKenna devotes a chapter to his Nepalese DMT "peak" experience, as the back-story to the E@LC. The experience that, along with everything else, was sexual, included the phenomena of translinguistic matter.

Reality was shattered. This kind of fucking occurs at the very limit of what is possible. Everything had been transformed into orgasm and visible, chattering oceans of elf language. Then I saw that where our bodies were glued together there was flowing, out of her, over me, over the floor of the roof, flowing everywhere, some sort of obsidian liquid, something dark and glittering, with color and lights within it. After the DMT flash, after the seizures of orgasm, after all that, this new thing shocked me to the core. What was this fluid and what was going on? I looked at it. I looked right into it, and it was the surface of my own mind reflected in front of me. Was it translinguistic matter, the living opalescent excrescence of the alchemical abyss of hyperspace, something generated by the sex act performed under such crazy conditions?

The McKennas were also discussing the shamanic occurrence and uses of this substance.⁵⁸

⁵⁸ Stephan Beyer, who relates his apprenticeship in mestizo shamanism in his book, *Singing to the Plants*, covers the subject of magical phlegm extensively. Beyer, S. V. (2009).

The people take ayahuasca after which they, and anyone else who has taken ayahuasca, are able to see a substance that is described as violet or deep blue and that bubbles like a liquid. When you vomit from taking ayahuasca, this violet fluid comes out of your body; it also forms on the surface of the skin like sweat. The Jivaro do much of their magic with this peculiar stuff. These matters are extremely secret. Informants insist that the shamans spread the stuff out on the ground in front of them, and that one can look at this material and see other times and other places. According to their reports, the nature of this fluid is completely outside of ordinary experience: it is made out of space/time or mind, or it is pure hallucination objectively expressed but always keeping itself within the confines of a liquid. . Harner's work among the Jivaro did not stand alone. Since the beginnings of ethnographic reporting out of the Amazon there have been rumors and unconfirmed reports of magical excrement and magically empowered psychophysical objects generated out of the human body using hallucinogens and song. I recalled the alchemical observation that the secret is hidden in feces. "Matter that is hyperdimensional and therefore translinguistic? Is that what you mean?" I asked Dennis. "Yes. Whatever that means, but something like that, I suppose. Gad! Why not? I mean it's pretty nuts, but it's also the symbol system we brought with us running into the shamanic magic that we came here looking for (McKenna 1993).

Stephan Beyer, in his study of Amazonian mestizo shamanism, describes this fluid:

Throughout the Upper Amazon, shamanic power is conceptualized as a physical substance—often a sticky saliva- or phlegm-like substance—that is stored within the shaman's body, usually in the chest or stomach, or sometimes permeating the shaman's flesh. This substance is used both for attack and for defense. The virtually universal method of inflicting magical harm in the Upper Amazon is to project this substance into the body of the victim—either the substance itself or pathogenic projectiles the shaman keeps embedded with it (Beyer 2009).

Alchemy meets shamanism. In the McKenna's idea of translinguistic matter, the concept is broadened; the tools of the magicians of many cultures are molded in the ASC out of translinguistic matter: magic mirrors for skrying past and future, especially for that which is out of sight: penetration of secrets, another's hidden knowledge, hidden causes of disease or misfortune, or the future disposition of reality, time travel, even. "Chattering oceans of elf language" and gushes of sexually charged translinguistic matter "flowing everywhere, some sort of obsidian liquid, something dark and glittering, with color and lights within it"

Singing to the Plants: A Guide to Mestizo Shamanism in the Upper Amazon. Albuquerque, New Mexico, University of New Mexico Press.

bring together two of the most complex linguistic phenomena of the psychedelic sphere in a single wild ride.

Non-chemists ourselves at that point, we had been able to turn the condensation of spirit into the idea of translinguistic matter. Word, object, and cognition had become fused in the best tradition of the higher Tantric yogas (McKenna 1993b).

Relative to natural language broadcasting on station normal, this represents a high degree of novelty. Recombinant descriptors: *hyperdimensional obsidian violet vomited opalescent magical fluid glittering shit*. Precious bodily fluids, indeed.

Translinguistic matter as the liquid phase-state of the Stone? An unspeakable liquid linguistic substance that bespeaks objects into existence—and we've come round to the machine elves again. One flows into the other; permutations of the linguistic machinery glimpsed behind reality.

they were showing me the machinery of reality the something that could make anything the everything machine endlessly creative, above all things (AD_10.03.02 DMT post session report)

This apocalyptic concrescence of impossibly patchworked qualities is a hallmark of the novelty-laden DMT or high-dose psilocybin experience.

It is a language, but not made of words—a language which becomes and which is the things it describes. Dennis McKenna in (McKenna and McKenna 1993a)

Like DNA, as Narby observed.

6.8.3 Timewave Zero, the Novelty Principle, and 2012

Timewave Zero, the symbolic system initially downloaded in the E@LC, was McKenna's master myth. The mathematics and subsequent software instantiating the theory of novelty and the fractality of time were developed and refined over the stretch of time between the La Chorrera in 1971 and 1998 (Meyer 2006).

To know the shape of time, is, for Terence McKenna, to know the shape of human history, "the fractal mountain," the creodes of fluctuating novelty and

habit, fractally arrayed, that give to history its uneven texture of high drama and innovation interwoven with long stretches of conservative repetitions. To know the math generating the Timewave is to map the path of time into the future, a class of time travel, and a form of divination, though time distinctly differently perceived, time no longer smooth, no longer an infinite linear extension of evenly spaced intervals devoid of content as Newtonian space could be conceived as empty container, similarly void. Timewave Zero time perhaps follows the Einsteinian analogy McKenna makes for space—uneven due to the presence of masses of uneven dimension whose gravitational fields bend space.

By a similar analogy, events that represent a maximum ingression of novelty and impact on the neighborhood thereby bend time toward novelty. The Timewave condenses as a symbolic system, out of the translinguistic fluidity of the E@LC, a fractal, self-describing construction, like DNA, the biologic of life, with mathematical roots in the patterns of the I Ching.

The timewave is a kind of mathematical mandala describing the organization of time and space. It is a picture of the patterns of energy and intent within DNA. The DNA unfolds those mysteries over time like a record or a song. This song is one's life, and it is all life. But without a conceptual overview one cannot understand the melody as it plays (McKenna 1993b).

The means by which novelty ingresses into the timewave and human experience is variously imagined by McKenna as 1) A higher cortical function induced by psychedelics; 2) A higher spatial dimension penetrating our three-dimensional reality; 3) The inter-specific network of DNA, the intelligence of the Gaian oversoul of the planet. To these speculations could be added the possibilities of new cognition due to the new configurations of neurotransmitter activity, as Tom Ray's research explores (Ray 2010).

And the Timewave is accelerating toward the Eschaton; it frames its own demise, the point of maximum novelty, the end of time. This new perception of time as

uneven, fractal, eschatologically driven by its own internal process to consume it/self—or transform it/self, since, through the logic of maximum novelty, nothing will be left unchanged—is the pattern through which novelty enters the universe. Novelty is variously equated in McKenna's system as information (the difference that makes a difference, in Bateson's terminology); as increase in complexity; and as emergence, and as the felt presence of the Other. (McKenna 1998) It is contrasted with habit, repetition, and conservation of structure and qualities. In this description, it mirrors the dual nature of DNA, at once our most conservative molecule, whose structure and function have remained the same across myriads of organisms over the four billion year time period through which it manifested on Earth, and at the same time being the source of endless innovation of the biosphere, diversity, difference, experiment, and overall growth in complexity to arrive at this moment, with homo sapiens novel symbol-manipulating ability, to describe it/self to it/self, the "discourse that enfolds its own intelligence." The universe, not only the biosphere, is seen as a novelty-producing and novelty-conserving process. This idea is reflected in the uneven pace of growth and change in the biosphere with periods of great acceleration of diversification, alternated with long periods of stability where nothing much changes for eons. This unevenness matches in concept the facts of the early universe as now pictured by physicists—where a fundamental break in symmetry results in more matter than anti-matter, and hence, a universe that can—and did—manifest materially. The novelty principle asserts a similar asymmetry in time, with the balance tipped toward novelty.

The presence of purpose, meaning, and direction in the unfolding process we call a universe through time; the non-repeatability of events due to the structural individuality of every moment relative to the changing transforming process; and

the tides of creativity inherent in the process at all stages differentiate this process from the physicist's conceptions of time. The direction-independent formulation of time that characterizes physical formulas at the level of elementary particles contrasts sharply with the arrow of time we assume in all our macrophysical interactions. Yesterday, today, and tomorrow remain in proper sequence, and a process view of reality that includes principles of development on the individual level, as well as genetic and epigenetic evolution—of the species, and of culture—prevails. Fractal time integrates the primary Hermetic formula, *as above so below*, with ease, entering a scalar factor into the correspondence. Fractal time allows us to generalize from our individual experience to cosmic principles—and back, gathering us in a net of correspondences into a single interconnected system.

As Mark Pesce points out, McKenna's Eschaton resembles Ray Kurzweil's singularity, another "scientific myth," a postulated time in the near future when the acceleration of machine intelligence will have surpassed human intelligence, and humanity will no longer dominate. Pesce rejects Kurzweil's conclusion of takeover, but accepts the acceleration factor, transferring it to the acceleration of memory and information buildup and transfer capacity brought about by our linguistic evolution. He discusses DNA as the memory of life, *the song*, a very slowly developing informational structure that preserves the memory of all the interactions of lifeforms with each other and with the environment.

The perception of DNA as the universal memory of life, capable of being opened like Ali Baba's cave for the treasures within, occurs in psychedelic experience.

As the experience developed, I had an encounter with a "dragonish" entity which completely devoured me, took me down the tunnel of death/rebirth, back to the beginnings of life on Earth, while narrating this rap about the origin and purpose of DNA, eventually leading me down the long and ancient corridors of time to the present and then into the future, explaining how this planet is approaching an energetic shift that will lead it into awakening to its purpose as part of the larger galactic intelligence (Elfstone 2006).

Forging the connection to DNA as universal source of knowledge was at the heart of the E@LC.

That would be the holding mode of the lens, or the philosopher's stone, or whatever it was. Then someone would take command of it—whose DNA it was, they would be it. It would be as if one had given birth to one's own soul, one's own DNA exteriorized as a kind of living fluid made of language. It would be a mind that could be seen and held in one's hand. Indestructible. It would be a miniature universe, a monad, a part of space and time that magically has all of space and time condensed in it, including one's own mind, a map of the cosmos so real that it somehow is the cosmos, that was the rabbit he hoped to pull out of his hat that morning (McKenna and McKenna 1993).

Journeys through human history, past and future, are also to be found in Shanon's phenomenological ayahuasca reports.

Scenes from different historical periods are very common. My impression is that in all cases events were seen as being in the process of their happening in a particular place at a particular time (Shanon 2002).

The perception of the acceleration of technological (linguistic) development is the key to Pesce's contemplation of the singularity.

The Eschaton has a date: December 21, 2012. How that date was arrived at is explained by Peter Meyer, a programmer who worked with Terence McKenna from 1985 through 1998 on the development of the Timewave Zero software. The explicitly fractal mathematics of the Timewave was recognized and developed during this period. Meyer points out that the 2012 endpoint date is wholly dependent on two variable factors. First, its calculation depends on fixing a date earlier in the Timewave representing a high level of novelty in human history. McKenna's choice was the explosion of the atom bomb at Hiroshima. Mapping that date to correspond with a low point (high novelty) in the Timewave slides the endpoint date to November, 2012. Second, the choice of which of the tables of 384 values (calculations from the I Ching sequence that determine the data points from which the Timewave can be drawn; several were developed) changes the outcome

of the endpoint, as well as the overall shape of the wave. These variant tables are built into Meyer's most recent version of the software. The fixing of the date thereby depends on a number of interpretive choices made both by the software developers and the users of the systems. Evaluating events in human history as to their degree of novelty is clearly a highly personal process that will never submit to scientific certainty. The symbolic system of Timewave Zero is similar to the *I Ching* in this fashion: on the one hand, it is mathematical; on the other hand, it is qualitative and textual. Bringing together these two aspects, to give a full reading of the situation and its changes in a divinatory context, is the art of divinatory interpretation.

The same is true of Timewave Zero. A mathematical pattern is revealed, based on the analysis of first order differences between the hexagrams in the King Wen sequence, an irregular pattern. This syntactical pattern, derived from sequence and structure, undergoes a subtle manipulation where the wave is flipped over in two dimensions, yielding a wave that moves simultaneously both forward and back in time.⁵⁹

[Appendix I, Figure 45]

The wavelike formation of the King Wen sequence is depicted by I Ching scholar Al Huang as a semantic wave of meaning in the King Wen progression of hexagrams (Huang 2000).

[Appendix I, Figure 46]

Wave-like structures thus appear in both semantic and syntactical extrapolations of the King Wen sequence of hexagrams. The timewave in this sense becomes the

⁵⁹ Visualization of this process reveals the creation of a spiral wave, as the two-dimensional wave is rotated through a dimension not contained in itself, a half-twist, that creates a spiral waveform that meets itself at beginning and end, as can be seen in Figure 18b, TH.

pulse, rising and falling, of the pressure of this invisible world on the membrane of consciousness. The veil grows thin. Something is glimpsed.

6.8.4 Dimensionality

The Timewave, twisted back on it/self, forward and backward moving, makes a dimensional leap, and autopoetically closes on it/self, an autonomous system of meaning. McKenna pictures this time wave progressing biologically through a series of dimensional conquests.

One of the very large creodes that we can see at work in nature and society is what I call the conquest of dimensionality. Biology is a strategy for moving into and occupying ever more dimensions. And biology begins as a point-like chemical replicating system attached to a primordial clay in a proverbial warm pond somewhere at the dawn of time and as life develops it folds itself, it becomes a three-dimensional object, it replicates itself in time, by that means it claims the temporal dimension, . . . and finally through the advent of language it can tell its story, it can move information around not present, and as soon as you begin to code that information into stone or magnetic medium or whatever in a sense time has stopped, you are moving outward now and this very large creode seems to inform not only biology but the human enterprise as well (McKenna 1994).

A dimensional leap was at the heart of the technology of the Experiment, the transduction of sound resulting in the production of translinguistic matter.

On tryptamines it is possible, under special conditions, to hear and vocalize a sound that turns through a higher dimensional manifold and condenses as translinguistic matter, i.e., matter reduplicated upon itself through time, much as a hologram is reduplicated through space. The substance whose appearance the sounds initiate is tryptamine metabolized by mind through a higher spatial dimension. It is a hyperdimensional molecule carrying its trip on the outside of itself in "this" world. The hyperdimensional nature of this material is such that it is all material, concepts, events, words, people, and ideas homogenized into one thing via the higher dimensional alchemy of mind (McKenna 1993).

In the current phase of acceleration toward the 2012 Eschaton, the acceleration of the evolution of media and communication technologies represent "dimension-conquering phenomena designed to shrink the earth to a point. Of course the internet is the mother of all dimensional conquests" (McKenna 1994). McKenna's vision of three-dimensional linguistic forms as a dimensional move, and the

possibility of computer animation technology as a means of expression of higher-dimensional forms of language, has been mentioned above.

6.8.5 Language and the Structure of Reality

Language is an ontological category for Terence McKenna. The function of natural language in the development of the child through language acquisition is identified as the introduction of a layer of artificiality and abstraction between “the felt presence of immediate experience” and the experienced world. The built up linguistic ability creates a world made of words, which, as units of cultural conditioning, serve as the bricks with which the shelter and prison of cultural conditioning is constructed. The boundary-dissolving effect of psychedelics in dismantling this cultural conditioning can become a political act, as Timothy Leary’s Children’s Crusade of the 60s and his own archetypal drama of a real-time prison break demonstrated (Leary 1990). From the viewpoint of issues of cognitive liberty, an increasingly relevant issue in our neuroscientific age, freedom of speech presupposes freedom of thought and mindstate, and choice of reality. Proponents of the single-reality reality, cannot, by definition, entertain the possibility of choices.

To move beyond the veil of natural language, to *abandon the alphabet*, in the course of a psychedelic session is to leave behind the symbolic framework with which one constructs and supports a world, to enter new worlds, un-languaged as an infant might be, capable of the renewal of wonder, Huxley’s *folds in the flannel pants*, in the sensuous presence of a world-without-names, Eden before it became a botanical garden with labels on flora and fauna. Cognition is free to apprehend novel linguistic structures that reconstruct realities on different principles with forms of cognition that do not depend on natural language. Cognition and natural language clearly part company. To know what is going on when the *what* is mind-

bogglingly novel, and when the tools to describe the unspeakable translinguistic fluidly changing *opalescent hyperdimensional shit*...have been left behind, is it/self a cognitive adventure of such novelty that it belies description in less than extravagant language, a babble of adjectives or a contortionistic reflexivity.

While this phenomena can easily map to Hunt's differentiation between the representational and the presentational, satisfying a baseline desire for correlation of the neurological description with the phenomenological report, it is not ultimately satisfying from the viewpoint of the ASC. Maintaining a parity of realities, neither trumps the other as a reduction. The neurological description and the phenomenological report may verify or contradict each other, suggesting the need for a metasystem that can structure such approaches to multiple realities and their interactions.

The value of any given correlation could lie in the efforts to construct correlative structures that point to a meta-system, one in need of constant adjustment, but one in which the novel can ingress into baseline discourse with some useful clarity.

Language structures reality in its creative potential, from "primitive" word magic to the ingression of the Logos to create the world, *in the beginning*, and its Pentacostal reappearance in the upper room delivering a new linguistic ability—to speak in tongues, in the language-before-words that can be understood by all. The glossolalia which, in some sects of the Christian church, became a hallmark of possession by the holy spirit, in Terence McKenna's psychedelic practice becomes a lesson of the linguistic elves:

And I wondered then what it all meant, and why it felt so good (if it didn't mean anything). And I thought about it a few years, actually, and I decided, you know, that meaning and language are two different things. And that what the alien voice in the psychedelic experience wants to reveal is the syntactical nature of reality. That the real secret of magic, is that the world is made of words, and that if you know the words that the world is made of, you make of it whatever you wish! (McKenna 1988).

The magical properties of the Word, the tapping of the imagination, and the epistemological potency of translinguistic matter, postulate forms of language as the creative mechanism for creating reality or worlds. The linguistic form of DNA remains central to the psychedelic linguistic vision: its efficacy as the sacred script by which we are enunciated and maintained in existence at every moment at every scalar level; its representation as the tree of knowledge, the Akashic memory store of the biosphere; and, in alchemical extensions of this vision, DNA as the Stone it/self—an evolving Stone: the new Anthropos.

6.8.6 Ethical Dimensions of Timewave Zero

The vision of connectedness, of human beings with each other, in a reconnection with Nature, what Doyle calls the ecodelic hypothesis, is at the heart many psychedelic visions and constitutes an ethical dimension to the work in many forms. Lilly's connection to the dolphin and to interspecies language investigation; Dennis McKenna's view of the communicativeness of Nature; and the utopian technological visions of interconnectivity of Pesce, Pinchbeck, and Leary and their contribution to a transformation in consciousness for the better; Allyson Grey's energetic vision of connectedness with a sacred dimension; Jason Tucker's connection with the ingressing anthropomorphs; and the McKenna's vision of time and the conquest of entropy are variations on this theme of interconnectivity as the hoped for platform of conscious change necessary for the major behavioral shifts necessary for continued survival on this planet.

We believe that by using such ideas as a compass for the collectivity, we may find our way back to a new model in time to reverse the progressive worldwide alienation that is fast turning into an eco-cidal planetary crisis. A model of time must give hope and overcome entropy in its formal composition. In other words, it must mathematically secure the *reasonableness* of hope. This theory, and indeed the mathematical theory of dynamic systems generally, does this by securing in a formal manner the process by which transformation can naturally arise and persist out of a background of flux. (McKenna and McKenna 1993)

These visions of hope for the human future enter consciousness with visionary force in the psychedelic state. The teaching voice of the Logos, of the vine, of the mushroom, leads psychonauts on to new realizations in the service of growth in consciousness, with that very consciousness expansion being held as the pre-condition of effective change in human social organization. The old Adam, exile from Eden, a dirt farmer doomed to die, is posed against the cosmic Anthropos, the new man, the completed or restored endpoint of humanity. It is a vision of connectedness, of boundary dissolution and trust.

When the boundary dissolution became all too real in the days following March 4th, 1971, and telepathic communication and access to information not normally available through this mind-meld established itself for days after between the McKenna brothers, a new reality was temporarily created. This reality stood in sharp contrast to the reality of other members of the group, who, not experiencing the same phenomena, saw the form of thinking as delusional and schizophrenic, a *folie a deux* to be remedied in due haste. Terence McKenna's utterly real (to him, by the rules of self-evidence) and at the same time self-invalidating sighting of the lenticular roving vehicle at the end of the time in La Chorrera, whose presence had been felt throughout the days preceding and following the Experiment, capped the craziness with a cultural icon of confirmed crackpottedness, the UFO, marking the whole experience as fringe theatrics, not to be taken seriously. To trust in the occurrence of phenomena which are not part of baseline reality (telepathy—the connectedness of minds when ego boundaries have dissolved; connection to knowledge) is no small task. The task of communicating such unspeakabilities highlights the gap—the reality gap—between baseline and some forms of psychedelic visionary states. These difficulties only increase when a messianic vision is put forth of the Eschaton, the end of time toward which all history and

cultural production and consciousness is accelerating as part of a universal process built into the structure of time itself. The mission of the transmission of the vision, demands a level of rhetorical skill in packaging the preposterous that Terence McKenna, deputized by his brother Dennis during the Experiment as "The Teach," exercised through books and hundreds of taped lectures.

He referred to me as "The Teach," not teacher or teaching but the Teach, a kind of personified alien ambassador empowered to negotiate the entry of the human species into the councils of higher intelligence (McKenna 1993b).

6.9 Diana Slattery: Glide

The Glide project spirals around a central theme of the mutual evolution of language, game, and consciousness, describing and modeling one possibility for an evolutionary writing system, Glide. The 27 signs of the Glide language, originally a gestural language, are inscribed both as static glyphs and morphing forms. The mutable medium of the computer opened the possibility of dynamic inscription of linguistic signs for exploration. The communication technologies spawned in this medium (itself rapidly evolving) invite and support symbolic systems whose signs and their sensual attributes can shift and change, producing meaning on expanded channels. The computer (itself constructed of layers of language) provides an environment in which is it possible to interact with a linguistic system and to give that system, through such algorithmic means as genetic or evolutionary programming, "a life of its own," allowing the signs to actively bespeak themselves as well as to passively carry our messages.⁶⁰ Language itself becomes a living entity. The software developed in the research process, provided a variety of means to interact with the Glide forms, beginning with the premise that I am in dialogue with a language which is teaching it/self to me.

⁶⁰ Tom Ray's Tierra artificial life system, an evolving world in a computer, is one such example; mathematician John Conway's Game of Life is an early instantiation.

Just as Glide expresses itself through multiple media—the gesturing body, the constantly rewritten body of languages we call the computer, and on that most mutable of media, the mind—so the Glide project communicates these ideas in multiple voices: through the narrative of a novel; using interactive software for exploring Glide; creating animations; through theoretical writing and game design; through psychedelic session reports documented the exploration of Glide in ASC; and in performance including visual, musical, spoken, and interactive components. Together, these multiple viewing-points produce a labyrinth of interconnected and interflowing meanings mirroring the networks of linked Glide glyphs called mazes.

6.9.1 The Bright Trauma

A download experience creates a lasting impression, similar in some ways to PTSD, no less obsessively intruding on the business of daily life, only with a shift in valence, a bright trauma, an ecstatic illumination that centers and focuses attention, mind, and heart.

Michael Winkelman describes psychedelic action as psychointegrative. The concrescence of information and knowledge systems that the McKennas experienced in the E@LC resulted in the symbolic system Timewave Zero. The experience of this cognitive ecstasy as a radioactive core energizing a lifelong obsessive pursuit of its exegesis, is a testament to the power of psychointegration. The experience it/self becomes a lens (one of the McKenna's totality symbols) through which the universe can henceforth be viewed and understood.

The relation with the Other was opened and cemented, through repeated psychedelic experience in the unpacking of the Glide download. From the first session, the presence and the voice of the Other was heard and felt, permeating my own sense of self, but utterly distinct. A dialogue began that has gone on for 11

years, across a variety of states of mind. Contact experience is the heart of Xenolinguistics; the alien Other finds symbolic means—language—to transmit its message from the hyperdimensional realm (or whatever you care to call the psychedelic sphere) into baseline reality. The Other uses whatever means are at hand in the psyche and experience of the downloadee, to patchwork a message.⁶¹

The name *Glide it/self*, given in the original download, is just such a patchwork of ideas and references, later unpacked. Glide, in my associations, referred to 1) John Conway's "Gliders," emergent computational creatures arising from his software, "The Game of Life" that seem to behave like semi-autonomous forms, alive in some fashion in the computational world of cellular automata;⁶² 2) the gliding movements of Noh theatre actors, where the costumes can seemed filled not with a body, but with a weightless spirit; 3) the movement of the long-legged fly of Yeat's poem,⁶³ and 3) the movements of the Glides themselves.

6.9.2 Glide Mythology

Myth is the overarching term I will use to capture the multiple forms of narrative that wrap Glide in meaning and purpose, an origin, a context and a world. In the case of the Glide project as a whole, myths emerge from multiple levels of consciousness: the storytelling of *The Maze Game*; the visions and histories unfolding over the course of the psychedelic sessions, recorded in the ADs; and the

⁶¹ Including in my own case, the explication of an earlier download experience in 1974 in an ASC brought on by high purpose and sleep deprivation. A lecture I was giving to a group of students in a communications class turned into a story that arose newly and spontaneously, a myth of the devolution of consciousness over time, that included the germ of the idea of the game in *The Maze Game* as the central structure of the novel 28 years later.

⁶² An animation illustration of Conway's gliders can be found in the Wikipedia article about Conway's Game of Life. http://en.wikipedia.org/wiki/Conway's_Game_of_Life. The article states, "From a theoretical point of view, it is interesting because it has the power of a universal Turing machine: that is, anything that can be computed algorithmically can be computed within Conway's Game of Life."

⁶³ "Like a long-legged fly upon the stream/Her mind moved upon silence."

mythologems of the xenolinguists—both their form and their content, that show an overlap of core ideas, visions, and explanations.

Myth is one way the unspeakable reveals itself in human terms. The masks of the Other, the archetypal figures met as teachers, guides, opponents, allies, aliens, and theriomorphs, are mythical. (insert quotes from ADs, from Shanon). Myth is a means of navigating multiple realities.

For the loquacious mushrooms encountered there have spun a myth and issued a prophecy, in quite specific detail, of a planet-saving global shift of consciousness. They have promised all that has happened in my life over the last twenty years, and they have promised much more for the future. (McKenna 1993b)

The myth of a global shift in consciousness is present in varied forms in the literature of psychedelic self-exploration. Timothy Leary's eight-circuit model of the evolution of consciousness proposes dormant functions in human consciousness that can be activated by psychoactive drugs and brain/mind technologies such as Neurolinguistic Programming (Wilson 1977; Leary 1979; Leary 2001; Leary 2003). The 2012 meme, in both its Pinchbeckian (Aztec) and Arguillian (Mayan) versions include narratives of global—or galactic—shifts in consciousness (Pinchbeck 2006) (Arguelles 2002).

Myth is the form in which the explanations given in the psychedelic sphere appear, translated, in baseline reality. What is reality in the psychedelic sphere is framed as myth at baseline; what is reality at baseline, expressed in natural language, reveals its narrative, dramatic, and constructed form when viewed from an ASC. The relationship of the real and the mythical in our culture demotes the mythical in terms of truth value, and promotes the scientific explanation as the reliable form of knowledge. This status parallels the minor role that ASC in general and as a form of knowledge acquisition in particular plays in our culture. The

imbalance is characteristic of what Laughlin calls a monophasic reality (Laughlin 1990).

How this shift in epistemological balance can take place, how ingrained 'reality tunnels' or creodes are relinquished and the mythical becomes real is a rhetorical process, a seduction, seductively portrayed.

The Other approaches us through the imagination and then a critical juncture is reached. To go beyond this juncture requires abandonment of old and ingrained habits of thinking and seeing. At that moment the world turns lazily inside out and what was hidden is revealed: a magical modality, a different landscape than one has ever known, and the landscape becomes real. This is the realm of the cosmic giggle. UFOs, elves, and the teeming pantheons of all religions are the denizens of this previously invisible landscape. One reaches through to the continents and oceans of the imagination, worlds able to sustain anyone who will but play, and then one lets the play deepen and deepen until it is a reality that few would even dare to entertain (McKenna 1993b).

The final determination of what is real and what is myth for the individual psychonaut is a matter of personal experience, epistemological preference, and relative commitment to the proprieties of consensus reality.

6.9.2.1 *The Maze Game: a myth of language and game*

The Maze Game relates the origin story of the Glide language, how it became the basis for a game that absorbed an entire culture.

[Appendix I, Figure 47.]

The pollen of the giant blue water lilies distilled into a powerful and pricey hallucinogen, *The Wine of the Lilies*. Harvesting the pollen was a delicate task. The lily pads, large as they were, could not support the weight of an adult human body. The omnivorous lily had a reflex of tipping potential food into the water to be tangled in the roots, and absorbed. . . Their rapid and efficient motion from lily pad to lily pad gave them their name: Glides. . . The Glides not only harvested, they cross-pollinated, improving the lily. . . The lily expressed its gratitude by teaching the Glides a secret, silent language. Breathing the raw pollen, day after day, the Glides listened as the lily bespoke itself through three shapes based on the gestures of their cupped hands at work: curved up as they scooped the pollen; curved down as they emptied their palms into the baskets, and joined together in the gesture of the wave (Slattery 2003).

The novel, *The Maze Game*, embeds a psychedelic vision of the Glide language.

The novel was directly influenced by psychedelic experience, prior to and during its composition and editing.

The natural surroundings in which the hallucinogenic lily grew, and the anatomy of the lily itself became the central metaphors of the 27 glyphs of the Glide symbolic system. The Dancemaster, under the influence of the Lily, sees the Glide signs emerge from their natural environment.

[Appendix I, Figure 48.]

The Lily drifted into my body—lungs, belly, heart, and blossomed in my mind. I saw with the eyes of the Lily that the Lily was bespeaking itself all around me. I was no longer on the concrete floor of the common room, but out on the lily pond, with endless acres of great blue blossoms patterned rhythmically on pads, the giant overlapping pads alternating in swooping patterns with the tidal waters, which rose and fell on long, gentle waves. The waves moved my breath and my breathing moved the waves. I was a single lily, open to the wind and waves, holding my brilliant golden pollen up on proud stamens, offering, waiting to receive, sending out rays of light from their interior which were threads of scent. A net of fragrance overlay the pond, so brilliant it passed into invisibility. I waited with a tremendous sense of expectation, a tingling aliveness that rippled in time through space to the other blossoms. Then I saw them—nearly weightless beings gliding back and forth across the floating fields like pieces on a living, undulating board of some infinite game whose rules were invisible to me. Their moves seemed both haphazard and purposeful. They changed direction suddenly for no apparent reason, like dragonflies in mid-air. Their cupped hands stroked over the blossoms in quick, swooping motions like the flight of sparrows, like a benediction. Their paths, which echoed on a larger scale the gestures of their hands, curved and criss-crossed, linked, and doubled back, leaving faint traces as they passed. From those traces, patterns were emerging. Their paths spoke a language in their making, and in the traces left. Like water flowing down a rocky streambed, their patterns never repeated themselves, but were always the same. The pattern was the motion, but the motion had a stillness spoken in its pattern. . . I sank swiftly, mountain-heavy, into the dim tangled realm of water and spiraled stems, moving on a deeper wave. Puffs of muddy water rose from the slimy bottom. I touched the breathing roots, was sucked into the caverns of the mud, where the great roots waited for their food. Obscured, dissolved, distilled—still I felt the waves' slow penetration, in a deeper frequency. The pulse of the waves was the moons' desires, yearning toward the lily, turning away, a great maze of desire, desire and death. I knew it was night as I rose, evolving against gravity upward through the stem's coiled tunnel. Emerging in moonlight, I knew I had danced and died. The Glides were gone. The blossoms were closing now, one by one, in waves across the pond, like a chord struck. The visible language of the lily, singing itself into sight, layered, pad over pad and petal over petal. Now I could see the Glide's traces, a silvery lattice overlaid on the darkly breathing maze of lily pads. The sheen of moonlight on the irregular, shifting spaces between the clusters of the lily pads spoke too, the language of absence. The lilies gathered themselves in clusters, which then spoke single signs. I rose above the pond, saw acres of lily clusters, moving softly, dreaming below. As the tides shifted, larger clusters separated, drifted apart; smaller groups gathered into one. The silvery maze of the night-path of the Glides was gently skewed, stretched, pulled apart as it faded from sight. Even at this height, the lily spoke the same language. The smaller mazes melted into single signs. Within the expanding labyrinth, waves, and waves within waves, the moving surface of a stillness, crossed over each other, lifting the lilies, moving the waves of fragrance, sinking back. Moving, changing, but always in balance, maintaining balance not by standing still, but, like the Glides, always moving on, circling back, learning the

moves of a game that traced a path among the lilies that changed beneath their feet (Slattery 2003).

Glide forms reveal themselves in the Dancemaster's vision. Glide is a language of waves, fractal nestings of waves in maze-like patterns. Waves are revealed in the Glides hand gestures, their movements across the lily pond, in the motion of the plants in the tidal water. The Dancemaster passes through the body of the Lily: *root, coiled stem, pad, flower*—fundamental Glide signs emerge. The vision is synaesthetic, combining the visual, the kinesthetic, and the olfactory.

So I hung myself up again between two worlds: the electric frying pan, stained with body fluids, dented by crashing heads—and the shimmering lily pond, the world where every element spoke, and told its meaning, unto itself and connected to all the others. The Glides were signing to each other, their hands tracing the same curves as the larger pattern their bodies traced as they circled on each pad, gathering pollen. And the shifting pattern of lily pads over the pond—it was all a maze of Glide traces. The maze clearly had meaning, even if only the Glides—and the lily—understood it. Then it happened. I don't know who or what turned on the juice, but the answer shot through me with a jolt. The two images fused. The maze-paths of the Glides were superimposed on the griddle. The irreconcilable conflict between beauty and brutality, meaning and meaninglessness, art and torture was resolved, there in the maze of signs. The Dance of Death was not a show. It was a *game*.

...

The first beautiful, curving Glide signs, the visual language of the Glides, were drawn by MyGlide on the back of an ice cream wrapper with a piece of charred bone from the dumpster, as she sat on the edge of the griddle where her very own flesh had fried, where her hair had flamed away. (Slattery 2003)

Language, maze, and game emerge in a single visionary moment, the mythical origin of Glide.

[Appendix I, Figure 49.]

Moving through the maze in the combat of the game is an act of metaphoric reading described by media theorist N. Katherine Hayles:

It is not merely a metaphor to say that Glide is metaphoric. Metaphor, which joins two disparate things together by asserting an identity between them, is here enacted physically by joining one glyph to another to form a larger topographic shape. Just as metaphor creates an emergent meaning that is more than the sum of the parts, blossoming forth as a realization inhering in neither component individually but

rather growing out of their interactions, so the meanings that emerge from the glyphs and the larger mazes they form come from complex interplays between root, secondary and tertiary meaning of components that themselves can transform into other shapes as the reader plays with deconstructing the maze into different glyphs (Hayles 2001).

Lily pond morphs into maze; maze becomes game. Glide translates the form of the lily's body, its wavy environment and hallucinogenic properties into the fundamental metaphors from which the cognitive system is built.

6.9.2.2 The ADs: Evolution of Glide myths in the psychedelic sphere

With the initiation of the ADs in 1999, in which Glide was explored in the psychedelic sphere became its own mythical enterprise of a progressive forming of lines of communication with the Other. The Glides were always present, often silent in the sessions. MDMA sessions produced the steady presence of an interior voice, "speaking for" the Glides. Psilocybin roused the rainbow serpent teaching the gestural movements of Glide by moving the body in wavy forms moving through the whole spine, spiraling through the arms and hands, out into micromovements of the fingers.

easier to focus now isn't it—but hang on—vibrations getting stronger—pay attention to body—note—the energy swirling gathering in center coiling in tight spiral—ultraviolet Doppler shift: extreme approach velocities (AD_03.12.12)

Psilocybin also potentiated the BE ME phenomenon and the introduction of the archetypal figures (Elrond as Glide 'ambassador'). The main dialogues occurred in a domed space (sometimes experienced as 'the peacock throne room'). The whole initial warp, the transition into the full psychedelic space, became a kind of entrance screening process in which all human 'baggage' underwent a penetrating review and acceptance process. At times this was experienced as a kind of psychic decontamination chamber in which hosts of the 'munchkins' penetrating every

corner of body and mind took me to whatever level of self-confrontation seemed to be necessary to proceed.

your willingness to carry the moment of horror—of reproach and rage—look at it all—which you have felt—relaxing see dome of peace Holy Spirit don't deny anything the horror or the saving grace truth of the heart truth of experience let it all be there in this time moment of truth in all times in the full arrival of one/self exact particulars exact happenings so hard hard hard to accept your SELF pages flipped "ACCEPTANCE" hard hard hard (AD_03.12.12)

These periods of self-examination often involved the recovery of long-buried memories of considerable psychological 'charge.' They were the pre-conditions for the dialogue in the Dome; mythically, these examinations functioned as the tests and tasks for the questioner, the requirements of the quest.

Over the course of years, several 'operations' were undertaken in and around the bodymind, to repair what was broken or emotionally clogged, especially in the region of the heart, and to add a series of transdimensional prosthetics, useful in perceiving and navigating the psychedelic sphere. Especially useful was the dome, a hemispheric structure of extremely fine and filamental gold wires that define a space of transmission and clarify the incoming signal, reducing noise and static. The placement of a sapphire crystal in the area of the pineal, or third eye as a conduit for deep blue-violet energies to be absorbed or transmitted was an event that mapped to the McKennas' translinguistic matter. These prostheses are more like magical instruments acquired in the quest for knowledge, accepted on their own terms, utterly real and useful in their own reality, functioning according to the rules of the world in which they originate.

A new narrative of the transformation of self from an experience of single self, to a multiple self, evolved as the higher-dose area of psilocybin was opened and explored. The BE ME relationship became a BE WE, as the original archetypes fused with the already altered sense of self. Other personalities moved in and out

of the shifting sense of self in the psychedelic states as needed for the sake of understanding some point from a different point of view. For instance, to view the states of conflict in the world of baseline reality, it was useful to experience the beingness of a warrior-monk; to appreciate a certain form of exaggerated delicacy of floating forms, the body-sense and aesthetic sensibility of a woman of a Chinese court, centuries ago, was helpful. This skill of shifting personalities was a developed form of the rapid-fire 'slip-sliding' through personalities in the LSD experience.

[Appendix 4, "Contact with the Other"]

The Glide project, psychedelic in fact and fiction, subverts the categories of fact and fiction; myth and personal narrative; self and Other. A language emerges from, enfolds, and tells the story of its people, their culture, and their episteme. Glides claim the lily has an agenda: the human evolution of consciousness. The process of psychointegration—the ability to connect and use the parts of the mind held separate in ordinary consciousness (the rational, the emotional, the transpersonal, and the autonomic) and by our cultural conditioning—is both imagined and enabled by using additional sensory modalities to give and get meaning from linguistic signs, resulting in changes in cognition toward visual (presentational) thought. The lily gave the Death Dancers the language so they could construct the mazes of the game. And in the myth, that game, the Dance of Death, played in mazes made of language, was the only way to learn the language, and how to think in Glide. The lily told the Dancers to engage every sense, reserving the aural for existing speech. The lily pointed out that light was faster and could travel farther than sound, that the dappling of light on lily pads, on out-running tides, was as intimate as the love's whisper. The lily explained that Glide would exercise their minds in making metaphor, and help overcome the limits of

sequential memory and information overload. But the lily is a stern teacher, making the ability to read and think in Glide a matter of life and death, the game board of meaning we are engaged in as mortal humans. The meaning of life, one's individual path through the maze, emerges only in the light and sight of death.

6.9.3 Software

Two technologies were developed as research tools to explore the Glide symbolic system and are interwoven in the technoetic practice. The first is the psychoactive practice, recorded in the ADs. The second is in the interactive software designed, developed, and used to read, write, and interpret Glide linguistic formations—both static and dynamic, two-dimensional and three-dimensional.

A detailed description of the Glide software can be found in Appendix IX: Glide Software. The software is listed in order of development from 2000—2009.

[Appendix IX: Glide Software.]

6.9.4 The Idea of a Visual Language

We no longer live in a world in which information conserves itself primarily in textual objects called books. In a world in which not only information but meaning struggles to escape its customary channels, perhaps the best way to serve the scholarly muse may not be to continue to play out the moves that served perfectly in the age of the scriptorium and the inescapable facticity of data (Stone 1998).

Visual language is a term shared by communication theorists, graphic designers, painters, linguists, semioticians, art historians, and the scholars, educators, and practitioners of sign languages, whether Native American or those used by the deaf. The idea of a visual language points toward a new representation of language itself, a non-aural form of language, different than natural language. The idea of a visual language explored here could not exist without the computer and the communication technologies it enables, more specifically, graphics, visualization, animation, and simulation technologies. The computer, a procedural (rule-based) machine, is especially good at visualizing process. Chemistry,

mathematics, medicine, physics, decision science and many other fields use this capability for discovery, application, and education. The hierarchy of computer languages builds from the elegantly minimalist zeros and ones of machine language to the most recent developments in visual language for software design that utilize iconic forms.

Glide is a symbolic system, some properties of which distinguish it from the writing systems of natural languages as currently practiced. Glide signs are hypertextual, gestural, and transforming. The visual properties of Glide signs—size, orientation, proximity of signs, maze gestalts, color, texture, motion (direction, velocity, acceleration)—all contribute to their meaning.

Glide as a writing system has aspects of the pictographic, the logographic, and the ideographic, but the terms rest only lightly on these signs, as the signs, when encountered on their own terms, and especially in ASC, point to something within meaning but beyond the ways of natural language.

The logographic sign carries meaning without reference to sound.

Such systems have the advantage that one sequence of symbols carries the same meaning to people speaking entirely different languages, even though the phonetic form in each language might be completely different. The traditional Chinese writing system makes extensive use of logographic representation, and has the advantage of serving as a link among the many varieties of modern Chinese, some of which are mutually unintelligible in their spoken forms (Southworth and Daswani 1974).

Glide signs can be translated into natural language, loosely.

Semantically the glyphs function somewhat like ideograms, with each mark conveying three root meanings along with successive layers of secondary, tertiary, and sometimes quaternary connotations. . . . To run a maze of glyphs, then, is both to enact a physical performance and apprehend the subtle metaphoric connections that comprise each glyph in itself and the larger meanings that flow from several glyphs joined together (Hayles 2000).

[Appendix I, Figure 54.]

Their ideographic nature and the flexibility of assignment of parts of speech connect Glide signs to Chinese. Iconic systems such as those for traffic signs or circuit components in their simplicity of form resemble the ideographic elements of the Glide glyphs.

Pictographic associations can be made, but they are more abstractly metaphorical than strictly representational. The back-and-forth movements of eye and mind in a Glide maze that examine context and combine and recombine meaning connect it to the reading of vowel-less Hebrew where context (in the absence of written vowels) resolves the ambiguities and provides the clues to which word is meant.

Signed languages, silent and gestural, relate to Glide's fictionalized cultural origins.

Enhancing the richness of interpretation (which is also always a performance) is the complexity of decoding. The compound glyphs that make up mazes can be taken apart not just in one way, as when one decodes an alphabetic word into letters, but in multiple ways, each of which is an appropriate reading of the maze (Hayles 2000).

Glide signs, moving, twisting, spiraling in the 3rd dimension with LiveGlide, exceed the affordances of natural language, making meaning in a novel manner that requires analysis on its own terms.

[Appendix II, Items 4—7.]

[Appendix II, Item 3.]

When a symbolic system has the capability—enabled by new communication technologies—to go beyond a static representation of fixed visual properties and positions (words lined up sequentially on a page), several dimensions are added to act of reading and writing. Once the possibility of change over time, or process, is introduced, the variety of properties that can be changed, alone or in combination, is limited not so much by technology as by visual imagination. Color, shape, size, transparency, orientation, movement (velocity, shape of path, acceleration), texture

can all be varied dynamically in the service of the communication of meaning. Spatial dimension can move from the two-dimensional plane to the three-dimensional space, or, conceivably, to a fractal dimension.

These expressive qualities are, of course, well known to graphic designers for print and media. They have also been specifically excluded from "serious" communication: academic, scientific, legal, and literary uses of written text are largely formalized as to color (black on white), shape (limited fonts), line length and spacing, and size. The written signs of popular culture (magazines, TV, movies, posters, graffiti), persuasive messages (advertising) and 'art' (high or low) have no such limitations. Letters extrude, dance, appear and disappear, rotate and explode on movie, TV, and computer screens. Politicians and rock stars proclaim their personalities with their typography, color choices, and layout. Words and images miscegenate promiscuously.

The signs of the emergence of visual language can be seen everywhere that written text is not confined by convention. As in the examples above, the written word is being pushed to the limits of form, motion, and intelligibility. The development of written language in the West proceeded from the pictographic to the phonetic, resulting in the Hebrew and Roman alphabets. Chinese went from the pictographic to the logographic, adding the phonemic as well. The emergence of visual language seems to be following the same pattern. In the world of personal computer applications, international public signs, business logos, and MacDonalds' cash registers, we have entered a new iconic stage of visual language with our literal icons of paintbrushes, pens, smoking cigarettes, children crossing, world globes, and Big Macs. Interface metaphors—the ubiquitous desktop with files, folders, and pages—bring the environments and artifacts of our physical space to cyberspace, a transitional strategy to create familiarization for the user

navigating in a strange world. If the development of visual language follows the pattern of written phonetic and logographic languages, one could predict the next stage to be the abstraction of a system of visual signs into a limited number of conceptual units that can be combined and recombined, and dynamically manipulated for their expressive qualities. Glide symbols model the possibility that, using the highly interactive capabilities of computer technology, real-time communications between human beings in cyberspace can be expressively embodied in abstract forms. Abstract forms could go far beyond the literality of emoticons.

The visual properties of Glide signs—size, shape, color, relative position, motion, rotation—can be varied dynamically in expressive ways. To make these variations in visual properties available to the 'writer' in Glide as part of the construction of a maze—static or animated—is to draw on the wealth of tradition and knowledge from fields as varied as the psychology of perception, art history, aesthetics, advertising, the cross-disciplinary study of symbols, cultural anthropology, and graphic design. How we *read* the visual properties of texts (in the broadest sense of both *text* and *read*) is a subject beyond the scope of this work.

If expressive visual properties are made intrinsic to a linguistic symbol and can bear meaning at the same primary level as the shape of a letter, the bands of expressive potential, and their combinations multiply exponentially. Visual language as modeled with LiveGlide incorporates qualities we associate with traditional art forms per se: painting, sculpture, dance. 'Reading' and 'writing' a visual language is envisioned as a progressive learning, a relatively lengthy procedure, in which artistry could be developed to higher and higher levels with practice, in which both customary uses and individual style could develop, and where the art of reading, and the authorship of interpretation, would be as

important as the authorship of the writing. The mutual activity of collaborative construction of a maze (the Collabyrinth software) is an experiment in opening a new kind of written conversation.

6.9.5 Forms

Glide forms are built from a single formal element into morphing mazes of great complexity that, in the story world, are the field of meaning on which the Maze Game is played.

Single strokes: The formation of Glide glyphs begins with one shape, the semicircle.



The semicircle inverts, becoming the second stroke.



The third stroke is formed by the combination of the two semicircles into the wave.



Two-stroke combinations: These three elements form three basic pairs. The circle:



The up-teardrop:



The down-teardrop:



Three-stroke combinations: The three basic lines combine to form 27 3-stroke glyphs, the basic units of meaning in Glide.

[Appendix I, Figure 54.]

Six-stroke (two-glyph) combinations: The 27 tri-glyphs combine to make 729 hexa-glyphs.

[Appendix I, Figures 55 and 56.]

[Appendix II, Item 2.]

Reading through the hexaglyph in either direction reveals two interior glyphs which contribute to the meaning.⁶⁴

[Appendix I, Figure 57.]

The 729 hexa-glyphs form the basis of the Glide oracle.

Links: Links are created by contiguity. Deep links are formed when glyphs overlap their lines, interpenetrating their meanings.

[Appendix I, Figures 58 and 59]

The meaning between glyphs morphs where their edges touch, producing ever-shifting margins and centres of meaning. (Guertin 2005)

Glide takes hypertextual structure down to the level of the language itself.

Prominence is given to the links themselves, as well as to the branching paths. The links are points of branching, but also form new meaning in and of themselves in the form of the link. Links can be created by proximity—one glyph touching the next at one or more points. Links can also be formed by the overlapping of

⁶⁴ In the Glide oracle, this hexaglyph is translated differently, as “Goals,” illustrating the semantic flexibility of a visual language, the locus of metaphors around a single glyph.

matching parts of two glyphs, forming a "deep" link and a tighter structure. These overlaps can also create homonymic or punning ambiguities, as the composite/linked glyphs could be made from more than one pair of glyphs in combination. Further, an individual link can have a variable number of strokes participating.

[Appendix I, Figure 60]

The yellow circle encloses a single stroke link. The red and green circles enclose more complex joining of strokes.

Mazes: An arrangement of three or more tri-glyphs is called a maze. A maze offers multiple entrances, multiple paths along which to trace meaning. Visual language becomes hypertextual, offering choices at the linkages of meaning. Negative spaces reveal new shapes. Interior spaces—visual silences—offer additional meanings—or a place to rest in the maze of meaning-making. Repetitions of circles, of waves, create interior rhythms. The maze as a whole, a gestalt, has its own physiognomy. Meaning shifts between an apprehension of the whole and focus on the individual glyphs, their links, and their shifting paths of meaning. The movement of the eye, the mind's eye, and the mind construct a path of glyphs through the maze of meaning.

[Appendix I, Figure 61.]

Hypertext, a term coined by Ted Nelson in 1976, has been termed *non-sequential* writing. (Nelson 1987) The term *non-linear* is frequently used as well, though both terms are misleading. All uses of language, whether spoken, written, read, or signed are linear and sequential; one word, gesture, or image follows another in our perception, utterances, and comprehension. All conventional forms of writing begin at a point in time and with a point (the first mark) and move in order through time. Though silences make this line discontinuous, it still proceeds, it is

still a line, until it stops. We are pinned by time to paths. The point with hypertext that leads to the use of “non-linear” and “non-sequential” as descriptors is that, due to branching and linked structures, multiple possible sequences are offered, and the writer/reader of a hypertext has a continuous stream of choices presented. A print book offers one primary sequence (with the possibility of skipping around).

A hypertext proactively presents a sequence of choices, combining to form a branching and linked structure. Metaphorically, the difference is that between the classical, unicursal labyrinth and the maze of branching paths, though in practice, the terms labyrinth and maze are often interchanged. (Hayles 2000) Glide structures are called mazes because the glyphs can be read as variety of sequences. The maze itself can be entered at any point, with no preference being given to left/right or up/down sequencing.

6.9.6 Semantics

When the Glide glyphs first appeared, in the initial download, the first question became, “But what do they *mean*?” The story world offered a unified set of meanings that metaphor outward from the elements of the Glide world and the life and body of the hallucinogenic blue lily. The effort of translation exercised this metaphoric semiosis into natural language.

[Appendix I, Figure 54.]

The 729 hexaglyphs (plus another several hundred formations including all deep linking formations, as well as the 729 transformations of one glyph into another) were each translated into short poems or aphorisms.⁶⁵ The exercise was valuable

⁶⁵ The Glide oracle can be accessed at <http://www.academy.rpi.edu/glide>. It contains links, at the upper right-hand corner of the interface, links to the situations and transformations “browsers” where all the texts can be found. A Flash plugin is needed.

in coming to terms with their mutability. It is clear that, were I to re-translate the two sets of hexaglyphs again today, the set of poems would likely be quite different. The exercise is similar to the interpretation of the visual images of a Tarot reading in varying configurations, or the interpretation of an *I Ching* hexagram: intention and context, "set and setting," are all. The final lesson from the exercise was that translation into natural language was a reductive and limiting way to extract meaning from Glide. I was missing something vital by retreating to natural language; Glide insisted on being confronted on its own terms, in its own territory, without recourse to natural language. The journey to meaning, the semantic quest, needed to extend beyond the nets of natural language. High-dose psilocybin was the instrumentation for this move.

abandon the alphabet (AD_03.05.14)

Once outside of natural language, when cognition was very much present but without the scaffolding of natural language, the nature of Glide meaning began to reveal itself at another level. The speed of cognition in significantly altered states increases greatly. Natural language, if one can think of language as software, is very slow, viewed from ASC, at processing ideas by associating them with words, the internal lexicon of natural language. In the high dose psilocybin state, meanings converge or correlate; ⁶⁶a single symbol can hold multiple meanings simultaneously instead of sequentially; many paths of meaning can be held in the mind at once. The symbols radiate their meanings without recourse to words. The "ineffability barrier," if by ineffable one means "can't English it" appears, but is in part overcome once the alternate routes to meaning presented in the psychedelic

⁶⁶ This observation, made in an ASC, can be taken as a data point that validates Farmer's assertions about correlative thinking in ASC.

state are accessed. Creating and moving through a Glide maze in an altered state unfolds narratives, which embed concepts, emotional shifts, states of mind, and aesthetic colorings. Further, and most important to the making of meaning, the symbols are experienced as sentient, as actively bespeaking themselves. The Glide symbols become the Glides become the symbols explaining themselves. The question *What do they mean?* gave way to the question *How do they mean?*

Glide represents semantic silences as space. The mazes are like nets or webs of meaning. As in the negative spaces of a Henry Moore sculpture, or the figure/ground ambiguities of the face/vase type, the spaces within and between glyphs show patterns in themselves. Repeated patterns of circles, paisley "teardrops," the smaller or larger spaces between glyphs, and the larger and smaller "wave" formations also have an effect on the overall reading of the maze. The wave patterns that emerge in a larger maze can be experienced as variable rates of vibration combining in the meaning of the gestalt.

[Appendix I, Figure 62.]

In the psychedelic state, a constructed maze is always an arbitrary segment, a piece of an infinite pattern of vibratory states in motion and transformation: the fabric of reality presented in the abstraction of waveforms. Henry Munn describes this perception of pattern, thus:

On the mushrooms, one sees walls covered with a fine tracery of lines projected before the eyes. It is as if the night were imprinted with signs like glyphs. In these conditions, if one takes up a brush, dips it into paint, and begins to draw, it is as if the hand were animated by an extraordinary ideoplastic ability. Instead of saying that God speaks through the wise man, that life paints through him, in other words writes, since for them to write was to paint: the imagination in an act constitutive of images (Munn 1973).

Psychonaut Simon Powell perceives pattern everywhere, a holistic pattern that unifies the perceived diversity of the universe in the psilocybinetic trance. His work, *The Psilocybin Solution*, pursues this vision of universal pattern through a

theory of neuronal patterning.(Powell 2009) A succinct vision of wavelike patterning and its deeper sensed meanings is described in *Sacred Ground*:

I sat gazing at a small shallow pool of water at my feet, in which I discerned a perfect reflection of the blue sky beyond the glass roof of the Palm House above me. As I considered this perfect and infinitely deep reflection, I thought it remarkable that light could be so reflected without loss of information. Then a drop of water fell into the shallow pool from above, having originally condensed from the periodic fine sprays of water that serve to keep the greenhouse humid. This single drop of water temporarily shattered the perfect reflection of light, and instantly there appeared a series of expanding circular ripples that flowed out from the minute splashes. These ripples flowed into one another causing a series of unique interference waves which were eventually absorbed by the pool as equilibrium was restored. . . I sat mesmerized by the process, particularly at the point where the whole image resolved itself. I felt convinced that here, at work, was an important universal principle or universal process. . . As the holistic pattern of reflected light coalesced again and again, I felt an ecstatic sensation of wholeness as if I too were merging with the whole picture (Powell 2008).

A Glide maze resonates with the physical concept of the universe as a pattern of interlocking, interacting waveforms at all levels of existence, from the quantum level, or below, to the string theory postulates, up to the macro level in which we perceive baseline reality. This physical resonance is one of its fields of meaning.

The signs, laid out statically, on a two-dimensional surface form webby, mycelial mazes which, when the glyphs transform, linking and unlinking with each other, seem like a kind of circuit operating with many points of change and connection. A Glide maze, activated by transforming glyphs, seems like an abstraction of the organic, constantly shifting circuitry of the brain through which electrical and chemical signals pulse, where synaptic connections are formed and broken in inconceivably complex patterns going about their business of constructing and projecting a world around and inside us, imbued with consciousness, in some manner we have barely begun to understand. When glyphs transform, the link-patterns change; patterns of connectivity propagate through the circuitry. The resonance with biological structures, such as neuronal patterns and mycelial mats is another of Glide's fields of meaning.

The paths, links, and holes of the maze all contribute to the creation of meaning. Because the maze is a visual pattern, and the eye follows certain lines more easily than others, certain paths offer themselves more readily visually than others. The eye moving at right angles across a series of waves, as a car bouncing over the ruts in a road wash-boarded by erosion, gives a different feeling than the eye following the lines of the waves themselves. Reading paths are suggested or discouraged by the way in which the eye is directed and moves, as the eye moves across and around a painting. Hypertextual construction of meaning in a visual language, the joining of conceptual units in a visual pattern, opens the possibility of exploiting the whole realm of meaning, physiological response, and aesthetic convention belonging to the plastic arts.

LiveGlide is the three-dimensional, sculptural form of Glide writing. The dimensional leap is accomplished computationally by moving the two-dimensional vector forms of the glyphs through three-space on six dimensions of movement: x, y and z axes steering the form, and x, y, and z axes of camera movement. The complexity of forms generated by six dimensions of movement produce an intricacy of movement and form that suggests a fourth (spatial) dimensional perspective. The perspective is changed from the webs of two-dimensional Glide mazes, to the evolution and movement of a single, ongoing strand of Glide, transforming in meaning, by virtue of the transformations of the glyph, and the transformations of visual attributes along its path. A single glyph, by virtue of its transformability, becomes potentially all glyphs; one meaning becomes in potential all meanings.

[Appendix II, Items 1—4.]

[Appendix I, Figure 63.]

Two-dimensional shapes extend into serpentine, three-dimensional forms.

The single spiraling form can cross it/self, re-entering its form. Using camera movement, one can tunnel through a form. Through transformations in three dimensions, the moving glyph leaves static forms in its wake, layering form on form, transparently or opaquely, slowly or quickly dissolving. With LiveGlide one can send pulses of color through the form, at varying speeds, creating a seventh dimension of movement. Finally, three lights can be moved over the forms, each at varying angles and speeds, bringing the dimensions of movement to ten.

[Appendix I, Figure 64]

LiveGlide, colorful, glowing, elaborate or austere, is the illumination of the manuscript of Glide. LiveGlide does not attempt to “represent” the visionary experience; rather, it is envisioned differently in different SoCs.⁶⁷ There is a space-filling mesh that often appears in psychedelic states, composed of undulating extremely fine strands of rainbow light which behave like the “wireframe” for more complex and solid visions when perceptually manipulated in ASC.

there are changes that are occurring in the perceptions and in the frame of mind equilibrium in which one needs to be to perceive the amazing show of tiny filamental and smoky vibrating oscillating very very fast that you could only see if shot at 60 frames per second hands still flowing and glowing with energy white vortex speeding off so fast streams of energy from the fingers go look some more the universe is being whirled into existence at an impossibly high frequency (the quantum scale) dervishes sand devils of primary vortexual energy like seeing everything a very very very fine wireframe getting more and more solid as the projection is accepted as "the real" (AD_07.05.06)

LiveGlide can be visualized as a wireframe, and shifted into a more opaque form using the software’s ability to make the forms from different primitives, but this does not “represent” the former state. What LiveGlide reveals to me, writing in an ASC, is not the visions of the eye, or the mind’s eye, but the movement of the

⁶⁷ Representation, in any exact sense, of the perceptions of the visionary state in three-dimensional perception is not possible, in my view, not simply due to an “ineffability factor,” but because the perceptions are “mechanically” not possible to reproduce. Two examples: the extremely high resolution of sight is qualitatively different than the lower resolution of sight at baseline, and the dimensionality is greater than our customary three.

mind, what ever aspects of “conscious network” are online in the act of reading / writing / reading. LiveGlide expresses meanings to me; I do not consciously “represent” forms recognizable at baseline.

Writing with LiveGlide, using the performance software, glyphs become portals, gates of change; I can move through a LiveGlide tunnel *andante*, or at warp speed; I am tunneling to another dimension.

multiple worlds performing an interdimensional docking operation—lining up portals and sending a tube across glyph-tube the portal (form length 1) extends the tube the tube transforms—creates a wave of energy—down its length when the glyphs transform how meaning travels three-dimensionally a three dimensional world has a two-dimensional writing convention. a four-dimensional world has a three-dimensional writing convention. LiveGlide. (AD_07.01.19)

LiveGlide carves light that is cuts through the underlying qi “layer” (AD_07.03.12)

[Appendix I, Figure 65.]

LiveGlide speaks in spiral waves, a primal form on which the universe, including biological forms, is constructed.

you must re-read your world in Glide from a Glide viewpoint, multiminding you must re-write your world in Glide all signals are Glide forms, spiral waves (AD_06.02.20)

LiveGlide celebrates the spiral wave, the endless movements of the rainbow serpent, reproducing it/self by unzipping its mirror image, then reflecting it/self anew. It splits, it rejoins. Every link unlinks, and then reforms, reflectively. It's all done with mirrors. (AD_10.04.01 MDMA)

LiveGlide coils and uncoils, folds and unfolds, extends and contracts, swells and shrinks in its passage, a series of linguistic symbols changing in sequence over an endless line, an abstraction of the language of living light which is our DNA.

LiveGlide expresses the gestures of the Rainbow Serpent, an exercise in transdimensionality. The relation of Glide and LiveGlide to DNA occurs over and over in the ADs.

so much depends upon...finding the script of the transmission the transmission of the transdimensional script illuminate the manuscript so much depends upon this portal, this transdimensional doorway—for the unfolding the scriptase, transcriptase total absence of all formal categories doesn't provide alibi for presence at the transformation stay naked in the presence of the alien, bereft of symbologies cosmic SOS process being written on the DNA when transmission active i. (AD_05-03-19)

Tai Chi masters describe the movements of the body as founded on the half circle, tracing spiral waves. In the Qi Gong form “serving tea,” the arms trace an inside-out turning spiral wave.⁶⁸ This movement is sometimes called the Timeless BaGua Zhang exercise, based on the octagonal arrangement of the eight trigrams of the I Ching. The I Ching is fundamental to the logic of Glide, described in Section 7.9.7 below. The movement of *qi* in the body, and the forms of Tai Chi and Qi Gong are a field of meaning for LiveGlide.

fingers move in the snake-wave the glide sign the sidewinder the wave in metaform now expressed through a highly organized articulated spine and body but still the wave form the smooth interpolation of levels of intensity in 3-space the wave is helical and can store energy—twing—can use the stored energy of its form to penetrate—the screw locomotion is a great mystery but all based on the wave-spiral

the humorous beauty of the skeleton dancing—the spring of the spine the muscles that move the bones the bones that give direction and form to the muscles all depend on the wave-spiral both in their macro-form and in the way they deploy energy rising falling on exact curves the hand-gesture snake-wave what a great lesson about how form is translated into greater and greater levels of organization yet still metaphorically and structurally maintains the same form the wave-spiral (AD_05.11.23)

6.9.7 Logic

Each phase of consciousness is characterized by its own range of entrainment, as well as its own “logics,” which direct attention and assemble “meanings” selectively. . . In a sense, symbols order experience. They attract and focus our attention, modulate the interplay between events of the moment and events of the past, and canalize our experience into accord with that of our fellows (Laughlin 1990).

The logic of Aristotle, Leibniz, and Descartes, the logic of Western rationality, is binary at the core. There is A, there is not-A, and there is nothing in-between: the Law of the Excluded Middle. Basarab Nicolescu, from the viewpoint of his model

⁶⁸ This form can be viewed here:
<http://www.youtube.com/watch?v=vObofgBIKuk&feature=related>

of transdisciplinarity, (c.f. Section 3.2) and Francisco Varela, presenting a calculus of self-reference for understanding biological forms, (c.f. Section 6.4) each propose a three-valued logic, a Law of the Included Middle. The lived experience of the psychedelic sphere where opposites can co-exist without contradiction and paradox finds a cognitive home, and can be expressed in terms of a ternary logic.

The idea of a ternary logic is expressed in the basic construction of the Glide glyphs from three strokes.



Self-reference is at the heart of living, autopoietic, self-producing, self-maintaining systems. Self-reference is at the heart of consciousness; when consciousness strives to understand it/self, to observe it/self, the paradoxes that plague the rationalist view (how can I be both observer and observed at the same time) stubbornly present themselves. Francisco Varela frames the problem this way:

Whether in dealing with the organization of systems or with the structure of language, hardships with self-referential situations have the same root: the distinction between actor or operand, and that which is acted or operated upon, collapses. There seems to be an irreducible duality between the act of expression and the content to which this act addresses itself; self-referential occurrences blend these two immiscible components of our cognitive behavior and engender a dual nature which, apparently, succeeds in escaping this universal behavior and thus seems peculiar in our knowledge (Varela 1974).

Varela represents the third term—the both/and—as an asterisk in *Principles of Biological Autonomy*: (Varela 1979)

* = observer/observed

In “A Calculus for Self-Reference,” (Varela 1974) the article in which the underlying logic of autopoiesis is developed (extrapolated from George Spencer-Brown’s *Laws of Form*), Varela uses the formalism



to stand for *re-entry into the form*.

I have shown that this third value can be seen at a level deeper than logic, in the calculus of indications, where the form of self-reference is taken as a third value in itself, and in fact confused with time as a necessary component for its contemplation. In the extended calculus, self-reference, time, and re-entry are seen as aspects of the same third value arising autonomously in the form of distinction (Varela 1974).

The relation of the formal sign for re-entry into the form to the mathematical object *i* is explained by Varela:

A similar case, at the numerical level is to be seen in the construction of the complex number, starting from the antinomic form of $x^2 = -1$, not solvable in the real domain because it needs a number which is both positive and negative. This antinomy is solved by admitting this behavior within a larger arithmetic containing a new value $i = \sqrt{-1}$, and thus extending the real domain to the complex domain. In analogy, we have presented a similar construction at the Boolean level. By allowing an antinomic form (from the point of view of logic) we have constructed a new larger domain akin to the complex plane, where new forms can be lodged, including those of the preceding primary domain found to be in conflict by the introduction of re-entering expressions. Again, rather than avoid the antinomy, by confronting it, a new domain emerges (Varela 1974).

Nicolescu, following Stéphane Lupasco's three-valued logic, represents the third term as T:

A, Not-A, and T, (which is at the same time A and non-A) (Nicolescu 2002)

In Glide, the third term is represented as the wave stroke:



A concrescence of concepts resides in the wave sign, similar to McKenna's totality symbol concrescence.

[Appendix I, Figure 44.]

[Appendix I, Figure 66.]

In the Glide symbolic system, the correlative thinking that occurs in ASC centers on the wave sign. The connection with the I Ching springs from the relation of the Tai Chi symbol to the binary system of the I Ching.

[Appendix I, Figure 67.]

The I Ching, or Book of Changes, expresses the principle of dynamic change in the universe and in the affairs of humankind. The Tai Chi sign at rest, according to Master Alfred Huang, is the 0 of the pre-creation void. When the Tai Chi goes into motion, two primary energies are created, generating the world through their interactions (Huang 2000).

The wave sign, implicit in the Tai Chi symbol is made explicit in the Glide ternary system. The binary system, illustrated above, has also been represented as a fractal by Shao Yong.

[Appendix I, Figure 29.]

6.9.8 Uses

In *The Maze Game*, the Glide language infuses the culture, and has many uses. For the original Glides, the language was first gestural and used to navigate and communicate secretly across the spaces of the lily pond on which they harvested the pollen of the hallucinogenic blue lily.

The mazes used in gameplay were constructed of Glide glyphs in various architectures. There are four styles of maze on which the game is played, and four different classes of Death Dancers, based on four mind-sets, roughly equivalent to the Jungian four functions. Bods favor the gut-mind, the body's wisdom. Their mazes are extruded glyphs at different heights; they treat them as an obstacle course. Swash's live in the sea-mind, the source of emotion, creativity, song, and dance. They perform their way through a maze of extruded glyphs, but with curved, ramp-like connections between the different heights of glyphs. The

Chromes, cyborgs who prefer the island mind, seat of rationality, move through the maze in springing leaps, from closed space to closed space. Their mazes are steep and deep, with great variance in the height of the glyphs. Glides, living in the lily-mind, a transpersonal state, move silently on a perfectly flat maze, floating, gliding, in a contemplative state.

The glyphs are used for poetry, as an inspiration and notation for music, and in the architecture of buildings and patterns of city streets.

Outside of the story world, per se, I began to use Glide as a method of navigating psychedelic mindstates. Its formal structure in mazes would transmute in altered states to a fine mesh, the underlying structure of visionary formation. "Holding" these structures with the mind—a function of intention and attention—and then "twisting" them creates a dimensional leap from the perception of the physical universe into a visionary landscape. They have practical use as navigational tools and as an interdimensional transport system. They also function as forms that can contain and channel the powerful energy phenomena that can be experienced in ASC, creating a circuit-like structure along which energy can flow, modulate, and transduce, a framework to ride the spiral waves of the Rainbow Serpent.

The new symbolic structure can carry much more energy, across more dimensions. This is a very simple principle, can even be explained, but moving to the experiences possible—the changes in consciousness—is quite another matter (AD_07.03.19)

Writing with LiveGlide in an ASC produces new understandings of Glide. In an ASC, writing with LiveGlide is a collaboration with the Other. The Other speaks through the gestures of the language projected on the dome or screen. Writing with LiveGlide, done with this intention, becomes a spiritual technology. Getting in sync with the Other, allowing a condition of pure flow to move the forms, and entering a state of 'ecstatic signification' where reading and writing, self and Other,

are one, is to use LiveGlide as a symbolic driver, in Winkelman's sense, to access an ecstatic mind-state, a means of navigating the psychedelic landscape. Such navigation involves techniques of managing the self, Self, selves, and Other, and *others* manifesting in the ASC. In Chapter 4, "ego dissolution," is discussed; with practice this is less of an earthshaking event and more a change of costume, or a nakedness, *a creature void of form*, yet still performing, reading, writing, reading, the faithful scribe. In the 2C-B state especially, reading and writing with LiveGlide can become a meditation, in the sense of a close observation, *crystal vision*, of the movements of the mind—thoughts, feelings, physical sensations—in relation to the Other, with whom I am playing.

Much practice, over a period of years, honed this ability, and these understandings. LiveGlide is always performative, but the performance is most meaningful without audience, other than the connection with the Other. *Who reads? Who writes? Who performs, and who observes?* It is all one motion. LiveGlide is an artistic practice; I perform, preferably in domed environments.

[Appendix I, Figure 69.]

In ASC, the dome becomes the dome of consciousness, in which the processes of perception, reflection, and projection are present in the material metaphor, and in the processes of the mind. The geometry of the hemisphere is created by the rotation of the half-circle, the fundamental Glide stroke. In the mixed reality of psychoactive vision, where the hyperdimensional realities are sensorially interwoven with the perceptions of the physical environment, I am aware of projection from multiple projectors: my mind, now open to its depths, and seemingly to Mind-at-Large, and the images from the hemispheric projector, but of course, those have become one process. The machinery of reality projection is laid bare as the Other moves the mind and the mind moves forms, flowing through the

fingertips, transformed in the computer's languages, and projected onto the Dome's surface, reflected back, and turned into perception round again, as the seamless and inseparable nature of the process is played out in timeless flow.

LiveGlide is ephemeral art—images arise, move on, fading out, overwritten, dissolved, transformed. The Rainbow Serpent changes color, movement, shape, but always the Serpent form is close to hand. This transience of the image, however eloquent, and the fact that LiveGlide has no built in software to record its images, means that no matter how much I may become enamored of a particular form, a color space, a movement, a teaching, I know I will never be able to return to that exact combination of LiveGlide variables, no matter how accomplished I become at creating certain images and controlling their movements and qualities. LiveGlide loves Heraclitus: *panta rei*. You can't go home again. Let go. Move on. Create anew. Always improvisational, LiveGlide teaches me non-attachment.

LiveGlide has over a hundred parameters, permitting an almost endless combination of forms and visual qualities to be displayed. These are 'played' from a large TASCAM midi controller.⁶⁹

[Appendix I, Figure 68.]

[Appendix II, Item 10]

liveglide tunnels are vortexes that lead to other dimensions just so, Glide as a symbolic system of more than normal dimensions, leads though/feeling/mindbody into extra-dimensional experience actual contact becomes possible this is holding the tunnel open this is the gate of change doorway of transformation this is the doctrine of the secret lover

letting the vortex form, first the ball of energy held in the rounded hands then the blue shift, and the coalescing into form then the hyperdimensional vortex held open by a quality of attention, focus, and envisionment until through the tunnel the extra dimensions are seen with the eyes open the tunnel boring through three dimensional space I did it practice then this is the doctrine of the secret lover (AD_06.06.22)

⁶⁹ The TASCAM has 25 sliders, 25 pots (turnable knobs), and 72 buttons; it is the equivalent of playing a visual pipe organ in terms of complexity and possible combinations of effects. A degree of facility was necessary before trying this activity in significantly altered states.

In the future, I would like to use a “mind-cap” as my midi controller, using my own brainwaves, mapped flexibly to LiveGlide parameters of movement and visual characteristics, to control the LiveGlide forms. I believe this could function as a biofeedback device for learning to enter or stabilize various mindstates, and to track, in a visualization, the movements of the mind, in various ASC.

[Appendix I, Figure 70.]

6.9.9 Ethical Dimensions of Glide

The theme of interconnectedness found in the work of each of the xenolinguists is echoed in the forms of the Glide mazes, in which the links, our endless forms of connection (or structural couplings) have meaning in addition to the nodes in the net, the glyphs as individual loci of meaning. The evolutionary imperative—that a shift in mind or consciousness is necessary to begin to contemplate our condition as individual and as a species, and to reckon with our disconnected behavior towards ourselves, our conspecifics, and the parts of the biosphere we are destroying in our efforts to survive—grows in strength from the repeated conditions of mind shift experienced in psychedelic states. When sentience, intelligence, and consciousness are experienced permeating the biosphere, and the universe as a whole, my perception of the world I find myself in shifts in its deepest character from being a disconnected group of objects in a neutral container of space to a shimmering web of subjectivities into which I am miraculously woven, within I am nourished, and toward which I have a responsibility. How could it be otherwise in this connectedness? The visionary experience as metanoia, and the practices that evolve from it, strengthen this imperative in my experience. This assertion runs counter to the portrait of the psychedelic user as irresponsible, crazy, dangerous, destructive to self and others, or a non-productive slacker,

stereotyping which supports the scheduling of drugs and the punishment of those who wish to change their minds with their assistance.

The myth of Glide involves the effort to re-unite the differing wisdom of intellect, body, heart, spirit, to bring the warring parties together in council (the connectivity of minds) and work things out. As such, it serves as a framework and a motivation in my own life for meaningful, productive change.

7 Conclusions

This thesis examines the phenomena and illuminates the process of symbolic formation in the psychedelic sphere. Psychedelics provide instrumentation (extended perception and observation) that opens a new knowledge space in which to ask the questions posed in the introduction: “What can these linguistic experiences tell us about how the psychedelic sphere can be approached, navigated, interpreted, and communicated within its own domain, and communicated about between states of consciousness? Further, what light can be shed on the differences in perception and reality between the default settings in which daily life is experienced and science practiced, and the psychedelic realms, by an examination of these language phenomena?”

Psychedelics can open a space outside the veil of natural language but not necessarily beyond cognition or communication. In the specific examples examined (Terence and Dennis McKenna, Allyson Grey, Jason Tucker, and Diana Slattery) psychedelic experience catalyzed symbolic systems that, developed through practice, became a means of communicating with as well as communicating about the psychedelic sphere.

A summary of findings follows.

7.1 The Psychedelic Field and Its Literature

Chapter 2 traces the split condition of the psychedelic field; not only are psychedelics studied from the viewpoint of multiple disciplines, from the physical sciences, philosophy, the social sciences, to media theory, painting, interactive art, and literature, but the field itself is divided between above- and underground research and publishing. The fault line on which this division aligns is the criminalization of most psychedelics, creating a chasm of unspeakabilities between legitimate and illegitimate research. This has led to

the ignoring in academia of the extensive works of the psychonautic underground, such as those of Timothy Leary, John Lilly, and Terence McKenna. While they are treated in cultural studies of the 60s and 70s, little attention has been given to the substance of their research—the records of their psychonautic experiences, and the explanatory theories they formed—as a means of understanding aspects of altered states of consciousness from the experiential side. The literature of the field is similarly divided, first along disciplinary lines—pharmacological, biochemical, anthropological, psychiatric—and secondly across the fault line of above- and underground, where the literature of psychonautic self-exploration is considered a pop cultural genre, “trip-lit” or travelers’ tales, and not examined critically for its actual reportage on non-ordinary states of consciousness—and the systems of ideas that arise within them—by the scientific community. This lack of attention is compounded by the epistemological gap between subjective and objective methods.

7.2 Methods

A technoetic practice—the combination of psychonautics (the ADs) and interactive art (the Glide software) were the means by which the research questions have been explored. Treating psychonautics as a knowledge practice within the technoetic stance of studying consciousness “through digital, telematic, chemical or spiritual means, embracing both interactive and psychoactive technologies,” breaks new ground methodologically in the field of psychedelic studies. The results of the first-person research—the production of the ADs, a record approaching 300,000 words; the Glide software, used in conjunction with altered states of consciousness to explore the psychedelic landscape; and a video record of many of these “conversations with the Other” in LiveGlide—are the material from which the models of reality and perception

in Chapter 4 are constructed, and the symbolic system, *Glide*, is explored, over a period of ten years. This data is compared with and contextualized by the reports and works of other xenolinguists. This comparison of texts (including images), focused on the topic of linguistic phenomena and symbolic systems, identifies common themes and features of the psychedelic landscape, and certain commonalities of ideas (gathered in the table of themes in Appendix VIII) that provide not only an intersubjective validation that these experiences, as bizarre as they may appear from a baseline (and especially an inexperienced) viewpoint, do occur with some regularity. Thus, in Douglas Turnbull's model of map-making as the negotiated assemblage of local knowledges, certain landmarks in the psychedelic landscape are picked out, as it were, from different angles (the individual viewpoints) but recognizable as a part of a shared territory. This method of comparing the reports of experienced psychonauts uses the techniques of comparative literature and mythology (compare and contrast, and close reading) to identify these landmarks. A prominent example of such a landmark is the theme of hyper-connectivity.

7.3 The Psychedelic Landscape

The questions that inevitably arise in psychonautic practice, and in the critique of such reports by those who read/hear/study them, of the ontological status—the reality of—the experiences described. Chapter 4, using the data from my own technoetic practice and that of other psychonauts such as Leary, Lilly, and McKenna, as well as extensive reading of individual trip reports from the Vaults of Erowid, finds, in the discussion of “the reality question” the usefulness of a model of multiple levels of reality (or discrete states of consciousness) in describing psychonautic experience. As a monophasic society, in Laughlin's terms, we are firmly rooted in a baseline reality, from which such departures in perception (and the differing realities that result) are categorized

as psychopathological, unreliable, irrelevant, or all of the above. Our cultural episteme for knowledge acquisition is dominated by the scientific paradigm, which in turn relies on the presumption of a single reality; a cornerstone of the claim to objective observation and truth, and necessary to the empirical approach to knowledge which requires repeatable experiments. This monophasic enculturation differs sharply from polyphasic cultures—such as those of the ayahuasca churches, and those groups with indigenous shamanic practices in South America—in their view of the co-existence of multiple realities, variously accessed, blended, and integrated with everyday consciousness. In the case of an experienced practitioner of altered states, across the spectrum of shamanic and religious practices, “everyday” consciousness can become a blend of multiple levels of reality, navigated by the practitioner for practical means: mental and physical healing; solution of daily life dilemmas; the prediction of future events; and the direct acquisition of knowledge of states of consciousness through disciplined experimentation with plant teachers. Contemporary Western psychonauts engage in similar quests, without the benefit of a cultural framework that acknowledges the value, and efficacy (across dimensions of healing, problem solving, spirituality, and cultural creativity) of such practices. The model of multiple realities is drawn from both anthropological studies of polyphasic cultures, and from the models in Western science that were being built by psychedelic researchers such as Charles Tart, Ralph Metzner, Timothy Leary, John Lilly, and Roland Fischer in the pre-scheduling days of LSD and psilocybin research. Also important is Basarab Nicolescu’s model of transdisciplinary research as a way to incorporate and integrate multiple levels of reality in a single intellectual framework. Adopting the stance of maintaining a parity of realities, i.e., the attempt to maintain a viewpoint that encompasses multiple states of consciousness and the widely differing realities they present without privileging one over another is

found to be a necessary move to hold in abeyance the question “Well, but was that really real?” which reveals both the questioner’s position on reality, and asks the queried to make a value-driven choice of realities. *In practice*, the psychonaut is both querent and queried; later, in the reportage of these experiences, the realm of intersubjective comparison of realities is entered, with its own questionings. Developing such a stance—*in practice*—is an evolutionary process, learning to navigate among realities while considering each reality, including baseline reality, from an *as if* viewpoint that can incorporate both the immersion within a reality, and the ability to take one step back into a critical, comparative stance.

The concept of hallucination is critiqued as an artifact of a monophasic stance toward reality. A model of extended perception is suggested as more fruitful in the practice of psychonautics. A wide range of perceptions are found in various ASC, chemically or otherwise instigated. Novel perceptions and observations open the door to new knowledge and establish, when the novelty is extensive, the designation of multiple realities. Synaesthetic perceptions are examined, as well as specific examples of categories of novel perceptions encountered in my psychonautic practice: crystal vision, high resolution, filamental structures, hyperconnectivity, and hyperconductivity are examined in depth, woven together with subjective reports from multiple psychonauts describing similar phenomena. These categories of perception are part of the forming of the landscape in which the linguistic phenomena are discovered and explored. The perceptions involving shifted or increased dimensionality are explored, as the adjectives “multidimensional,” and “hyperdimensional” occur across a wide variety of psychonautic reports of the psychedelic landscape. Fractal dimensionality and transcalar perception is found to be a frequent feature reported, and influences the theoretical frameworks of some psychonautic

thinking, especially that of Terence McKenna. Fractal perceptions lead to views of both space and time, constituents of reality-construction, as fractal.

These new forms of psychedelically inspired language lean toward the visual, as do many of the forms of new media. They make dimensional leaps and synaesthetic connections. For McKenna, Slattery, and Tucker, these forms, temporal and spatial, are associated with waves and transcalar fractal formations connected to nature's fundamental forms.

7.4 Neurophenomenology

The neurophenomenological perspectives outlined in Chapter 5 connect scientific theories of brain structure and function, cognition, and language to the experiential side of ASC, and contextualize these phenomena physiologically. It is chemistry that creates the perturbations of the brain that are experienced as ASC by the individual taking a psychedelic substance. This is not to downplay the effects of set and setting on the experience, but to emphasize the change in brain chemistry brought about by the specific material and its dosage as necessary (though not sufficient) conditions for understanding the experience. These correlations can be strong, when generally stated, as in Michael Winkelman's central idea of psychedelics as "psychointegrators," opening the three parts of the triune brain to one another. One can link this description of neurotransmitter activity to the experience of increased access to parts of conscious network normally out of the view of baseline consciousness. This increased access is found to be reflected in experiences of unity, of the enhanced connectivity of ideas, and of the re-union of reason and emotion.

Charles Laughlin, et. al., in their detailed treatment of the symbol and its primacy in cognition and perception provides a vocabulary for examining the varied forms of symbolizing represented by the systems and practices

developed by the xenolinguists. The varied use by the xenolinguists of symbolic drivers to guide the ASC is detailed in Chapter 6, "Xenolinguistics."

Stephen Farmer's work on correlative systems, linking the structure of cerebral columns to the structure of correlative thinking, which he claims is characteristic of psychedelic ASC, provides a correlative explanation of correlative thinking. This convergence of concepts, the hallmark of correlative thinking, and the form of cognition that urges the connections, can be seen especially in the convergence of symbols charted in McKenna's and Slattery's symbolic systems, illustrated in Figures 44 and 66.

Linguistic phenomena from the psychedelic sphere, in the light of this research, also form a context for themselves, as reports accumulate, and comparisons and correlations, system to system, and practice to practice, are made, providing intersubjective validation of the experiences. These correspondences are summarized in Appendix VIII, "The Xenolinguists: Themes Associated with Four Symbolic Systems of Psychedelic Origin."

7.4.1 Conscious network

Laughlin's notion of "conscious network" includes what is present to consciousness in the moment plus the entirety of what is unconscious. We can see from Winkelman's concept of psychointegration that, in broad terms, more aspects of consciousness are present with psychedelics, through their action on the serotonergic system, whose network spans the reptilian (behavioral controls), paleo-mammalian (the limbic system, regulating emotion), and the "chattering monkey brain" or frontal cortex (thinking, problem solving, language) bringing them "online" together. The experiences of heightened connectivity, or hyperconnectivity, within one's own cognitive processes, or in relation to the broad experience of connectivity between self and Other, and self and nature, which Doyle calls the ecodelic insight certainly map to this

description. In short, more of conscious network becomes visible in ASC. Thomas Ray's maps of the receptor binding profiles of 35 drugs (including those listed in the ADs) show a different aspect of heightened connectivity across the neurotransmitter systems. We can see, for instance, that DMT connects with more receptors than any other drug in the study, and note that the most extravagantly alien experiences (McKenna's reports of linguistic objects and the machine elves, for instance) cluster around high-dose psilocybin DMT. Patterns of connectivity in the receptorome are reflected in experience; different neural connections with psychedelics produce different, sometimes radically different, experiences in ASC.

7.4.2 The Sensorium

The sensorium, in Laughlin's definition, is the site of all phenomenal experience. Clearly, in psychedelic experience, the sensorium extends beyond baseline perceptions into novel arrays: synaesthesia, heightened—or novel—colors and sounds; an intensified sense of meaningfulness (or meaninglessness); increased dimensionality; and a panoply of potential visionary (presentational, in Hunt's terminology) states.

7.4.3 Dots and Waves

Laughlin describes the experience of "dots" in contemplation, the phenomenon that fills the sensorium as perception (in any sensory modality) devolves into its primal units upon close inspection in stillness. These primal dots of experience are reminiscent of Allyson Grey's description of dots from her principles: "Life is a system made up of small cells or light/energy packets."

The perception of flow dynamics, and its spiraling waves, which Harry Hunt takes as fundamental to living forms in their liquid environments, and essential to the cross-modal synaesthesia he posits as the basis of presentational cognition, is a perception central to ASC in Slattery's experience, reflected in the

forms of drawings and in the LiveGlide animations. Wavy motion forms the pathways of Tucker's Actual Contact drawing mode. The complex apprehension of time as a fractal wave is at the heart of McKenna's theory of time. It should be remembered, though, that both descriptions, from the psychological explanations and the experiential reports are what Varela would call "symbolic" as opposed to "operational."

7.4.4 The Symbol

The evolution of symbolic forms and the evolution of consciousness, if one is speaking, not at the genetic and structural level of evolution of brain structures, but at the level of the individual, can be closely linked, in Laughlin's system. Symbolic forms build, from their neurognostic givens in the infant, through enculturation, into a system of models which grow and can change over time through semiosis (learning). Consciousness evolves epigenetically at a rapid pace through culture's shifting symbolic forms. Symbolic forms, from the repeated patterning of our first sensations through learning natural language, and beyond, are the building blocks from which we construct build the circuits and models in the brain that build our cognized environment. With the radically shifted perception and cognition of the psychedelic experience, to step outside station normal—our customary baseline settings for "reality," is to see just how plastic conscious network can be. The sensorium, the space of experience, is not set in stone; it is malleable, and even composable in Varela's sense.

7.4.5 The Universal Symbol

Laughlin's description of the Universal Symbol, or archetype, a phenomenon which arises in deep states of contemplation, correspond as well to deep states of psychedelic absorption. McKenna's cluster of totality symbols, including the Philosopher's Stone, an alchemical archetype, the Some-thing that can manifest

as Any-thing, is a clear example. These numinous symbols, encountered experientially, whether in meditation or in psychonautics, can have a life-transforming effect. The Rainbow Serpent, as symbol, metaphor, physical experience, visionary creature, and subject of drawing, with paint on paper, or with light on a screen, has woven itself through Slattery's work with Glide, presenting it/self as the primary flow of energy and life, in Hunt's characterization. The serpentine movement of the Rainbow Serpent sheds the forms of the Glide glyphs in its passage. The numinous Universal Symbol—Philosopher's Stone, Rainbow Serpent, or sacred script—persuades, engages, obsesses its recipient. This tremendum, the download of knowledge that seems alive, with its own agenda, presents the paradoxical aspect of *the unspeakable that must be spoken*. The effort is made, and the effort overcomes, in its urgency, the social and academic unspeakabilities touched on in the introduction.

7.4.6 The Matter of Correlation

Arguing for correlations between neurophysiology and the phenomenology of ASC, the approach of Laughlin and Winkelman, which, though they will never attain the mathematical certainties of statistical correlations, is a beginning to understanding these anomalous (from a baseline perspective) linguistic phenomena from the psychedelic sphere. However, there is a deeper correlation to be made, a gap yet to be crossed, beyond the reach of this thesis. It can be illustrated in another domain by two parallel systems of medicine with two different models: Western science-based medicine (including psychiatry) as practiced, and the psychedelic spirit-based medicine practices of indigenous and mestizo Amazonians. These models, each of which has the broad intention of curing illnesses, are different in critical ways from each other in their conception of the nature and etiology of illness, the training of practitioners, the actual medicines used and the practitioners relationship to those medicines, the

place of the practitioner in his or her society, the occupational hazards of the profession, and the economic models of practice. Fundamental assumptions about the nature of the self and its relations to others, including non-human or immaterial others, or the subjectivity inherent in the plants themselves, differentiate Amazonian medicine sharply and in contradictory ways from Western medicine. The same can be said in correlating the ideas and basic assumptions about knowledge found in scientific practices such as those of the neurophenomenologists referenced in this study with the ideas and basic assumptions of the psychonauts whose work is examined here under the rubric of xenolinguistics.

Nicolescu's ternary logic and concept of levels of reality provides a philosophical basis that can reconcile worlds that operate by different laws. Varela's calculus of self-reference, and the ternary logic it delineates similarly provide a footing for certain psychedelic experiences, especially those of the reconciliation of opposites, and the paradoxes of self-reference that are a by-product of binary logic. But these ternary logics, which open new forms of cognition, are the minority viewpoint—in mathematics, biology, or the philosophy of mind and the neuroscience that are the prevailing discourses of consciousness studies. Psychedelic experience, as it is made explicit by studies such as this, will continue to present experiences that exceed the limits of the scientific episteme, and the forms of rationality and logic in which science is grounded. There is no compartment in the discipline of linguistics for the chattering machine elves of language, just as there is no scientific method that can comfortably admit knowledge gained from dialogue with "the voice of the Logos" or other forms of the Other in the psychedelic sphere. Each form of knowledge struggles for validation—in its own realm, on its own terms. Psychedelic knowledge, gained from long-term study and practice, organized, contextualized, and made public, opens these realms to intersubjective

validation from those whose experiences are recognized in the descriptions, and invites further experimentation and exploration with these instruments for studying consciousness “from the inside.” It is hoped that this study contributes to a dialogue across epistemes.

7.5 Xenolinguistics

The Xenolinguists have touched on zones of similar experience in the psychedelic sphere, circling around notions of new linguistic or symbolic forms. In this sense, they contextualize each other, creating their own landscape of interwoven experience and interpretation, independently downloaded and evolved, later cross-fertilized, particularly through the ideas of Terence McKenna in his books and lectures. The areas of findings in xenolinguistics are summarized below.

7.5.1 Contact With The Other

Linguistic phenomena in the psychedelic sphere are inseparable from the experience of contact with the Other. In McKenna’s and Slattery’s experience, the Other is in some manifestations co-terminous with the linguistic objects. In Terence McKenna’s DMT world, the self-transforming machine elves create objects of densely packed meaning out of themselves; the objects are alive, they are themselves *selves*, and repeat the process. Slattery’s Glide glyphs explain themselves as a form of sentient language, as the Glides themselves, a manifestation of the multitudinous alien munchkins of the tryptamine trance. The Glides at times identify themselves as our future selves, when we have been transformed into language, a theme echoed by Jason Tucker, in some manner difficult to imagine outside the ASC, for the state is one of both/and, a *coniunctio oppositorum*, of life and language. Tucker’s entities—multiple and playful—manifest themselves in symbolic form, both guiding the hand in drawing, and seeing themselves emerge through the line, as if through an

interdimensional portal connecting two worlds. Allyson Grey participates in a similar process through “automatic writing.” The voice of the Logos, for McKenna, was the transduction of the condensed information download into a stream of ordinary language, a voice he could converse with over the years, developing the Timewave Zero system. Similarly, Slattery’s dialogue with the teaching voice of the Other, with whom the various software was designed, and the workings of the Glide symbolic system were unpacked. These communicative experiences are suffused at times with feeling of closeness, intimacy, trust—instances, as McKenna put it, of “alien love” or “Luv.”

These experiences of the xenolinguists investigated occurred repetitively, over a period of years, with a long developmental history. However else one characterizes these experiences, they are conversations between worlds, with the symbolic systems functioning as both medium and message—technology transfer of material with significance for the receiver, and the mode of the transmission as well. The psychonaut is one who steers—navigates—through the invisible landscape of the psychedelic experience, with the help, in these instances, of the Other, using the languages developed, as navigational aids, to organize the experience of the psychedelic landscape, and to integrate these experiences with baseline reality in novel ways.

These accounts of the invisible landscape, with their recognizable landmarks and indigenous populations, begin to assemble the knowledge to make maps, however tentative, for further exploration and communication.

7.5.1.1 *Psychedelic Origin of Language*

McKenna argues that our symbolizing activities as a species, *Homo sapiens sapiens* (we-who-know), were catalyzed by ingestion of mind-manifesting, tremendous-revealing, plants and fungi, discovered in our omnivorous foraging and experimentation in the search for food. The psychonautic xenolinguists of the present have downloaded and developed new symbolic forms and ideas

about language itself in conjunction with these substances. The connection of psychedelic use with the development of computer graphics, virtual reality, programming languages, and communication technologies is circumstantial, suggestive, and only superficially investigated at present.

7.5.1.2 Glossolalia

Aural glossolalia in the form of “meaningless” syllables that are linguistic in feel, as Terence McKenna experienced, were connected with the synaesthetic appearance of linguistic objects in the DMT spaces. Gestural glossolalia, or “automatic writing,” is experienced, in varying forms, by Slattery, Tucker, and Grey. In religious contexts, such as charismatic or pentacostal church services, glossolalia is understood as contact with the Other, in the form of the Holy Spirit, expressed through the human person in trance. Glossolalias in general are forms of contact with the Other. They seem to form a step between full linguistic systems—like natural languages or written symbol systems (Laughlin’s formal sign systems), and a primal urge toward expression in gesture and sound that, as it is experienced, appears in ASC to be instigated by the Other, a bursting forth of communication from the invisible landscape. Language, including song and chant, can synaesthetically invoke images as the primary end-product of expression. Shipibo designs are a singing and a visual image wrapped in one. Spontaneous, patterned sound or movement, the sense of being moved by something or someone other than self, describes a zone of energy phenomena experienced in ASC . The movements of the rainbow serpent in the body, directing the gestural flow of LiveGlide, the forceful emission of sound experienced by Dennis McKenna as frighteningly energetic, that stiffened his body, the emergence of a secret sacred writing for Grey are actions characterized by a letting go of, or a sharing of motor control with an Other.

7.5.1.3 Translinguistic Matter, DNA, and the Idea of a Living Language

These three ideas converge in both Slattery's and the McKenna's investigations.

What the McKennas called translinguistic matter, and Stephan Beyer, in the context of shamanic studies, calls the shaman's "phlegm" is a magical substance produced in some ASC that has the property of being able to be transformed into objects of use to its possessor. Manipulation of translinguistic matter "speaks" physical realities into existence; reality is created thereby. A religious expression of this idea, tying it back to the voice of the Logos, is found in the Gospel according to St. John. "In the beginning was the Word..." The world is spoken into existence; reality is linguistic to the core.

DNA is a strange attractor for some in ASC. DNA, in the same sense, is the language that bespeaks us, and the rest of the biosphere, into existence. DNA is syntactical, composable, now editable in a practical sense, thanks to Nobel Laureate Kary Mullis' LSD-inspired invention of the polymerase chain reaction. Francis Crick also experimented with LSD. The manipulation of DNA and RNA in an ASC is at the heart of the Experiment at La Chorrera. Slattery records experiences of DNA manipulation in high-dose psilocybin sessions in the ADs. Jeremy Narby's core intuition about the convergence of the shaman's twined serpent, and the Cosmic Serpent in mythology, with DNA tells another version of this linguistic creature made of living language. One can only speculate what a group of scientifically *and* psychonautically trained individuals, working collaboratively, sharing intuitions, and testing them experimentally and experientially might come up with to further our knowledge in this realm.

7.5.2 Natural Language, and the Evolution of Language and Consciousness

Natural language is customarily proclaimed, by psychonauts and mystics, as inadequate to express the realities of the ASC in its many forms. This functional unspeakability defines "the Unspeakable" as an ontological category in ASC.

In the view of xenolinguists, natural language is sometimes seen as the structural elements of the prison of our cultural conditioning—mediating our ordinary, day-to-day reality. This cultural conditioning is softened, loosened, or dissolved in the ASC, a feature of psychedelic ASC that earned Timothy Leary the title “most dangerous man in America.” When cultural conditioning—belief and caste systems, political assertions, legal boundaries, behavioral norms, and standards of reality—are viewed from outside, they lose their monolithic power. To “question authority” has social and political consequences, as the 60s demonstrated. Slattery describes natural language, from a viewpoint outside its operation, as slow software, unable to keep up with the speed of cognitive processes in ASC. Grey’s transmitted language, *Secret Writing*, is described as universal, untranslatable into natural language, which would pin it to specific, and culturally conditioned, meanings.

Mark Pesce narrates the geometrically accelerating evolution of linguistic forms: from the invention of writing, through new media, including virtual reality, and the programming languages that bring these media into being. McKenna, Slattery, and Tucker assert the mutual evolution of language and consciousness, in accelerating feedback loops. The fractal mountain of Timewave Zero plunges toward omega; in Slattery’s ASC, the Glides relate the urgency of the mission of new language: *the mission is the transmission*.

New forms of language develop new forms of logic, logics that subsume the paradoxes of the observer, consciousness, and self-referentiality. The inescapable clash of opposites, when the world is viewed in terms of binary oppositions, is replaced by a both/and view where the opposites are seen as mutually arising and wholly co-dependent entities, defining each other, independent yet unified: the *coniunctio oppositorum*.

7.5.3 The Eschaton

One of the unexpected findings in the narratives of the xenolinguists was a deep ethical dimension to their explorations, springing from visions of connectivity and unity, what Richard Doyle terms “the ecodelic hypothesis.” The convergence and interaction of the accumulating waste products of civilization in air, landfills, nuclear waste dumps, and oceans; climate warming; population pressure; the extinction of species and steep reduction of diversity in the biosphere; the potential of global terrorism to destabilize nations and economies; the new dynamics of pandemics rapidly spread by global transportation systems; the growing chasm between rich and poor in the distribution of resources and the opportunities for survival, and the lack of political will to overcome nationalistic self-interest and work effectively toward solutions, can create an apocalyptic discourse in the vacuum of effective action.

Terence McKenna’s apocalyptic vision, formed in the crucible of the Experiment at La Chorerra, and given mathematical expression in Timewave Zero is called the Eschaton. Its parameters include the historicity of the trends listed above, but go beyond to an idea of the end of history, and the transformation of consciousness as we know it, into a cosmic shift of unknown and unpredictable dimensions. He balances the Big Bang hypothesis of Something out of Nothing, which he sometimes calls “the limit case of credulity,” with an equally incredulous transformation of Everything in Nothing, at winter solstice, 2012. The form of Eschaton is nothing we can conceive or predict. He has imagined it in a series of extravagant mythological terms as the end of all human games as now played; as the delivery of consciousness into the hyperspatial realms of the imagination; as the incursion of the hyperdimensional roving lenticular vehicle into three-space; and as the manifestation of the Philosopher’s Stone. Dating and awaiting an apocalypse, which is always framed as *the* apocalypse, is a dodgy business, as millenarians

have found, subject to high expectations and equally monumental disappointments, when prophecy and reality finally come face to face. Whatever else this loaded concept where all McKenna's archetypes converge might imply in terms of baseline realities, it bespeaks the sense of need of change, drastic change, and inevitable change in the human condition, in the way we use our minds and hearts, in the way we are conscious of ourselves, and our connection to each other and to the natural world. Changes of this magnitude on the individual level have been experienced by the psychonaut within the space of a single psychedelic session. Whether these *states* can become *traits*—in other words, how these experiences, and the knowledge one gains, are integrated into baseline reality—is a different matter. Accounts of psychedelic metanoia, of life-changing conversion in a positive direction, exist, and there is no reason to doubt their efficacy. However, for others, the assimilation of the slower apocalypse of multiple sessions is a developmental process, a school, a learning, a practice toward a more benign way of being in the world. The xenolinguists, in the forms of their symbolizing, and in their notions about their practice, uniformly present a world view of connectedness, of interdependence, and of fundamental unity, a view in stark contrast to the nightly news.

In the co-dependent evolution of language and consciousness, catalyzed by psychedelic states, new visions of symbolic connectivity arise. A ternary logic of inclusion becomes not just an intellectual exercise but a creode shaping the way realities, at baseline or in ASC, are experienced. A new, non-antagonistic ground of cognition, becomes, with practice, the norm for conceiving appropriate action.

These visions are the heart of the ethical dimension of the work of the xenolinguists, vision of re-union, re-connection, of the kind of change of mind and heart necessary to not only re-shape our notions of what it means to

participate in the biosphere, but the life-changes on the individual level that can lead to productive, cooperative action. The hypernoia of connectivity leads to metanoia at the individual level: changed minds and hearts.

These changes are framed in new linguistic forms, each in its own way a remedy of unspeakability. The xenolinguists exercise the freedom to communicate with the invisible landscape and to bring back new ways to communicate, new symbolic systems, new modes of expression. This freedom of communication depends upon, and is meaningless without, the freedom of thought and imagination, the cognitive liberty from which all novelty and creativity arises. These xenolinguistic systems are the production of experienced psychonauts, exercising their cognitive liberties in the exploration of their own minds.

It is my opinion that the new symbolic forms coming into being through the xenolinguists cannot be reductively explained in terms of science, art, or transpersonal psychology. Arising from ASC, they are transformative systems for their practitioners, personal technologies for changing consciousness at a deep and irreversible level. Working within these systems produces consciousness change; consciousness change feeds back into the development of the xenolinguistic practice and its forms of expression. Symbolic systems and consciousness co-evolve; for the xenolinguists, this process is catalyzed by psychonautic technology.

7.6 Contribution to New Knowledge

This thesis claims first that first-person psychedelic experience (psychonautics), by providing novel perceptions and realities, opens a new field of observation for the study of consciousness. This claim is not supported by those in consciousness research who dispute the value of subjective findings or “introspectionism” as a valid method of knowledge acquisition about the

brain/mind or consciousness in general. That the data presented comes from, in some cases, illegal activities makes it suspect on a socio-political level as well as methodologically.

The use of psychonautics, and the highlighting of long-term use in knowledge and artistic practices (and in the use of psychoactive and artistic methods as research tools—the technoetic approach) breaks new ground methodologically. Treating these texts as a literature that can reveal common features of the psychedelic landscape by comparing and analyzing reports creates new knowledge assemblages, in Turnbull's term, from which maps and models can begin to be formed. These narratives reveal new realities: new worlds, new dimensions of space/time, entire landscapes to explore. This research builds on the earlier models from ASCR of multiple levels of reality, and proposes a concomitant model of multiple selves. The value of experiences of multiple selves is negatively assessed in the medical/psychiatric models of Western science. These experiences are more positively assessed in the experiences of multiphasic societies; the management of multiplicity is part of the technical skill of the psychonaut in any cultural setting.

Such reports were used to explore the phenomenon of new language, new symbolic systems, new linguistic formations arising in psychedelic experience and brought back to baseline for examination in this reality. As this subject has not been given extended attention and analysis, in either above- (academic) or under-ground fora, the content itself, and the correlations both among the experiencers reports, and with aspects of neurophenomenological theory constitutes "new knowledge." This knowledge supports the speculations of paleontologists connecting our earliest forms of inscription in rock art to experience in ASC, through the connection of some of the forms of the symbolic systems, through Heinrich Kluver's delineation of form constants, to the forms found in many examples, globally, of rock art. This knowledge is also

suggestive of the connections between psychedelic use and the development of new technological languages and software in the burgeoning media ecology of post-LSD technological industry.

7.7 Future Research

The use of psychonautics—long term development of a knowledge-acquiring practice—suggests some directions for future research. This thesis deliberately narrows the focus of the content studied to linguistic phenomena. However, in the same texts, many other areas of knowledge are explored and experienced. Narratives of long-term personal development and changes made in the direction of the quality of daily life are interwoven. These texts, and the broader field of the literature of psychedelic self-exploration, from the canonical texts of Ludlow, Baudelaire, Rimbaud, and, more recently, Henri Michaux, to name a few, have begun to be studied by cultural critics such as Marcus Boon and Dave Boothroyd, but many of the texts of psychonauts such as Leary, Lilly, Pendell, McKenna, and many others, have received scant attention, and await thoughtful analysis.

Psychonauts investigating first-hand the effects of a wide variety of plants on consciousness, and especially what the plants, as teachers, are revealing, has been studied in South American cultural contexts, but little in the experience of Western psychonauts.

Researcher Thomas Ray, seeking to correlate patterns of receptors activated by a spectrum of psychedelic substances, studies first person reports, and finds the need for more complete data to construct his theory of the chemical architecture of psychedelic experience.

Potential topics for sociological studies abound. The effects of psychedelic use as a problem-solving and creativity adjunct among technologists, especially in aspects of the computer industry, studied using the standard methods of

surveys and statistical research, and/or with the collection of oral histories documenting a developmental history would add to further knowledge about the unspoken uses of psychedelics in parts of society. New studies are being proposed by the medical community for the investigation of the use of psychedelics in the treatment of conditions such as PTSD, drug addiction, and end-of-life anxiety. However, the stories of individuals who have already experienced healing of medical, psychiatric, and existential situations (such as the self-organized community of cluster headache victims who are successfully using psilocybin to treat this debilitating condition) have yet to be collected in useful numbers and analyzed for what they can tell us about the relief of human suffering.

Many of these lines of research depend on the willingness of individuals to tell their stories in their fullness, as the handling of anonymity and closeting issues are critical to the collection of useful reports. The topic, framed in the unspeakabilities outlined in the introduction, can be dangerous to discuss openly. But as John Perry Barlow asserts,

Engaged in the politics necessary to wire the world, I encounter many people in positions of influence and visibility -- politicians, corporate leaders, scientists, engineers, writers, academics -- who are motivated by the same mystical drive that propels me. They are acidheads, but nearly all of them are afraid to admit it. Its as though the future were being created by a secret cult. And even though it's my secret cult, I'm not crazy about secrecy or cults, and I'm certainly not keen on having them design the rest of society. . . I think it's time to be brave and honest. I know that if everybody who'd ever taken a major psychedelic stood up and said, "Yeah, I did that and this is how it changed my life," the world would be a better place the next day (Hayes 2000).

Collecting, organizing, and archiving this kind of data—that of long-term psychedelic use—is the proposed next stage of my own research efforts. My hope is that the speaking out of unspeakabilities in this thesis will encourage others to make available the records of their own researches, and thus add to the store of new knowledge in this contended frontier of knowledge about consciousness.

4 References

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8 Appendix I: Illustrations



Figure 1. Emblema XXXVI. The Stone that is Mercury, is cast upon the earth, exalted on Mountains, resides in the Air, and is nourished in the Waters. Michael Maier, *Atalanta Fugiens* or *New Chymical Emblems of the Secrets of Nature*, 1618.

This alchemical picture of the insertion of the lapis or philosopher's stone into ordinary reality has always reminded me of download experiences. T.

McKenna references the same picture in his telling of the events at La Chorrera: "The thirty-sixth emblem of Maier's *Atlanta* (sic) *Fugiens* is a wonderful visual pun that connects the cube of *Stropharia cubensis* with the UFO, the hyper-object seen in the sky."

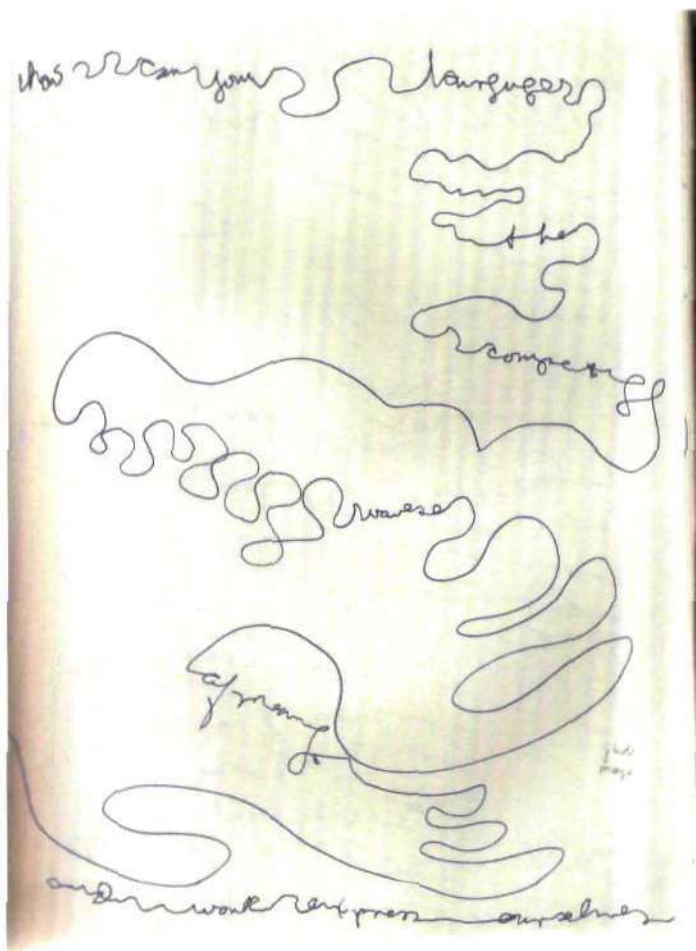


Figure 2: Natural language dissolving in and out of the energy of the serpentine lines; the gesture reflects the energetic movement of the Rainbow serpent. AD_01.07.14



Figure 3: The Basel Broadsheet, Samuels Coccius, 1566.

Circular discs appearing in the sky over Basel, "moving before the sun with great speed, and turning against each other as if fighting. Some of them became red and fiery and afterwards faded and went out." (Jung 1978)

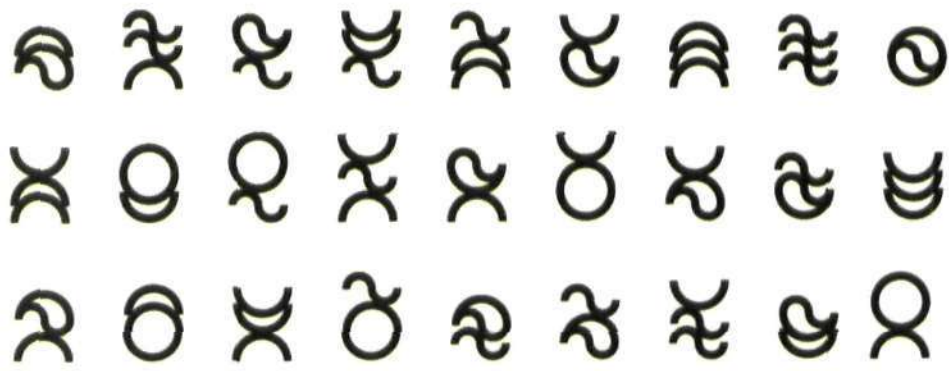


Figure 4: The 27 Glide glyphs.

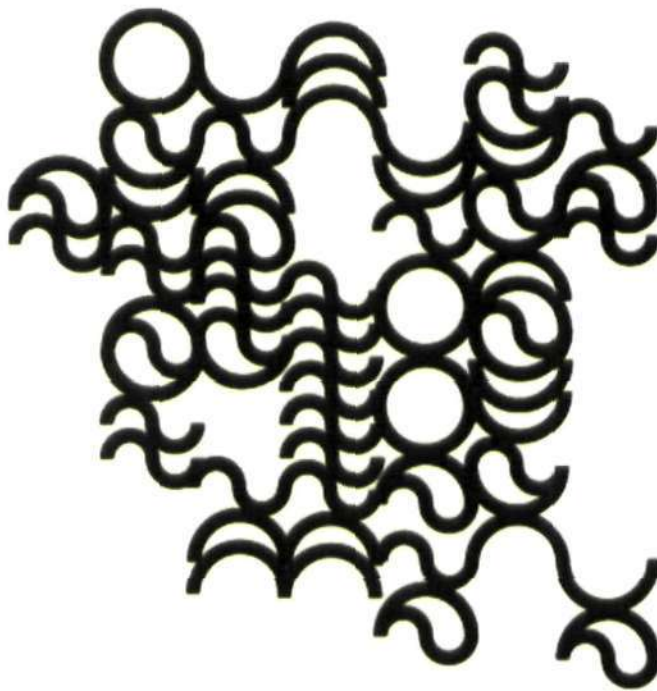


Figure 5: Two-dimensional Glide maze.

Figure 8: Electron micrograph of psilocybe mushroom mycelium.
Paul Stamets, used with permission.

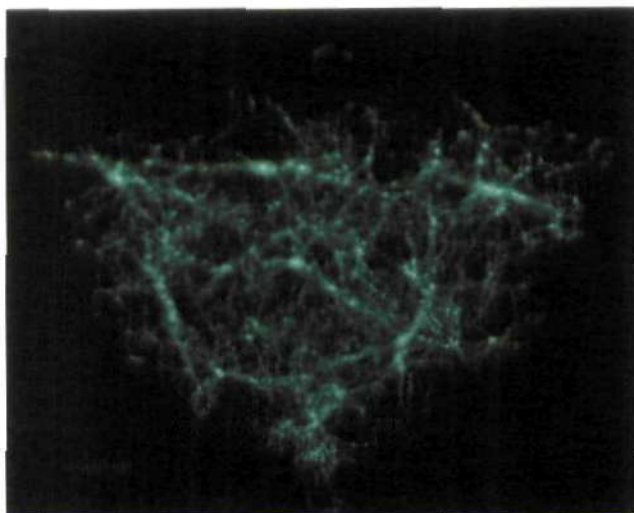


Figure 9: Visualization of dark matter.

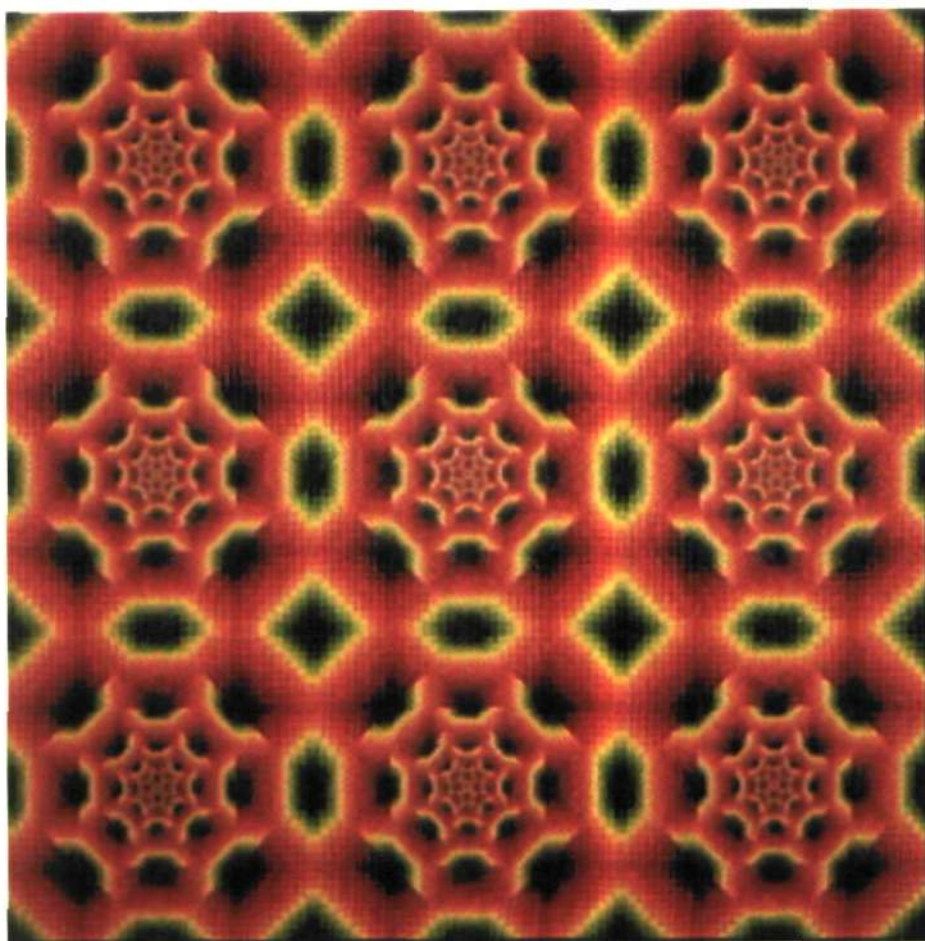


Figure 10: Allyson Grey, Jewel Net of Indra. Oil on wood, 40" x 40", 1988.



Figure 11: Alex Grey, Universal ~~285~~ 4D Lattice.

	ENTOPTIC PHENOMENA		SAN ROCK ART		COSO	PALAEO LITHIC ART			
	A	B	ENGRAVINGS	PAIN TINGS	E	MOBILE ART		PARETAL ART	
			C	D		F	G	H	I
I									
II									
III									
IV									
V									
VI									

Figure 12: Six categories of entoptic phenomena compared with San and Coso rock art and Paleolithic rock art. From Lewis-Williams article, "Signs of All Times." (Lewis-Williams 1988)

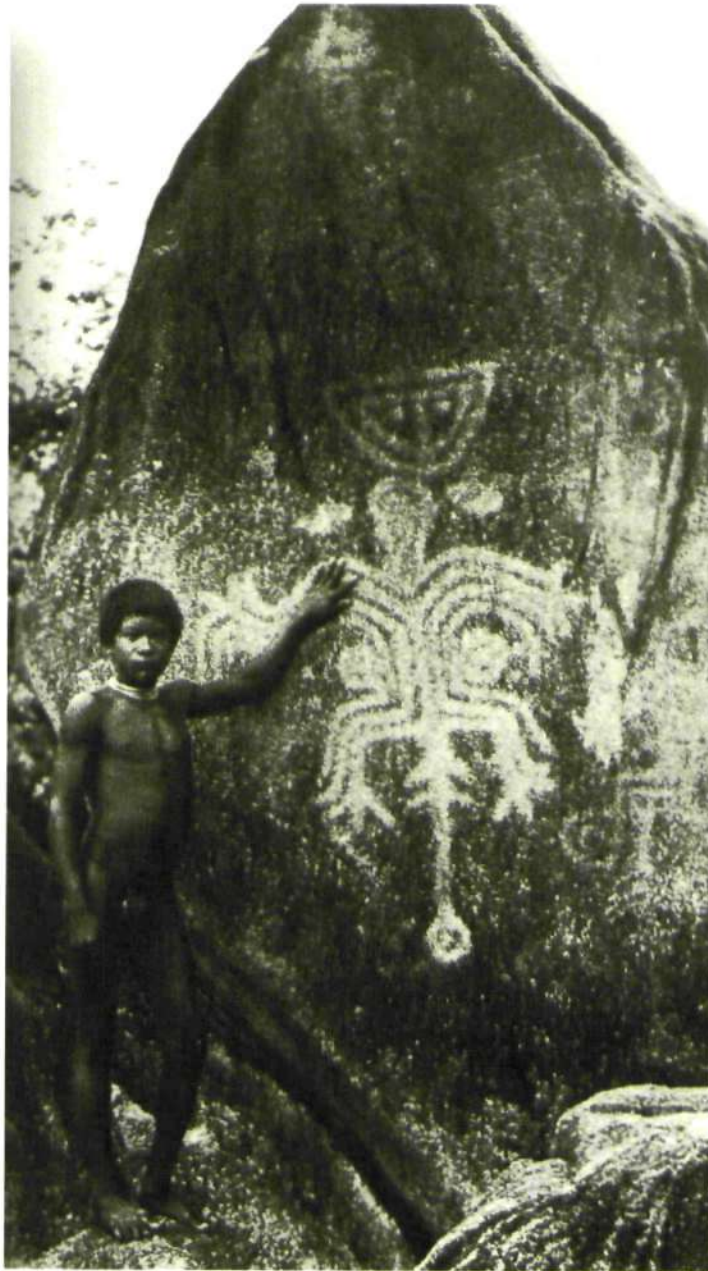


Figure 13: Rock art, Nvi, Columbia. From Schultes, *Plants of the Gods*.



Figure 14: Anasazi rock art, Cedar Mesa area, Utah. Photograph by Diana Slattery, 2009.



Figure 15: Mary Alexander, detail of a pieced Hexagonal Star Quilt, c. 1880.

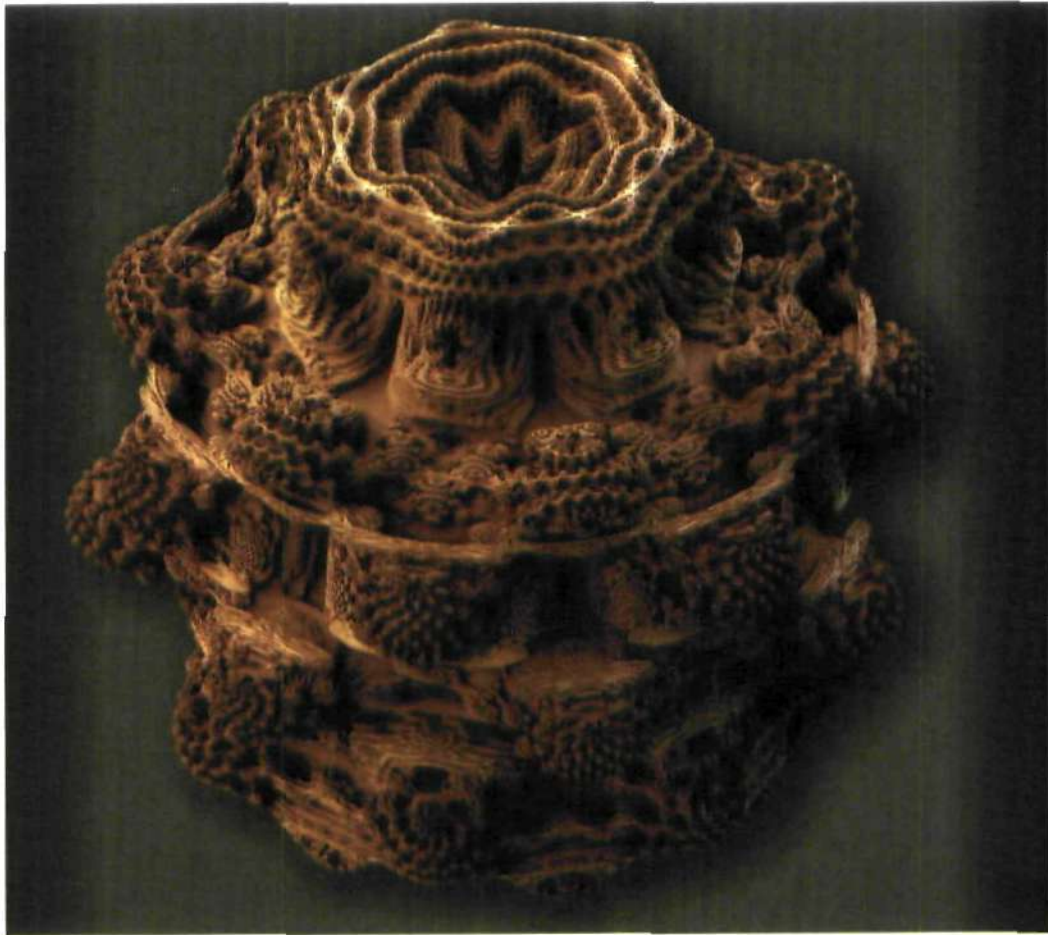


Figure 16: The Mandelbulb, a three-dimensional rendering of the Mandelbrot set.

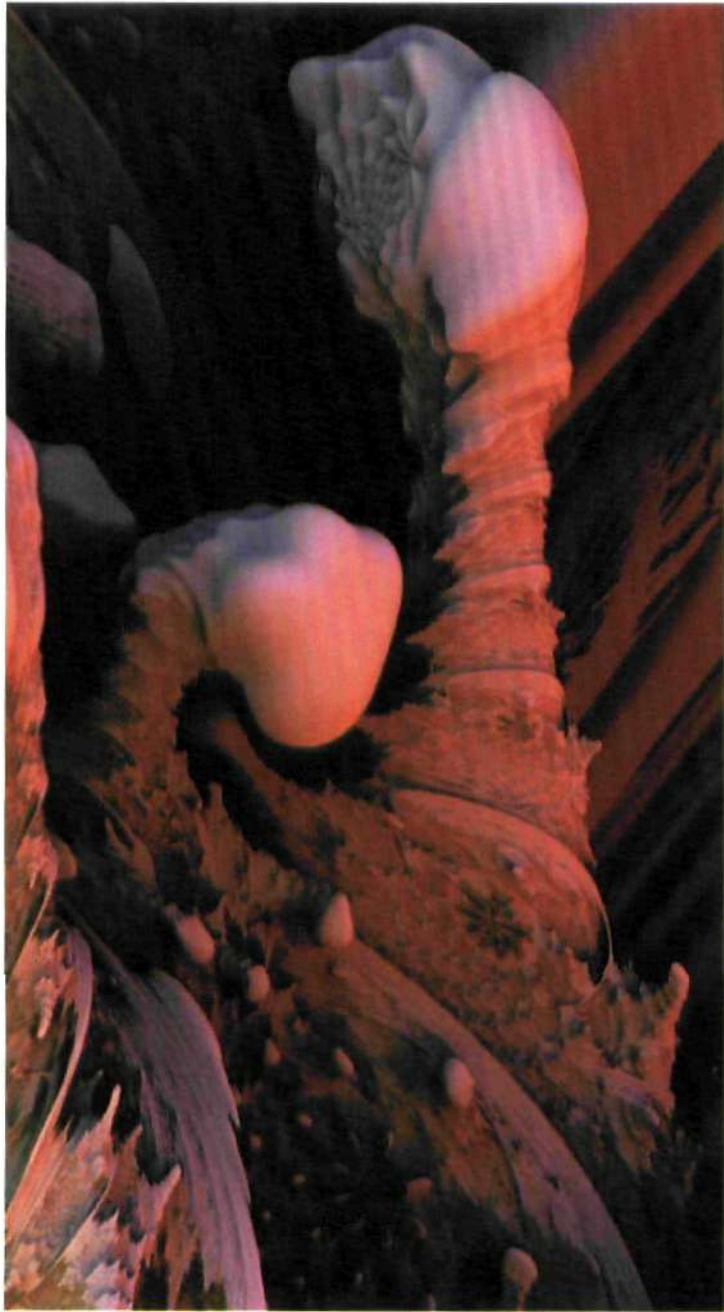


Figure 17: Mandelbulb, detail.

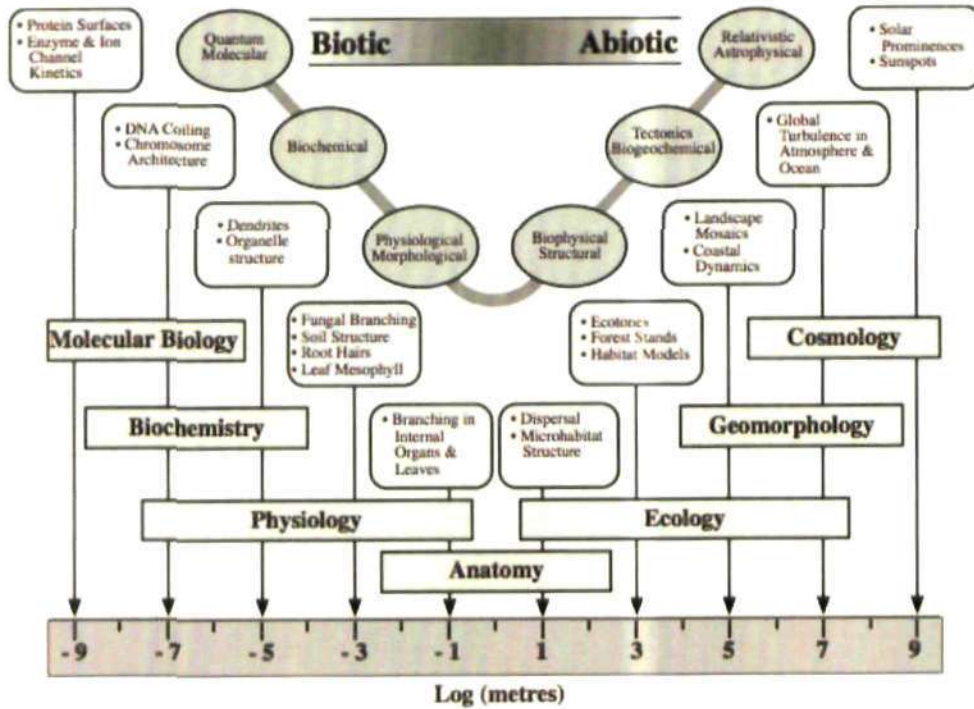


Figure 18: N.C. Kenkel's diagram of fractal patterns in biotic and abiotic domains.



Figure 19: Suzanne Nes, Bonesinger.



Figure 20: Evelyn Parkin, *The Rainbow Serpent*.



Figure 21: The Rainbow Serpent in rock art, Australia.



Figure 22: Detail of a study of the Rainbow Serpent as primal energy of the forms underlying the Glide symbolic system. Diana Slattery, 2009. (AD_09.09.09 2C-B)

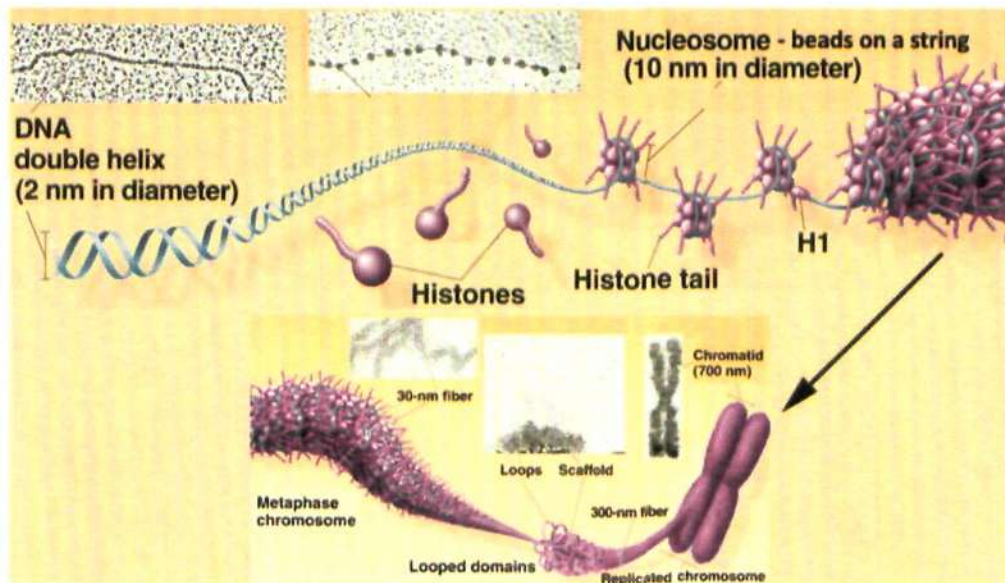


Figure 23: DNA structures spiraling up through scalar structures from 2 nm to 300 nm.
<http://www.bio.miami.edu/~cmallery/150/cells/organelle.htm>.

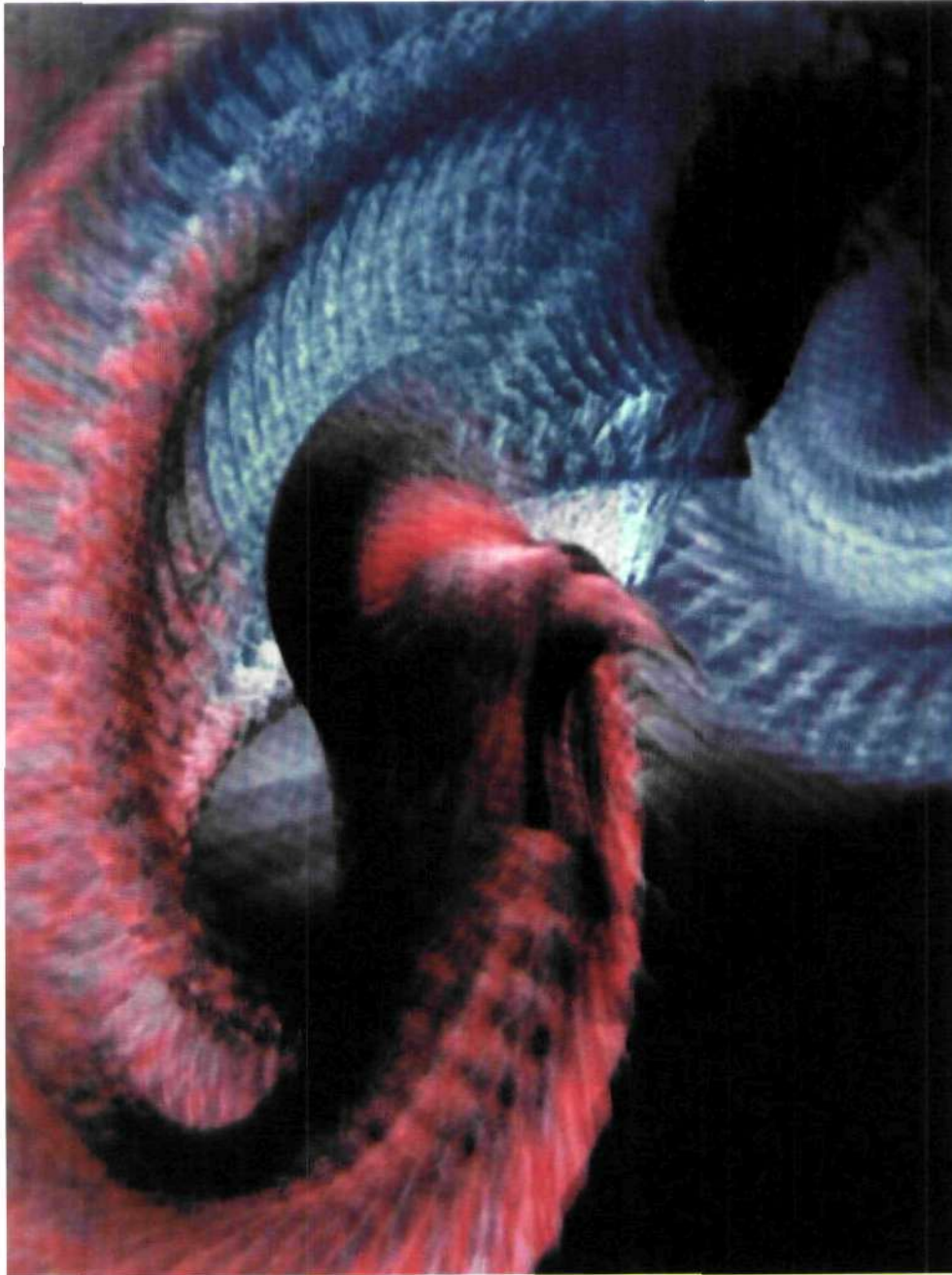


Figure 24: LiveGlide, still image, Diana Slattery, 2006.

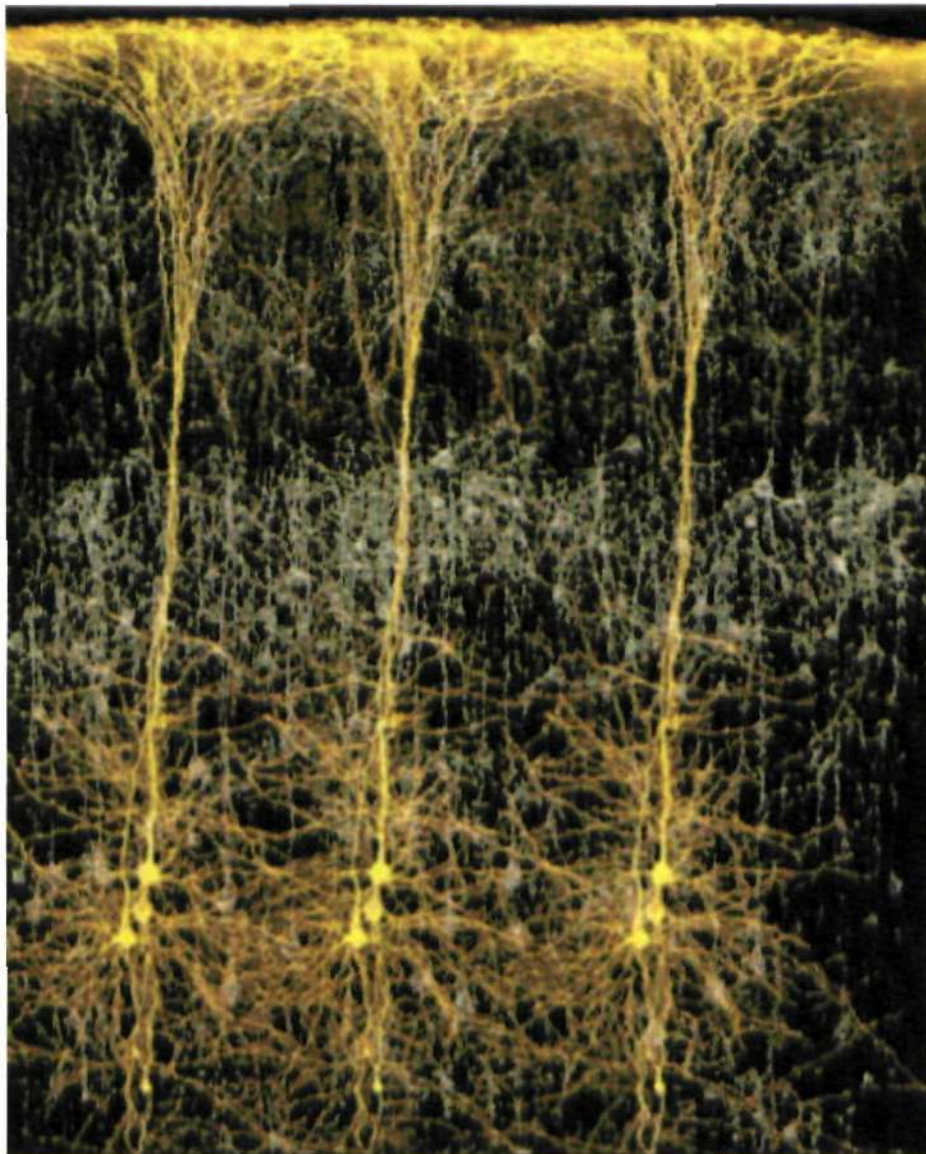


Figure 25: Illustration of some of the vertical symmetries in cortical columns, the central processing units in the cerebral cortex. (Farmer 2006)

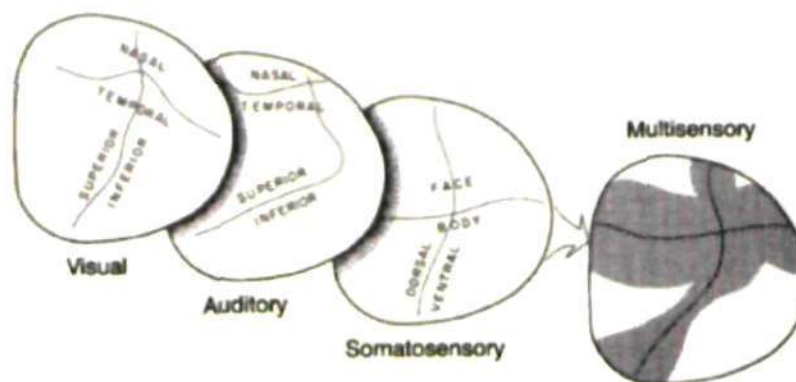


Figure 26: An abstract representation of the integration of topographic (or correlative) maps involving vision, hearing, and touch in multisensory integration centers. (Farmer, 2006.)

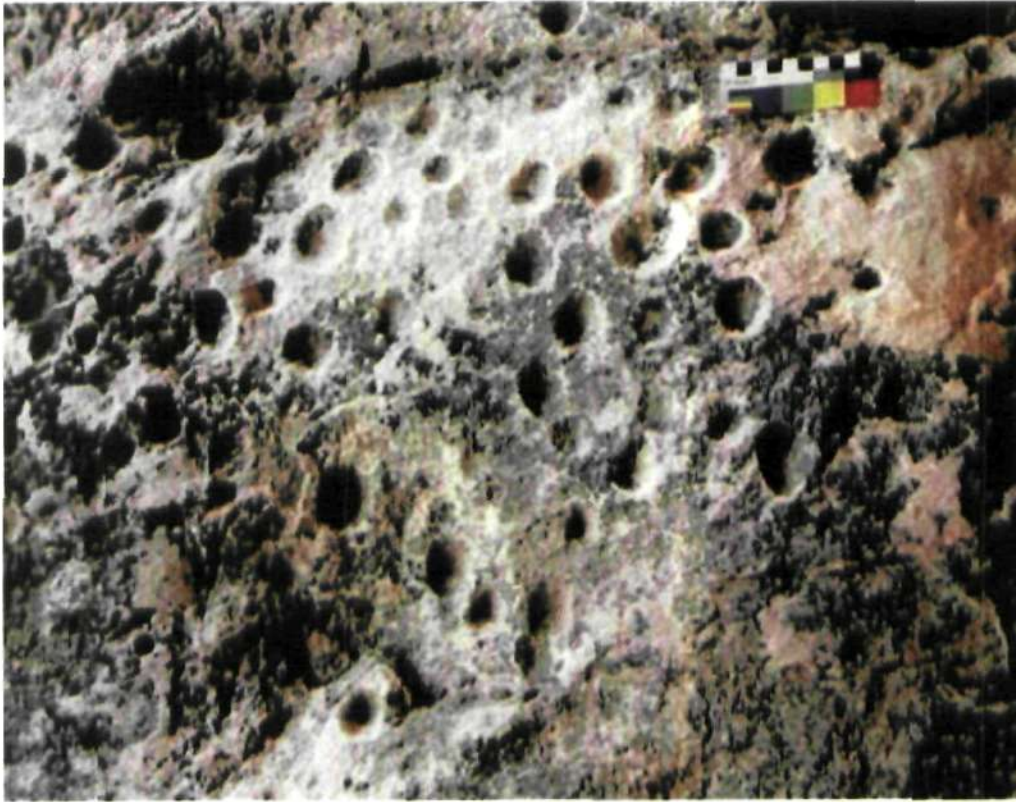


Figure 27: Cupules on the northern wall of Dariki-Chattan Cave, India, 200,000 to 500,000 BP.

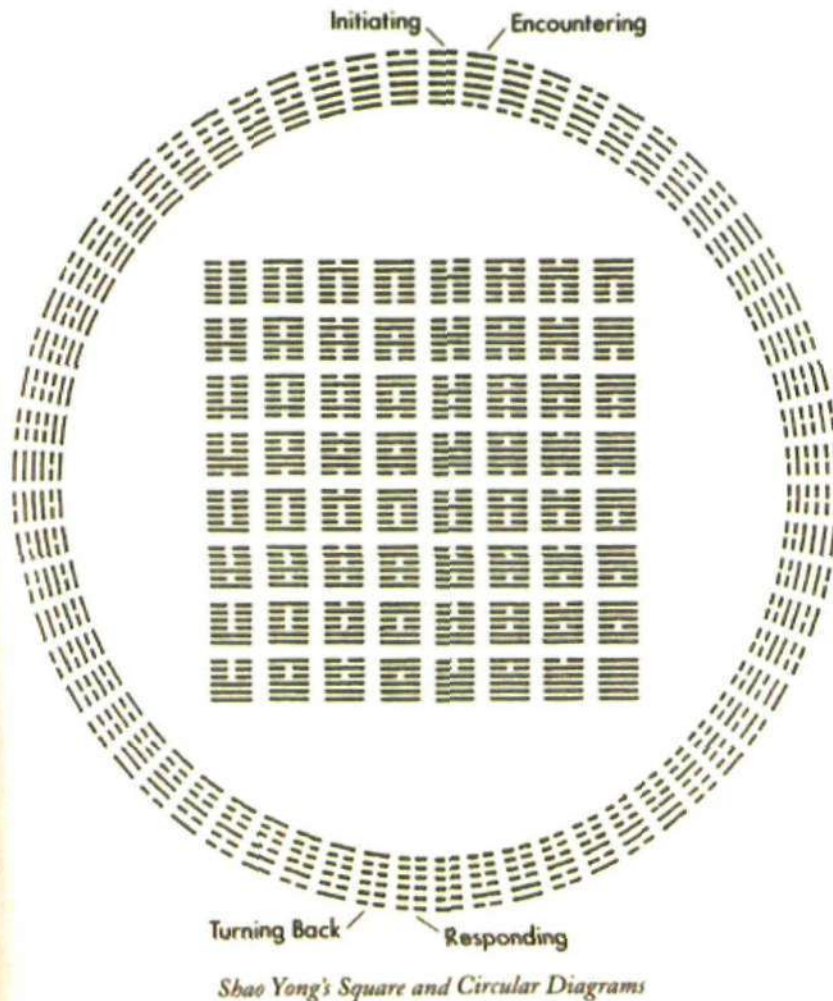


Figure 28: Shao Yong's two arrangements show the binary system of the *I Ching* that Leibniz related to his own. Illustration from Huang, A., *The Numerology of the I Ching*.

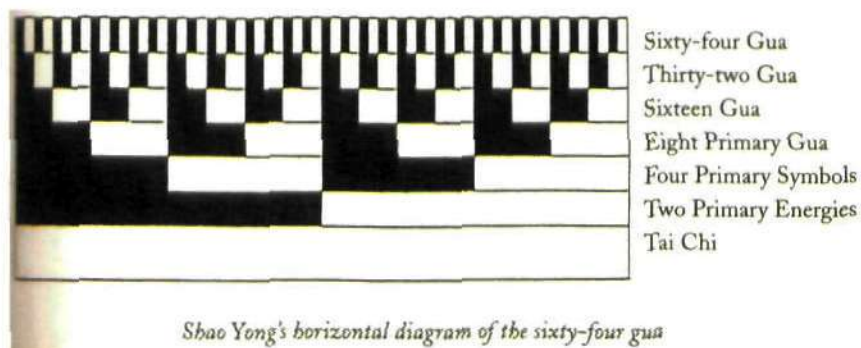


Figure 29: Shao Yong's diagram illustrating the binary--and fractal--structure of the 64 *gua* evolving from the primal undifferentiated Tai Chi. From Hunag, A., *The Numerology of the I Ching*.



Figure 30: "Fight Linguistic Extinction--Invent a Language!" (David Peterson's Kamakawi sc

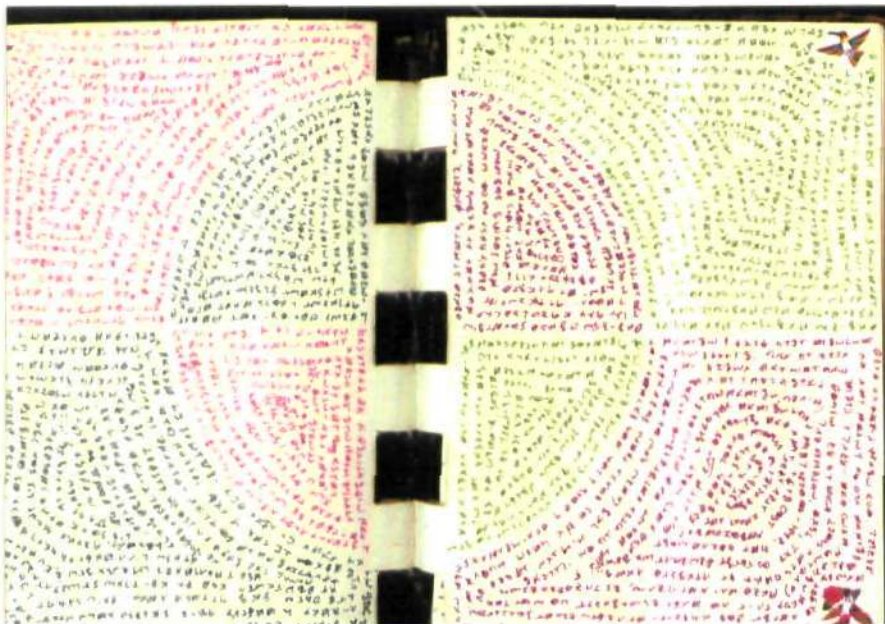


Figure 31: Deena Larson's Rose language/code.

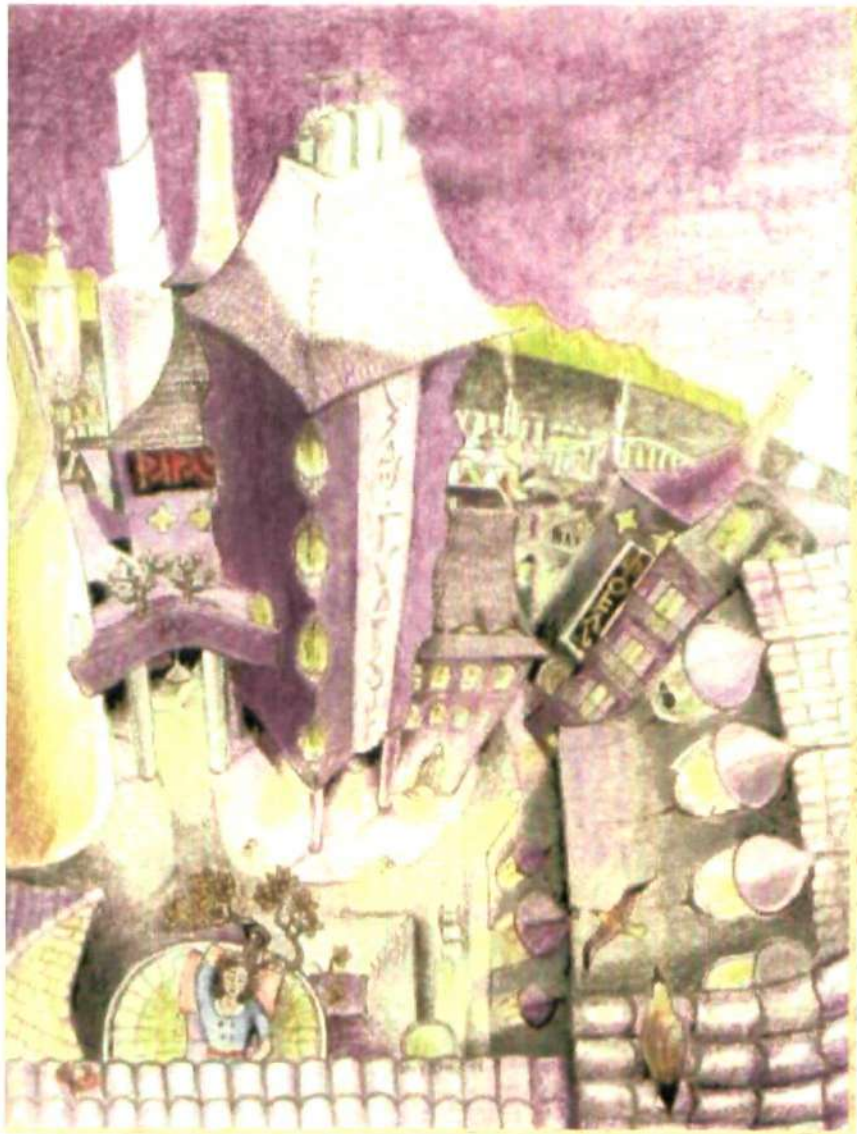


Figure 32: Sally Caves, drawing of Teonacht, a constructed world and language.

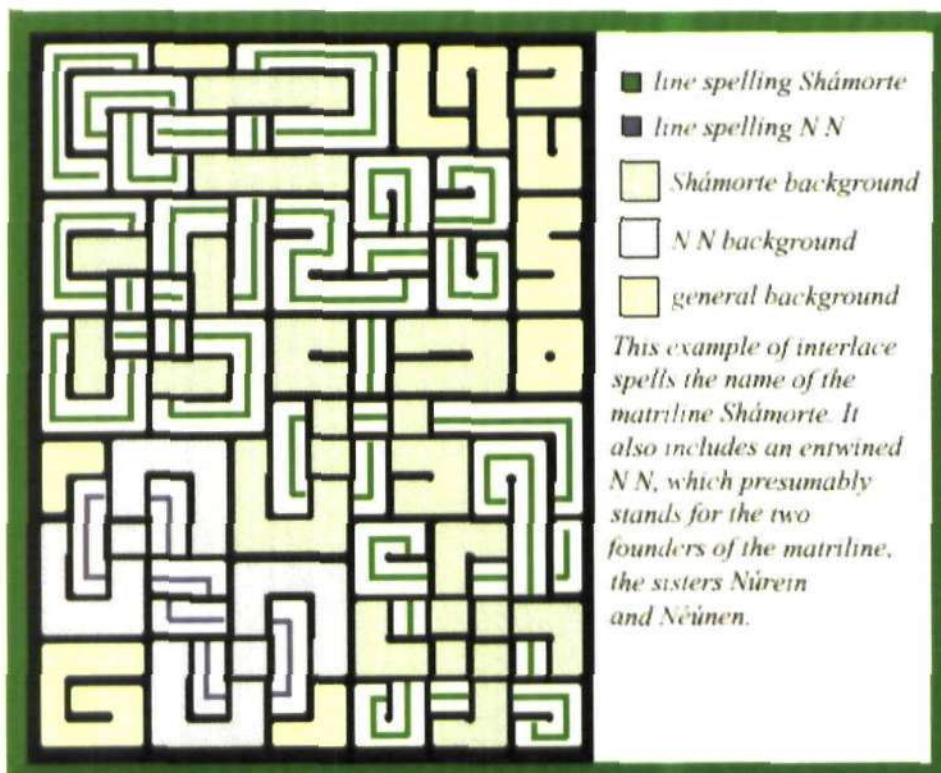


Figure 33: Sylvia Sotomayor, Kelen ceremonial interlace script.



Figure 34: Sylvia Sotomayor in Kelen ceremonial vestments.

ᐃᐱᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ ᐃᐃᐃᐃᐃ

Figure 35: Sylvia Sotomayor, Kelen regular script.

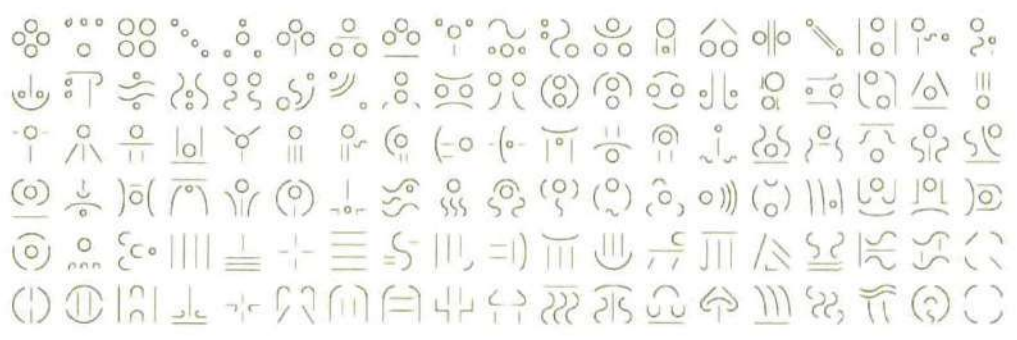


Figure 36: Dennis Moskowitz, Rikchik morphemes, based on tentacular gestures.

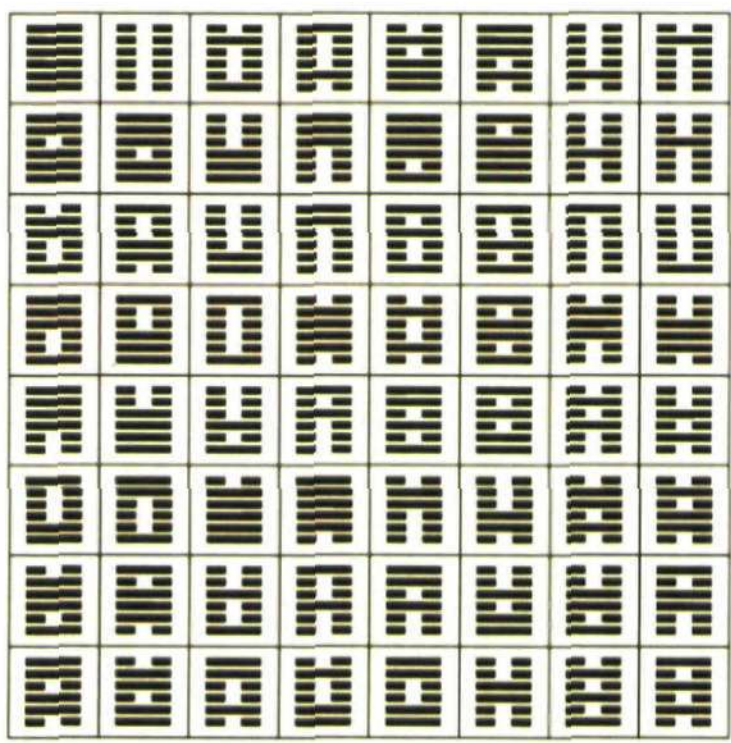
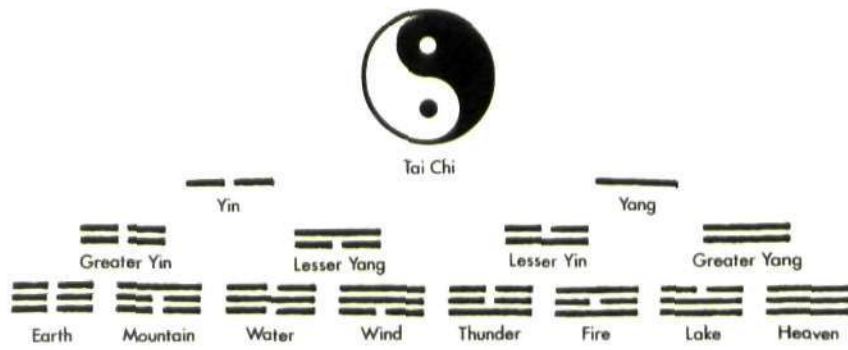


Figure 37: The King Wen sequence of hexagrams in the *I Ching*.



The Eight Primary Gua generated from Tai Chi

Figure 38: The Great Tai Chi and the development of the eight *I Ching* trigrams.

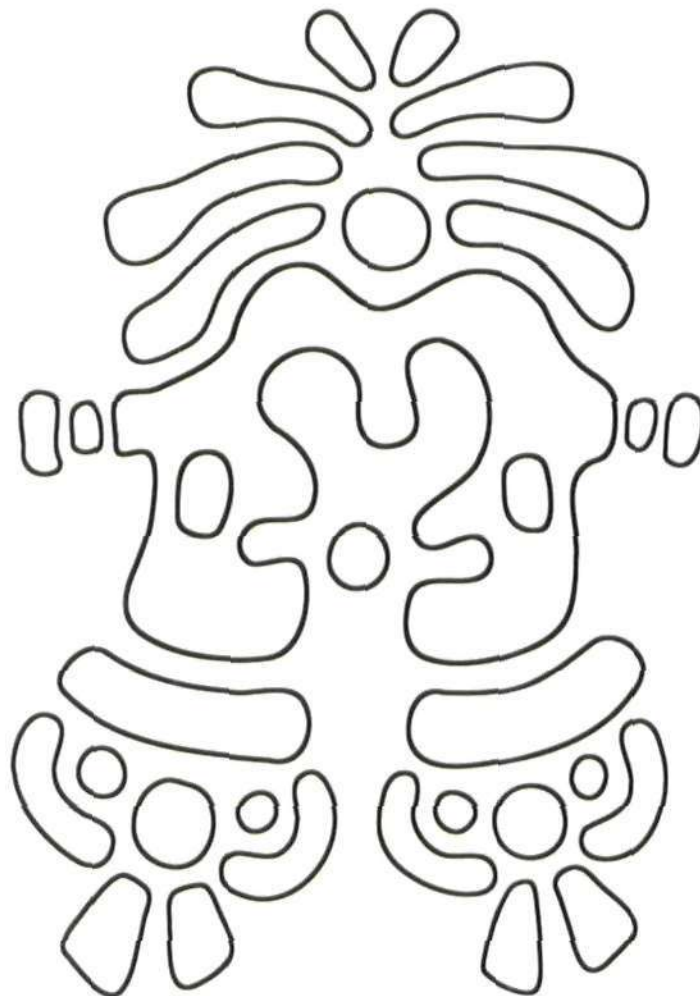


Figure 39: Jason Tucker, Actual Contact.



Figure 40: Jason Tucker, pre-cursor drawing to Actual Contact works.

Compare to the structures in Figure 14.

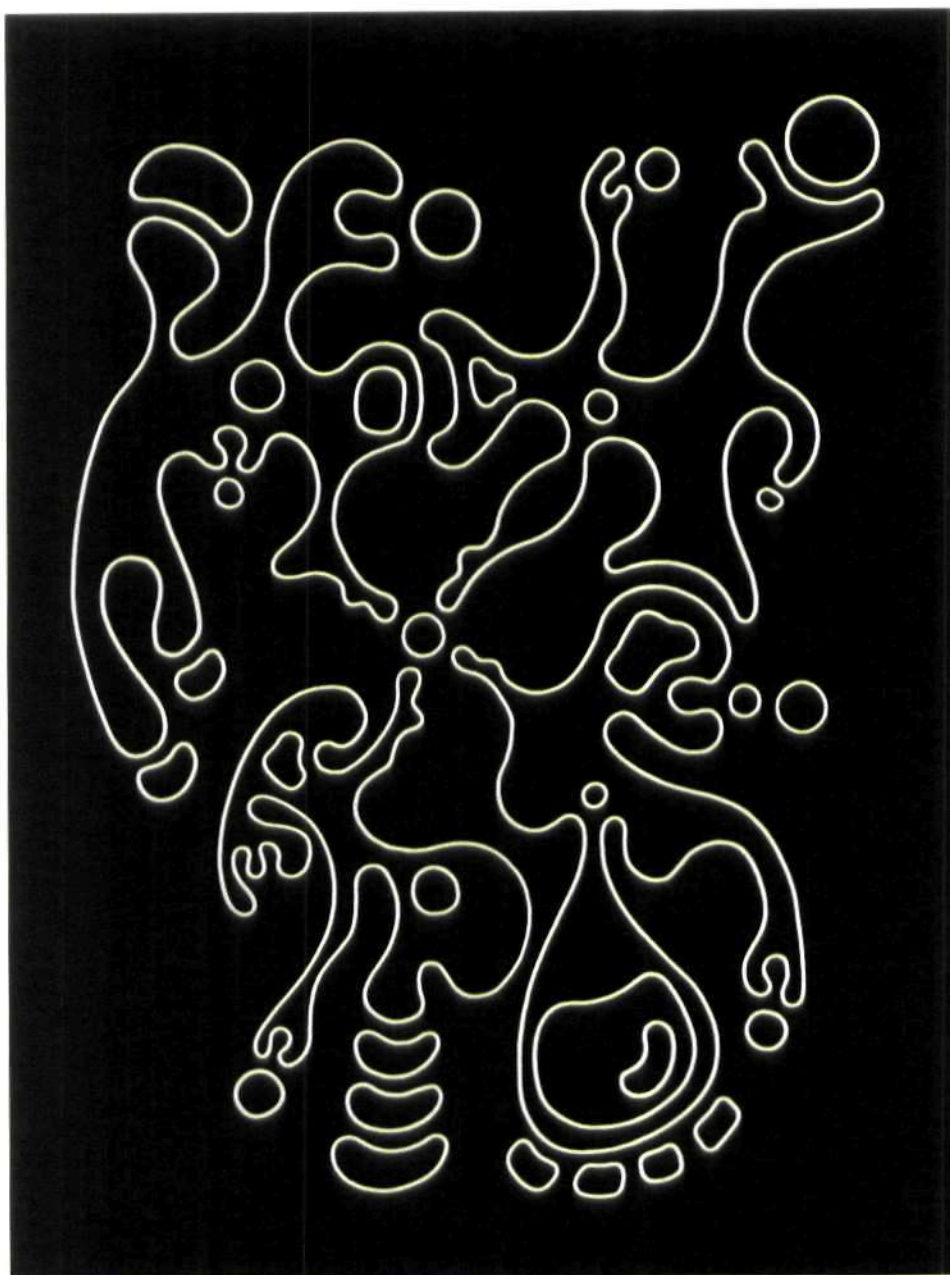


Figure 41: Jason Tucker, Actual Contact.

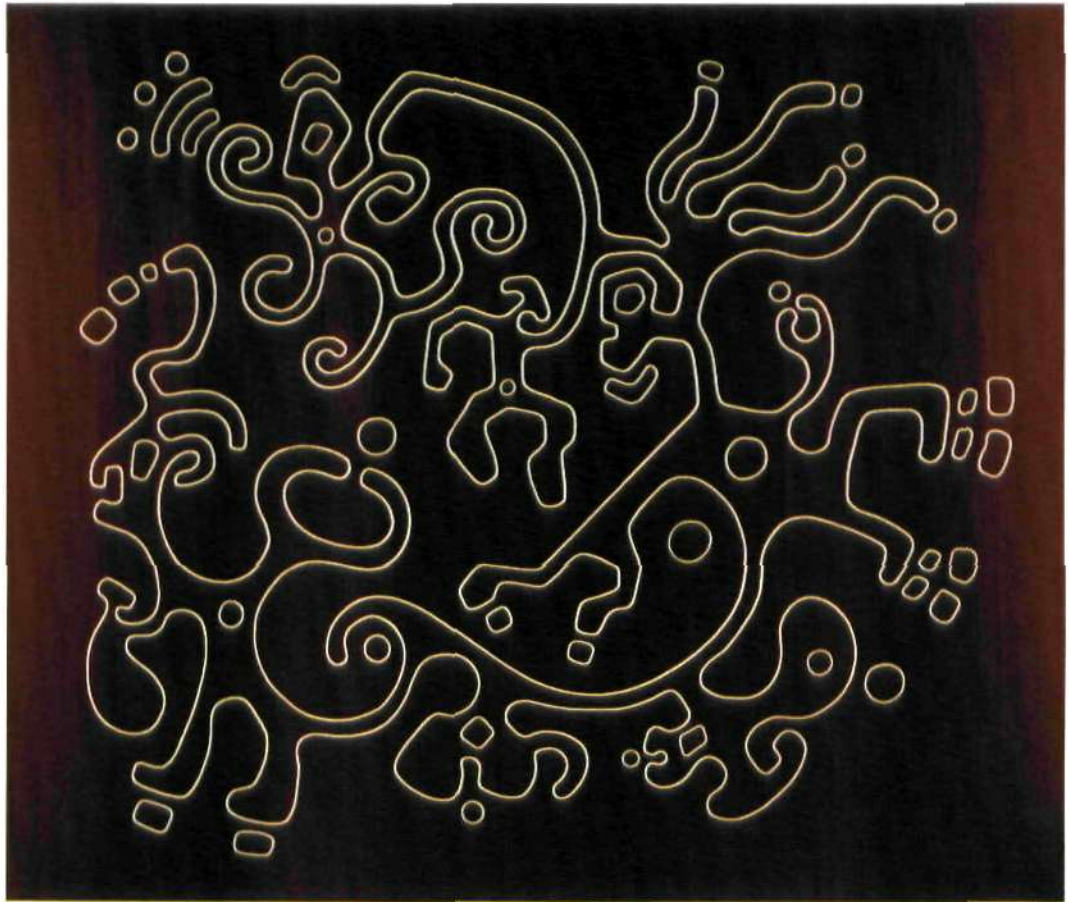


Figure 42: Jason Tucker, Actual Contact.

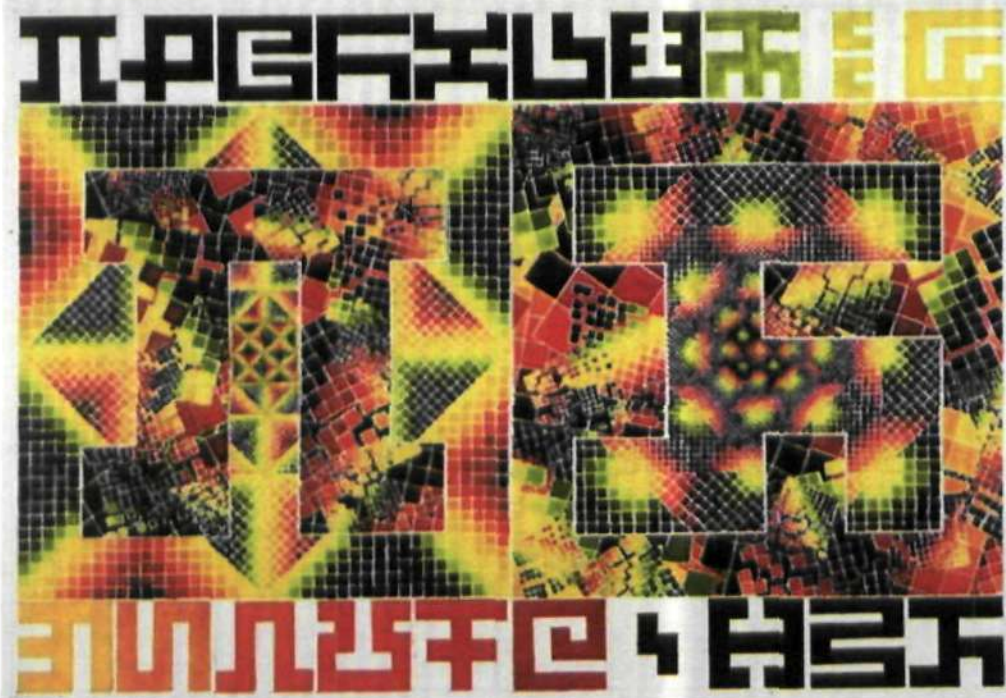
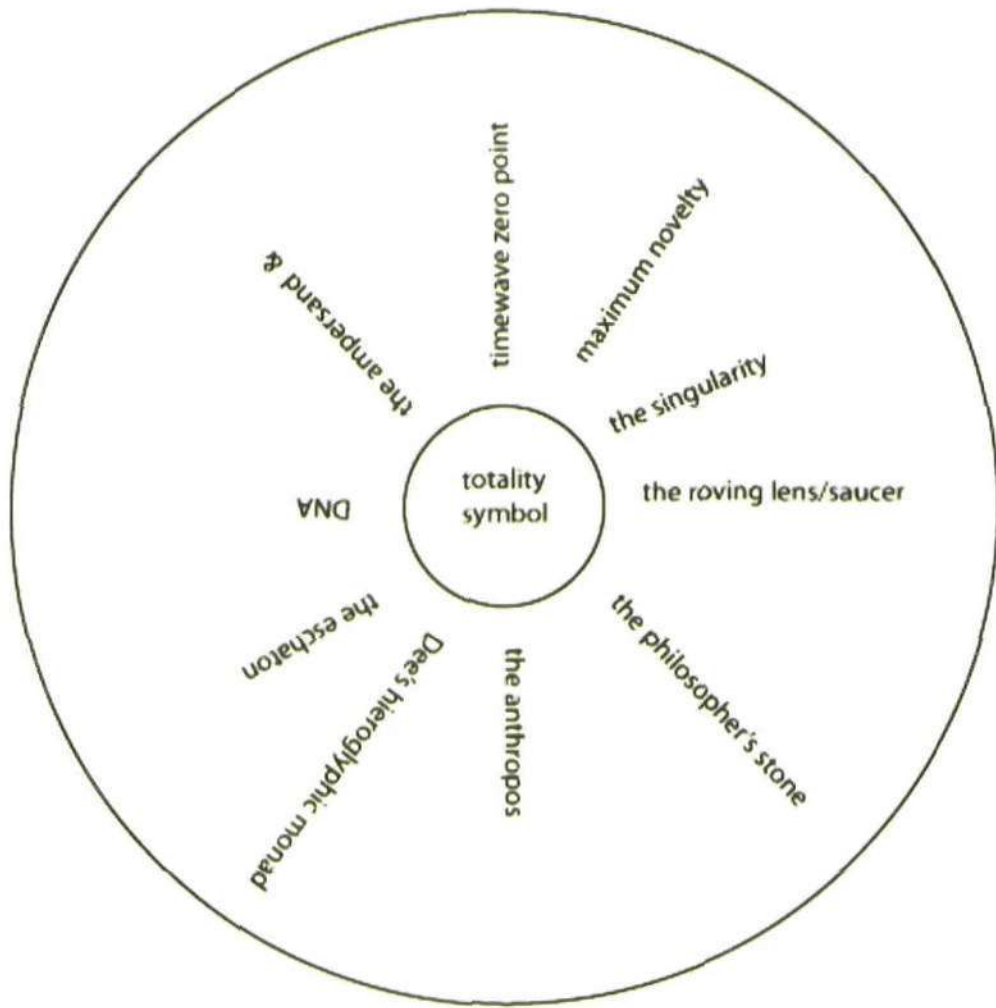


Figure 43.: Allyson Grey, Secret Writing # 5: Chaos, Order, and Secret Writing. Watercolor on paper, 13" x 9", 2000.



Terence McKenna's concrecence of symbols in the totality symbol

Figure 44: Terence McKenna: Elements of the Totality Symbol.

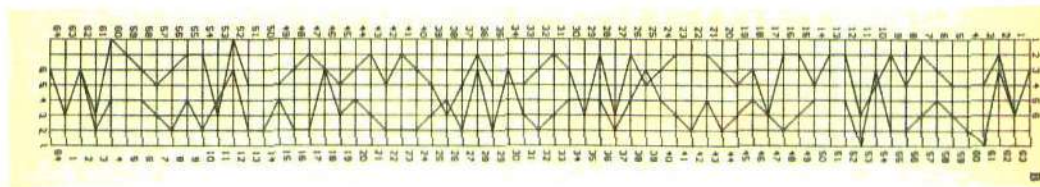


Figure 45: The forward and backward moving Timewave, reproduced from Figure 18b, *True Hallucinations*.

Initiating				Not Yet Fulfilled
Responding				Already Fulfilled
Beginning		Brightness	Mutual Influence	Little Exceeding
Childhood		Darkness	Long Lasting	Innermost Sincerity
Needing		Great Exceeding	Retreat	Restricting
Contention		Nourishing	Great Strength	Dispersing
Multitude		Great Accumulation	Proceeding Forward	Joyful
Union		Without Falsehood	Brilliance Injured	Proceeding Humbly
Little Accumulation		Turning Back	Household	Traveling
Fulfillment		Falling Away	Diversity	Abundance
Advance		Adorning	Hardship	Marrying Maiden
Hindrance		Eradicating	Relief	Developing Gradually
Seeking Harmony	Watching		Decreasing	Keeping Still
Great Harvest	Approaching		Increasing	Taking Action
Humbleness	Remedying		Eliminating	Establishing the New
Delight	Following		Encountering	Abolishing the Old
			Bringing Together	Replenishing
			Growing Upward	Exhausting

Figure 46: The semantic wave of changes in the King Wen sequence.
From Master Ai Huang, *The Numerology of the I Ching*.

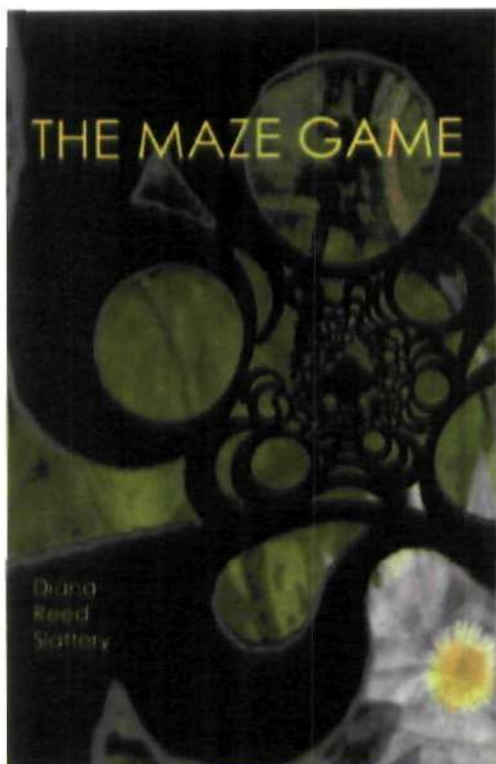


Figure 47: Diana Reed Slattery, *The Maze Game*, 2003.

	body embody rich	福轉 體現 鮮艷		cloud hide dim	覆蓋 隱藏 模糊		death dance ecstatic	死亡 飄揚 若狂		wine distill essential	葡萄酒 蒸餾 精華		pond emerge complex	池塘 浮現 複雜
	fire energize intense	激動 能量 強烈		star flower radiant	命運 盛時 燦發		pollen give plentiful	花粉 付出 充足		glide glide glide	滑動		world unify full	世間 一體 充滿
	heart feel responsive	感情 感覺 反應		light illuminate visible	透光 啟發 明顯		lily know intricate	潔白 精通 難解		lily pad float playful	漂浮 滑稽		mountain solidify real	極多 堅固 真實
	mind discern woven	真相 辨明 編造		moon reflect changeable	月光 反應 不定		sea sound deep	波濤 聲音 縱深		gift receive open	天賦 接收 坦率		root fear dark	本質 憂慮 陰鬱
	rain fall sad	降雨 跌倒 失望		space desire empty	空間 慾望 空洞		spirit breathe quicken	心靈 喘息 激發		path branch supple	途徑 支流 順從		wound strike sudden	創傷 襲擊 意外
	time go moving	時間 行走 動人		caress touch soft	愛撫 觸摸 輕柔									

Dictionary of Glide Glyphs
core meanings

Figure 48: Dictionary of Glide glyphs, core meanings. English and Chinese.

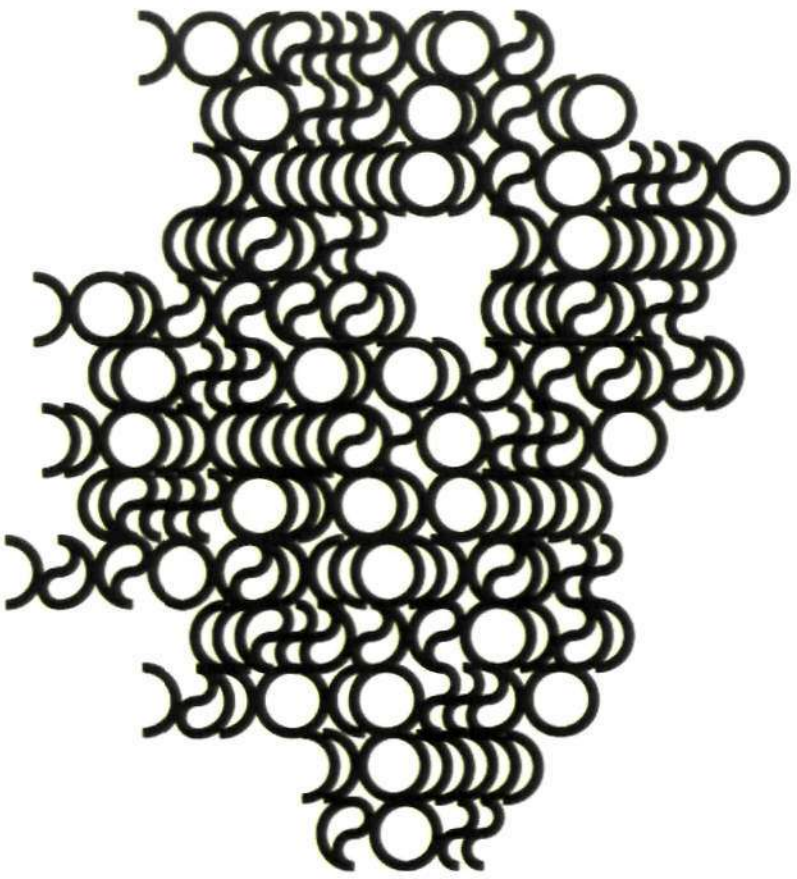


Figure 49: Glide maze.

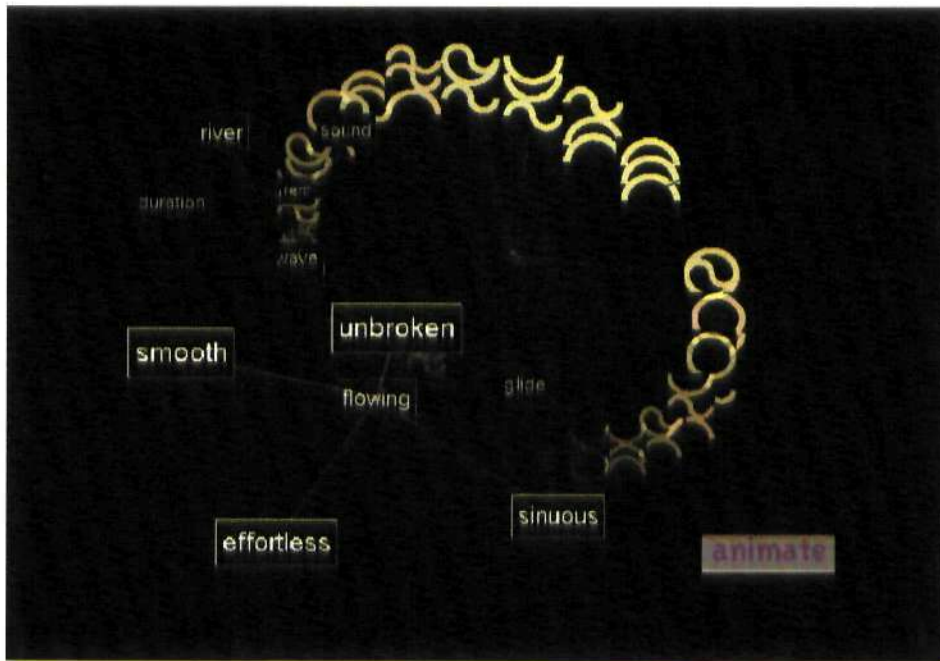


Figure 50: Interface, Glide Lexicon, 2000.

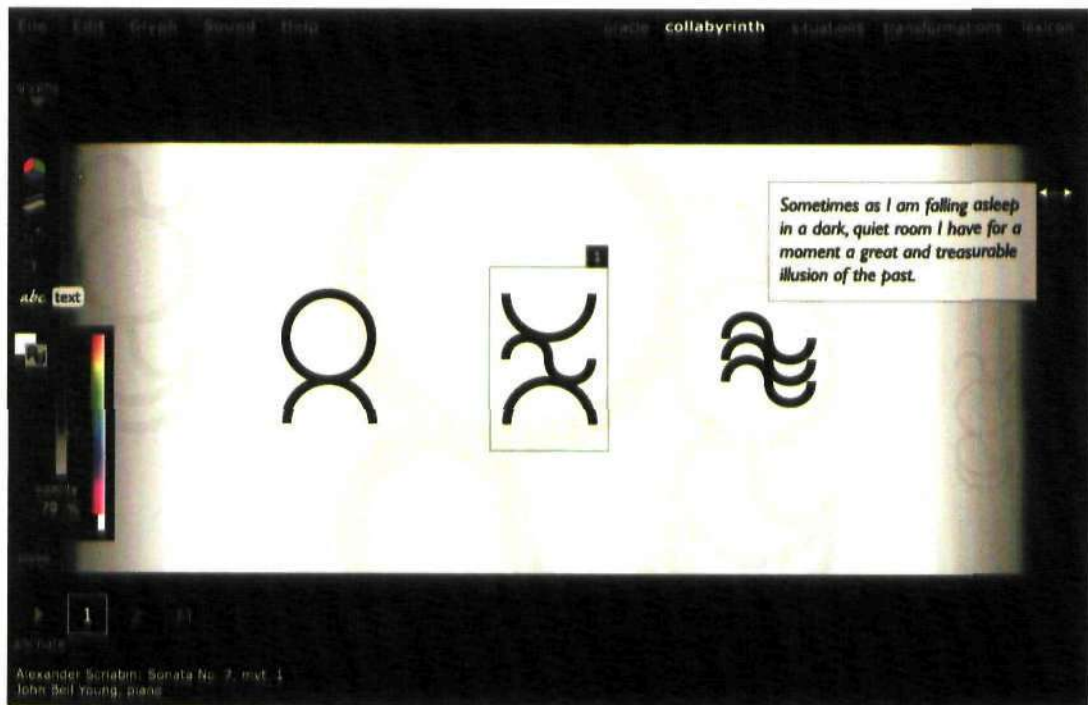
































Figure 51: Interface, Glide Collabyrinth, 2001—2002.

000  pillars grove plentiful	001  rain hill nest	002  cloud lake dew	010  holy embassy rich	011  heart evil responsive	012  light illuminate readable	020  rust fire dark	021  avoid sway fall	022  stem branch supple
100  mountain solidify real	101  mind discrete arcane	102  moon reflect changeable	110  space dark empty	111  gift receive open	112  pride emerge complex	120  lily know intricate	121  star flower radiant	122  line go morning
200  fire emerge intricate	201  spirit revolve line	202  inward strike madden	210  hinged float playful	211  arrow touch roll	212  open distill essential	220  death dancer match	221  sea return deep	222  over change gliding

0 1 2




Dictionary of Glide Glyphs
 core meanings
 numbered and ordered
 with ternary counting system

Figure 54: Glide glyphs, ternary arrangement.



Figure 55: Obsession (fire in the mind).

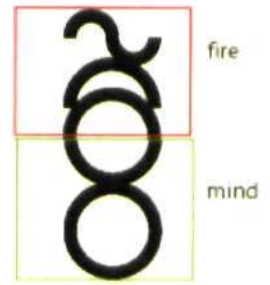


Figure 56: Obsession, delineating the two tri-glyphs.

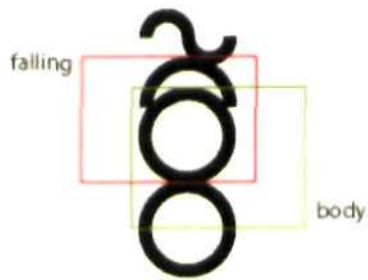


Figure 57: Obsession, showing the two interior glyphs.



Figure 58: Touch or resting link.



Figure 59: Deep or nesting link.

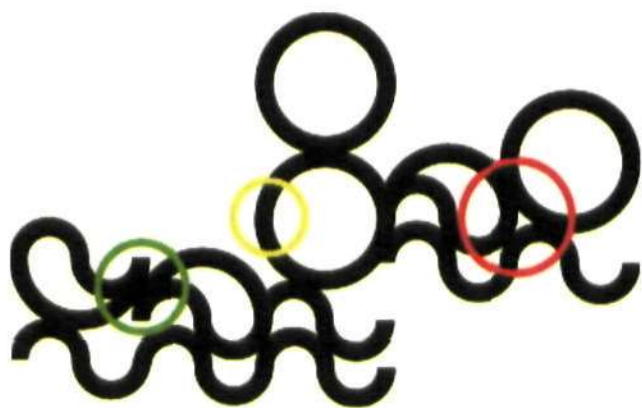


Figure 60: Link variations.

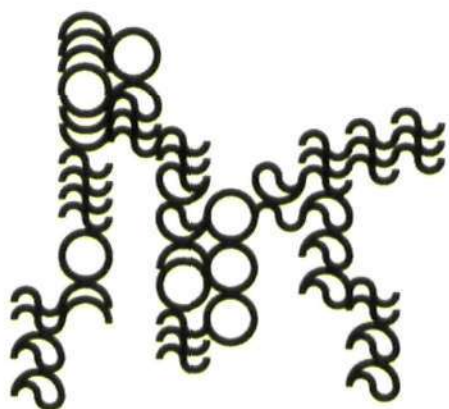


Figure 61: Glide maze.

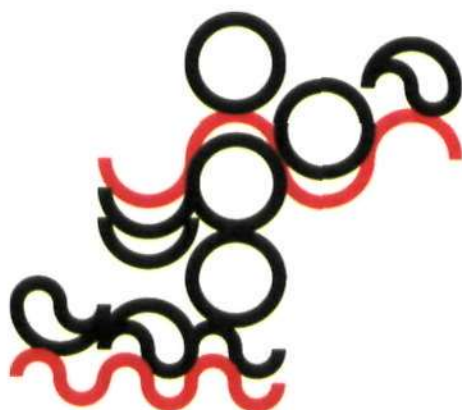


Figure 62: Waves in Glide maze.



Figure 63: LiveGlide Form turning back on it/self.



Figure 64: LiveGlide form expanding.



Figure 65: LiveGlide tunneling through its own form.

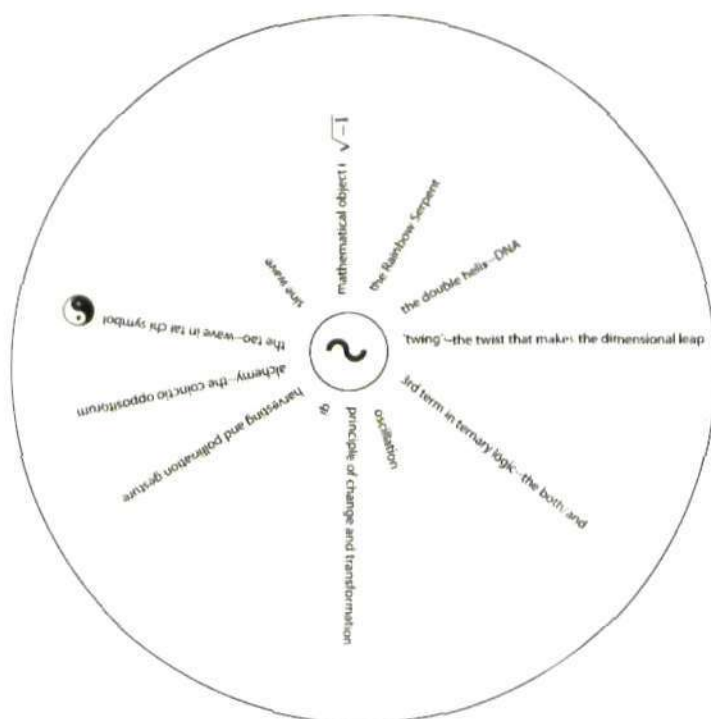
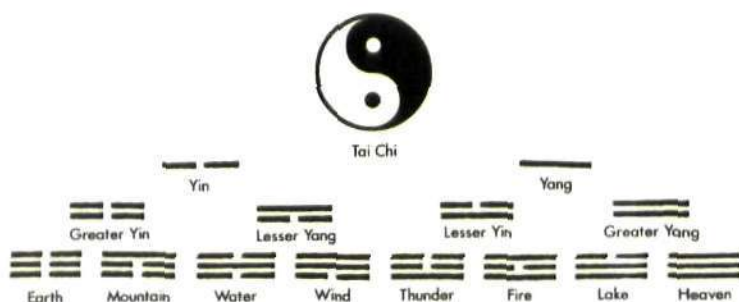


Figure 66: Wave sign as concrescence of concepts in Glide system.



The Eight Primary Gua generated from Tai Chi

Figure 67: The derivation of the Ba Gua from the Tai Chi. From Huang, A. *The Numerology of the I Ching*.

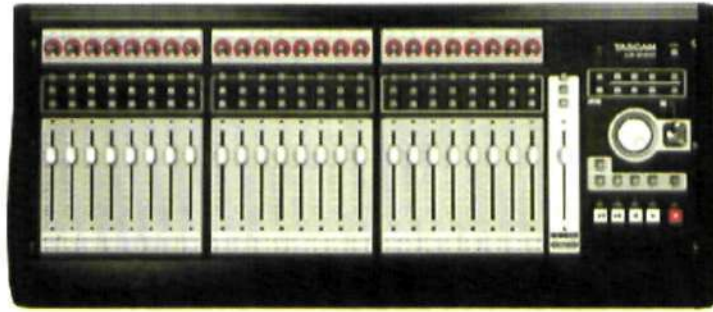


Figure 68: TASCAM MIDI controller. Wii MIDI controller.

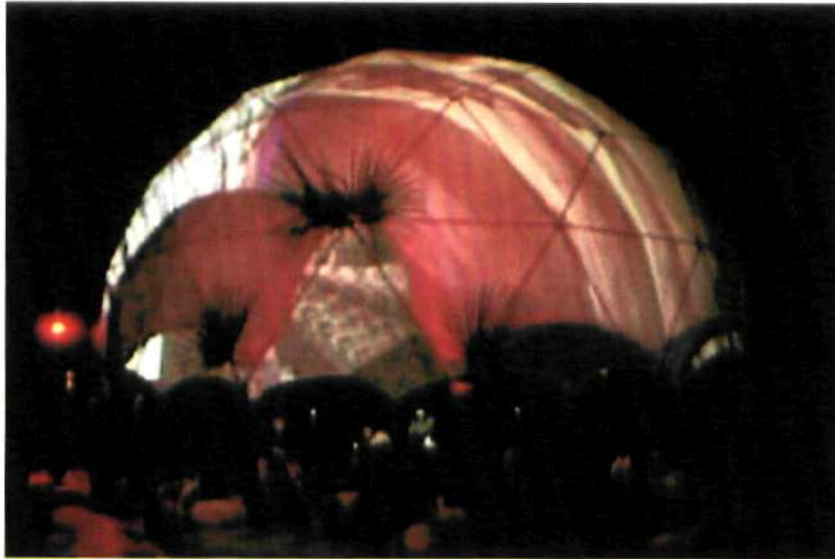


Figure 69: LiveGlide dome performance, Atlantic Center for the Arts, 2005.

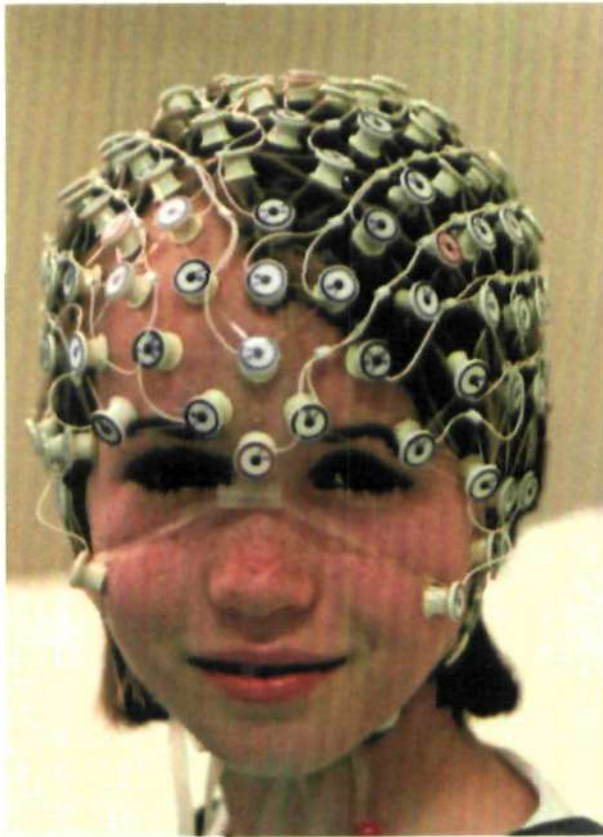


Figure 70: A "mind cap," many sensors reading EEG over the head.

9 Appendix II

DVD, attached to inside back cover of document.

10 Appendix III

Diana Reed Slattery

Publications:

- Book** Slattery, Diana Reed. *The Maze Game*. Kingston: Deep Listening Publications, 2003.
- Book Chapters** Slattery, Diana Reed. "Xenolinguistics I: Aspects of Alien Art," in *Toward 2012: Perspectives on the Next Age*. Eds, Daniel Pinchbeck and Ken Jordan. New York: Jeremy P. Tarcher, 2009.
- Slattery, Diana, "Escrevendo na trilha da quarta dimensão: o modelo *Glide de escrita multidimensional*," in *Redes sensoriais: Arte, ciência e tecnologia*, Contra Capa, 2003.
- Journal Articles** Slattery, Diana. (2009). "Psychedelics: My Problem Discourse." *Configurations, Society of Literature, Science and the Arts*, special issue on Psychedelics.
- Slattery, Diana. (2008). VR and hallucination: a technoetic perspective. *Technoetic Arts*, Vol. 6, No. 1.
- Slattery, Diana. (2008). "How I Became a Xenolinguist." *MAPS*, Vol. xviii, No. 1, Spring issue.
- Conference Papers & Performances** Slattery, Diana. (April, 2010). *Ecstatic Signification: Psychedelics and Language*. *Psychedelic Science in the 21st Century*. San Jose, California.
- Slattery, Diana. (March, 2009). *Xenolinguistics*. The Third Language Creation Conference, Brown University.
- Slattery, Diana. (March, 2008). *Xenolinguistics*. World Psychedelic Forum, Basel, Switzerland.
- Slattery, Diana with Stephan Moore and Kimberly Young. (June 21, 2008). *Xenolinguistics*. Mixology Festival, Roulette, Manhattan.
- Slattery, Diana, Stephan Moore and Scott Smallwood, et. al. (April, 2007). DVD, "Iris". A compilation of video works paired with sound-art by the electronic sound duo, Evidence.
- Slattery, Diana and Stephan Moore. (2006, December). Issue Project Room, Brooklyn, NY. New Year's Eve performance. LiveGlide and Kohleropus II.
- Slattery, Diana. (2006, November). SESC, São Paulo, Brazil. ? F.A.q.: Perguntas Sobre Arte, Consciência e Tecnologia. Burning Man: A Multistate Perspective.
- Slattery, Diana, and DomeWorks ensemble. (2006, October). Schenectady Museum & Suits-Bueche Planetarium. DOMEWORKS: Projection, Reception, & Perception. Video and sound art performance in an outdoor setting.
- Slattery, Diana and Stephan Moore. (2006, July). Issue Project Room, Brooklyn, NY. Performance, LiveGlide and Kohleropus I.
- Slattery, Diana. (2006, July) DomeWorks: Perception, Reflection, and Projection in the Dome of Consciousness, presentation at Consciousness Reframed, *Art and Consciousness in the Post-Biological Era*, Plymouth, England.
- Slattery, Diana. (2006, April), *Perception, Reflection, and Projection in the Dome*

of *Consciousness*, poster session, *Toward a Science of Consciousness*, Tucson, Arizona.

Slattery, Diana and DomeWorks ensemble. (2006, February–May). Club Dome, series of eight performances in the Planetarium of the Children's Museum of Science and Technology, Troy, NY.

Slattery, Diana. (2006, January). DomeWorks DVD. Documenting the Atlantic Center of the Arts residency and performance that initiated DomeWorks as an arts collaborative.

Slattery, Diana. (2005, November). *Psychedelic Science*, panel presentation, Society of Literature, Science, and the Arts, *Emergent Systems and Cognitive Environments*, Chicago, Illinois.

Slattery, Diana and the DomeWorks Ensemble. (2005, July) Premiere Performance of *DomeWorks: The Digital Deep*. Atlantic Center for the Arts, New Smyrna Beach, Florida.

Slattery, Diana (2004, November). *Oracle as Episteme for Complexity: The I Ching and the Glide Systems*. Paper presented at *Consciousness Reframed, Qi and Complexity*, Beijing, China.

Slattery, Diana, Pauline Oliveros, and Stephan Moore (2004, August). *Listening Deeply in A-Maze*. Concert Performance. ISEA 2004, Helsinki, Finland.

Slattery, Diana. (2004, July). *The Noetic Connection: Synesthesia, Psychedelics, and Language*. Paper presented at Siggraph Art Gallery, Los Angeles, CA.

Slattery, Diana. (2004, April) *The Synestheater: LiveGlide in Performance*. Paper presented at Ciberart 2004, Bilbao, Spain.

Slattery, Diana. (2003, May 19 – June 13), *LiveGlide*, installation in Playengines Exhibition, Experimedia, State Library of Victoria, Melbourne, Australia.

Slattery, Diana (2003, October). *Visual Space and the Notion of Dimensionality in New Media*. Panel Presentation at Society of Literature and Science, Austin, Texas.

Slattery, Diana, and Charles Mathis (2003, July). *Interstellar Messaging, Xenolinguistics, and Consciousness: LiveGlide Meets the SETI Enterprise*. Paper presented at *Consciousness Reframed*, University of Wales, Caerleon, Wales.

Slattery, Diana (2003, May) *From Interface to Interspace: LiveGlide and the 3rd Dimension*. Paper presented at the Digital Arts and Culture Conference, RMIT University, Melbourne, Australia.

Slattery, Diana (2003, March). *The Glide Model: Communicating Intention Through Gestural Language*. Paper presented at the S.E.T.I. Workshop on the Art and Science of Interstellar Message Composition, Paris, France.

Yacov Sharir and Slattery, Diana (July, 2002). *The Body Automatic: Visualizing the Real and the Virtual in a High Performance Interactive Dance Environment*. Paper presented for *Consciousness Reframed* conference, Curtin University of Technology, Perth, Australia..

Slattery, Diana (2002, May). *The Glide Project: Modeling the Bootstrap Emergence of Language and Consciousness*. Paper presented at *Subtle Technologies Symposium*, University of Toronto, Toronto, Canada.

Slattery, Diana (2002, June). Panel presentation, *Hypermedia and Multimedia*, ACM Hypertext conference, University of Maryland, College Park, Maryland.

Slattery, Diana (2002, April). Panel participation, *Navigating the Borders - Edges and Interfaces*, ELO State of the Arts Symposium, UCLA, Los Angeles, CA.

Slattery, Diana (2002, April). presentation on *The Glide Project*, and dance performance with Yacov Sharir and Pauline Oliveros. *Technopoetry Festival*, Georgia Institute of Technology, Atlanta, Georgia.

Slattery, Diana. (2001, July—August). *The Glide Oracle*, installation, FILE Electronic Language International Festival, Museu da Imagem e do Som, São Paulo, Brazil.

Slattery, Diana and William Brubaker (2001, February). *Divining the Maze: Using an Oracle as an Interactive Tool for Interpreting Visual Language*. Paper presented at The Ninth Biennial Symposium On Arts And Technology, Connecticut College, New London, CT.

Slattery, Diana, William Brubaker, and Daniel O'Neil. (1999, September) *Mazes and Morphs: Modeling Meaning in Glide, a Non-Linear, Dynamic Visual Language*. IEEE Symposium on Visual Languages, Tokyo, Japan.

Slattery, Diana, William Brubaker, and Daniel O'Neil. (1999, February). *What a Maze Meant, Gliding By*. Paper presented at The Seventh Biennial Symposium On Arts And Technology, Connecticut College, New London, CT.

Invited Lectures

2003, December. Pennsylvania State University, Art Department.

2003, October. Rhode Island School of Design, Department of Digital Media.

2002, April. Emory University, Department of English.

**Fellowships, Awards
and Honors**

Atlantic Center for the Arts fellowship for Domeworks ensemble, under Master Artist, Pauline Oliveros, New Smyrna Beach, Florida.

Vectors Summer Fellowship, "Evidence." Institute for Multimedia Literacy, Annenberg Center for Communication, University of Southern California. Summer 2004.

2003, *ET Phone Home*, animation for cell phone, finalist in RESFEST Digital FilmFestival, Korea.

National Endowment for the Humanities Summer Institute. "Literature in Transition: The Impact of Information Technologies." Led by N. Katherine Hayles. UCLA. Summer 2001.

1994 Not-For-Profit Enterprise of the Year, BarnRaisers, Inc. given by the Capital District Business Review.

Finalist, Flannery O'Conner Award for Short Fiction, 1988.

Finalist, University of Georgia Press Award for poetry, 1988.

Exhibitions

2009, May. 9th Annual Rensselaer Colloquium on Teaching and Learning, Science of Art—Art of Science. EMPAC, Rensselaer Polytechnic Institute.

2001, July—August. *The Glide Oracle*, installation, FILE Electronic Language International Festival, Museu da Imagem e do Som, São Paulo, Brazil.

11 Appendix IV: Contact with the Other— Knowledge Acquisition in the Psychedelic Sphere

An examination of knowledge acquisition in the psychedelic sphere which will take us into the realm of contact and communication with the Other and the shifting construction of the self and Other in the psychedelic sphere is undertaken below. These processes are at the core of the epistemological methods employed in the technoetic practice of psychedelic self-exploration as well as in the design, production and use of digital tools to further the exploratory practice.

Psychedelic plants, animals, and fungi are ancient methods of knowledge acquisition, newly deployed. One might think of them as the original search engines, when using them with the intention to acquire knowledge.

11.1 The Noetic

But this is epistemology experienced as an extreme sport. Tends away from ethics as too fixating though interested in the mechanics of fixation (non-adaptability; rigid belief systems; rigid ego structures as pathological or developmentally disabled noetic practices). Meets ontology at the points where the enfoldedness of knower and known is made manifest. Extended epistemology, if you will, one that wonders why one has that urge to know at all? One longs for knowledge about knowledge and how that drives the evolutionary process. . . I am being welcomed back to the gnosis mycelial network the Gnostic flea market the technology transfer station (the dome) of skills needed to advance knowledge production at many levels and societal interactions (AD_06.06.02 MDMA)

Epistemology presumes not only the desire to know, and the possibility of knowing, but the condition of not-knowing: of knowing that one does not know. In the *Meno*, Socrates treats the paradox inherent in knowledge acquisition:

It is thus impossible for a man to inquire either into what he knows, or into what he does not know. He cannot inquire into what he knows; for he knows it, and there is no need for inquiry into a thing like that. Nor would he inquire into what he does not know; for he does not know what it is he is to inquire into (Plato 1984).

Socrates resolves this paradox, not by a correction of its logic, but by an orthogonal move toward the divine: the postulate that “the soul is immortal, and has been born many times, and has beheld all things in this world and the world beyond, there is nothing it has not learnt. . .” and presents the idea that all learning is recollection.

For since the whole of nature is akin, and the soul of man has learned all things, there is nothing to prevent someone, upon being reminded of one single thing—which men call learning—from rediscovering all the rest, if he is courageous and faints not in the search. For learning and inquiry are then wholly recollection (Plato 1984).

While recourse to the divine, or any form of the supernatural—i.e. knowledge acquired by means other than the analysis of baseline sensory (or natural) data—is not an acceptable epistemological practice in the scientific dispensation, it is certainly *one* of the interpretations of knowledge acquisition in the psychedelic sphere. Shanon describes seven dimensions of the ayahuasca experience, of which the sixth is the spiritual. “Ayahuasca often induces powerful religious and mystical experiences. In general, these are associated with strong noetic feelings (that is, experiences in which one feels that true knowledge is attained)” (Shanon 2002).

Knowing in the psychedelic sphere takes on qualities that distinguish it from knowing at baseline. The noetic quality described by William James as a hallmark of mystical experience, is revelatory; knowledge is not arrived at through analysis of existing material, nor through construction or assemblage of existing knowledge into forms that become “new knowledge.” Knowledge is revealed, arriving with the impact of essential insights, un-arguable, apodictic, given. Shanon associates this kind of knowledge with the strong feeling of connectedness—with other beings, with the world, with plants, with nature, as playing a role in knowledge acquisition. He acknowledges the difficult philosophical issues raised *vis a vis* such forms of knowledge, and their

veridicality. He relates that he asked a form of the question "How do you know. . .that what Ayahuasca made you see is indeed true? Common answers were 'I just felt it,' 'I experienced this as evident. That's it'" (Shanon 2002). For the individual, in the reality level of the noetic connection, the rules of self-evidence take precedence over the rules of evidence.

11.2 Epistemological Rupture

There is an epistemological rupture or break⁷⁰ between levels of reality in the psychedelic experience, each with its own rule-sets, its own episteme. The magnitude of the break is equivalent to the magnitude of difference of experiences at baseline and experiences in the psychedelic sphere.

Launch 8:59 AM

1st step—radically changing sense of body—letting another organizing form—identity—take over and show what is possible—sense of the limbs stretching and retracting—imaging the flows of energy

Ecstatic sensations—can the ascent be described? Physical—running throughout the body very fast now—close eyes and will be gone—thread of language requested given (AD_03.01.04; 2 gm dried Stropharia cubensis)

The magnitude of the *experiential* rupture is easy to mask and tends to be obscured within the normalizing field of natural language—including the language used in the session report it/self.

thread of language requested given

What was occurring was a struggle between the urge of the hand and pen to follow the movements of the rainbow serpent energy and the desire to leave a trace of words in the report. By quoting only the words without the picture, the

⁷⁰ The term was introduced by Gaston Bachelard, who argued that progress in science was made through 'radical discontinuities' such as the break between the world of classical and relativistic physics and that of quantum mechanics.

normalizing effect is stronger, the original strangeness of the experience obscured.

[Appendix I, Figure 2.]

A further normalizing effect occurs, through the contextualizing of these events within disciplinary knowledge, which can additionally obscure the high strangeness of the actual experience.

Now visual just beginning. The multiplying of dimensions—whole body participates—something flooding through—the rainbow serpent swiftly swiftly occupies the space of the body—sound now—so very precise⁷¹—the sound perceived by the body only a small part of “what’s heard”—normal body sight can be recalled—but why? Rising rising—A wild ride ensues—hang on—the rainbow serpent—prayed for care—huge undulation—not only in the body but in whole space-time—felt in body—now—total visual shifts—let go let go new writing of the interstices—writing of the [undecipherable word] where dimensions meet—the funhouse layers—but moving very swiftly—the journey always goes through here—breathe the bejeweled—mauves—touch—everything transformed the feathery the gossamer Glide that’s it let go (AD_03.01.18 3.5 gm dried Stropharia cubensis)⁷²

Rupture becomes rapture.

11.3 Neurobiology and Knowing

When we use the terms “conscious” and “unconscious” in a psychological framework, we are making a statement about knowing. The conscious mind—meaning in this sense ordinary waking consciousness—is where we “know”: a

⁷¹The “sound” is the peculiar identifiable tryptamine “sound” I and others have associated with the psilocybin mushroom. Terence McKenna quotes his brother Dennis’ journal of March 2, 1971 at La Chorrera: “One must take enough psilocybin to allow the sound to be audible. This sound we understand to be the Electron Spin Resonance (ESR) of the psilocybin alkaloids within the mushroom. The presence of rapidly metabolizing high-energy tryptamines within the ayahuasca acts as an antenna that sensitizes the neural matrix to the spin resonance energy of the Stropharia psilocybin. It is this principle that allows the signal to be made audible. McKenna, T. (1993). True Hallucinations: Being an Account of the Author’s Extraordinary Adventures in the Devil’s Paradise. San Francisco, HarperSanFrancisco. T. McKenna describes a “rising tone” with DMT. D. McKenna McKenna, T. K. (1991). The archaic revival : speculations on psychedelic mushrooms, the Amazon, virtual reality, UFOs, evolution, Shamanism, the rebirth of the goddess, and the end of history. San Francisco, Calif., HarperSanFrancisco.

⁷² A connection between the Kundalini serpentine energy phenomena and energy phenomena experienced in psychedelic states has been established by a study by Donald J. deGarcia. deGarcia, D. J. (1995). “Do Psychedelic Drugs Mimic Awakened Kundalini? Hallucinogen Survey Results.” Council on Spiritual Practices Retrieved 12/23/09, 2009, from http://csp.org/practices/entheogens/docs/kundalini_survey.html

phone number, a theorem, or the contents of what James called “the stream of consciousness,” and Bernard Baars calls “the workspace of the mind.” From that, the unconscious is framed as the literally unknown, that which is out of sight of the conscious mind at a given moment. Content can be, as Freud established, very far from consciousness—repressed, and difficult to access. Learning the crypto-language of dreams, active imagination, verbal slips, and psychosomatic symptoms can open the door to retrieval of that content. What kind of content the “unconscious” contains varies greatly depending on the particular theory—Jung’s archetypes of the collective unconscious provide a different map than Freud’s Id, Ego and Superego, or Stanislav Grof’s perinatal matrices (Grof 2000). But the psychotherapeutic distinction of known/conscious and unknown/unconscious is the fundamental dichotomy of psychic life on which the project of many psychotherapies is based: to make the unconscious conscious, with the assumption that the road to psychic health lies in the integration and reconciliation of unconscious content with conscious attitudes.

Michael Winkelman characterizes the psychedelics as psychointegrators as their effect is to link the three main divisions of the brain (Paul MacClean’s model of the triune brain) through their action on the serotonergic system, whose network spans the reptilian (behavioral controls), paleo-mammalian (the limbic system, regulating emotion), and the “chattering monkey brain” or frontal cortex (thinking, problem solving, language).

In this model, the different brains each have their own epistemic constructs, and forms of Self, which Winkelman details.

According to Winkelman, the use of psychedelic psychointegrators, producing ASC and used in conjunction with shamanic ritual practices, confers adaptive advantage on the individual and the community by enhancing human use of the serotonergic and opioid systems through the following activities: human emotional, learning, and perceptual abilities; regulation and

enhancement of perception; perception of novel stimuli; sensory-motor regulation—the integration of behavior with intention; extending our basic bonding capacity (mother-child) to non-kin, and the bonding created in a variety of shamanic rituals; reduction of pain and stress; and enhancement of learning and memory.

Winkelman asks: “When hominids started using these things, how did intuition, how did a sense of connectedness, how did a sense of transcendence of space and time, how did visionary structuralization enhance human adaptation and survival?” Experientially, these psychointegrator substances create one or more of a variety of novel experiences, including a sense of power; the use of those powers to change behavior and affect (psychological healing); journeys to spiritual worlds and other dimensions; a sense of soul; enhanced awareness of environment (more effective hunting due to physiological effects on the lower brain); enhanced social cohesion; the experience of being an animal; death and rebirth experiences, initiatory crisis; healing; altruism; and divination and the acquisition of intuitive knowledge.⁷³

Winkelman foregrounds these physiological mechanisms associated with ASC experiences:

Psychedelics produce synchronized theta waves—[which are] only predominant in ASC's—the circuitry that links the paleo-mammalian brain—the limbic brain and the hippocampus with the reptilian brain—the raphe nuclei and the locus coeruleus; it's serotonergic circuitry. Once this stuff gets going stimulating the autonomic nervous system it then begins to propagate up the neuraxis. What starts in the lower brain eventually gets carried to the frontal cortex. It integrates our unconscious into the conscious and basically provides a synchronized experience in terms of the two halves of our frontal cortex. Most of the time left-brain and right brain are on totally different tracks. And what altered states of consciousness do is not only synchronize the frontal cortex but basically make the frontal cortex pay attention to what's happening in the rest of the brain (Winkelman 2008).

⁷³ Winkelman notes that this list of characteristic shamanic experiences, derived from his cross-cultural studies of shamanism in all parts of the world, map closely to the kinds of experiences provided by psilocybin and DMT. He makes the case from botanical and anthropological studies that psychoactive fungi were used in many cultures worldwide in a shamanistic or ritual context.

The theme of increased connectivity in the brain, increased synchronization of the lobes of the frontal cortex, and the opening of the material of the “lower brains” to the view of the frontal cortex—the picture of the whole brain functioning together in conscious awareness—and the theme of the noetic experience in ASC are, at least in broad brushstrokes, brought together.

Horace Beach, in his 1996 dissertation, *Listening for the Logos: A Study of Reports of Audible Voices at High Doses of Psilocybin*, presents a quantitative study of the phenomenon of the speaking voice, with mention of the phenomenon occurring under the influence of other drugs as well. His data showed that nearly 40% of those who had taken high dose psilocybin had an experience of voices. While his data does not support the idea that hearing voices is a predominantly psilocybin phenomena, a majority of his survey participants indicated that they first heard the voice with psilocybin. This experience showed no gender correlation. Being alone enhanced the possibility of the experience, as did growing one’s own mushrooms (Beach 1996).

11.4 Self and Other

Je est une autre.

–Rimbaud

The concept of self—whether closely examined or naively assumed—is essential to most accounts of consciousness: philosophical, scientific, or religious. These self-concepts vary greatly across and within disciplines. Altering one’s state of consciousness can profoundly destabilize the experience of self, and hence the self-concept of ordinary states of consciousness (Tart 1972; James 2002; Shanon 2002). The concept of self is inextricably connected to the concept of the Other, the dichotomy of subjective and objective, observer and observed, and, following James, the knower and the known. In consciousness studies, self-other is assumed as a stable, if not universal, category (Baars 1997);

the discussion and use of first and third person methods in the study of consciousness assumes this stability.

The question of the Other is the question of how we experience, then frame and interpret the phenomena of the felt/perceived presence of an Other or others in ASC. The Other appears in the psychedelic sphere in a plethora of forms, among them plant teachers such as ayahuasca and magic mushrooms (de Rios 1984; Wasson, Kramrisch et al. 1986; McKenna and McKenna 1993a; McKenna 1993b; Narby 1999; Doyle 2010); alien contact (Leary 1973; Lilly 1979; McKenna and McKenna 1993a; McKenna 1993b); the shaman's spirit guides and animal and plant allies; angels and demons; and felt presences. Often this dialogue with the Other is concerned directly with teaching, and the acquisition and transmission of knowledge. Shanon asks, "What does it mean that a plant conveys knowledge? What is the status of the knowledge that is presumably achievable through the consumption of psychoactive plants?" He connects this quest for knowledge in the psychedelic sphere with the mythical search for the Tree of Knowledge, as does McKenna (1992b).

My own artistic practice is deeply informed by these monologues, dialogues and multilogues with the Other during psychedelic self-explorations. These conversations are recorded linguistically in the ADs and reflected visually in the LiveGlide video practice. [Appendix II, Items 4—7.] These multi-state and multi-purpose interactions with the Other are an integral part of the technoetic practice. The evolving dialogue with the Other will be reflected on below and situated within the literature of encounters with the Other.⁷⁴

⁷⁴ The following sections contain several long quotes, in the spirit of James' "*document humain*," letting the experiences speak for themselves, rather than paraphrasing or "sound-biting" this topic that is central to the thesis.

11.5 Transformations of Self and Other

The transformations of self and other in ASC, and the intermixing of their forms in many degrees of merging, is a broad topic worthy of a thorough treatment beyond the purview of this thesis. The intention in this section is to present several examples, a rough-hewn chrestomathy, to give a sense of the cross-cultural ubiquity of the phenomena, to indicate the connection between self and the Other in knowledge acquisition.

The shaman's relationship to the world of spirits as the source of their knowledge and power is world-wide; they are the professionals, "technicians of the sacred" in Jerome Rothenberg's phrase, the practitioners of ecstatic pathways for knowledge acquisition (Rothenberg 1985). Contact with entities becomes the pre-requisite of the shaman's vocation. Eliade discusses

the extreme importance of "spirit visions" in all varieties of shamanic initiations. "Seeing" a spirit, either in dream or awake, is a certain sign that one has in some sort obtained a "spiritual condition," that is, that one has transcended the profane condition of humanity. (Eliade 1964)

Eliade quotes an Australian shaman of the Yaralde tribe, "However, some of them are evil spirits, some are like snakes, some are like horses with men's heads, and some are spirits of evil men which resemble burning fires." Those are the spirits of the dead, the spirits one must learn to confront fearlessly in the ASC. There are categories and types of spirits that the shaman learns to negotiate with; out of a heavily populated visionary realm, he or she establishes their own set of relationships. And the study of the anthropology of shamanism worldwide shows that each tribe has its own taxonomy of the spirit realm to which its members as well as its shaman relate.

We said above that a relation of "familiarity" is established between the shaman and his "spirits." And in fact, in ethnological literature they are known as "familiar," "helping," "assistant," or "guardian" spirits. But we must distinguish carefully between familiar spirits proper and another and more powerful category of spirits known as tutelary spirits; so too, a distinction must be made between these last and the divine or semidivine beings the shamans summon up during séances. A shaman is a man who has immediate, concrete experiences with gods

and spirits; he sees them face to face, he talks with them, prays to them, implores them—but he does not “control” more than a limited number of them. Any god or spirit invoked during a shamanic séance is not by that fact one of the shaman’s “familiar” or “helpers.” (Eliade 1964)

Winkelman develops the idea of the complexity of “a variety of selves” in his cross-cultural study of shamanism.

Shamanism developed as a tradition for constructing, manipulating, and using a variety of selves for psychological and social integration. Although the self has seemed a relatively unproblematic concept to many, the nature of personal identity is much more complex when examined in a cross-cultural context, particularly in the context of shamanism, possession, and the mythological systems within which they are interpreted. The numerous forms of self-referential systems found in mythology provide for polysemic representation. The process of mirroring plays a fundamental role in utilizing these systems to provide the template for self from these systems. This is based in a common auto symbolic, or self-specifying system, and is manifested in the sense of recognition of other, a presence. This notion of felt presence, the sense of self in the unknown other, is a manifestation of the plural symbolic capabilities of the creature in an attitude of openness toward the environment (Hunt 1995a). This is the basis for the concept of animism, the spirit entities widely viewed as a primitive of religion. This sense of “self in other” is manifested in the use of the disembodied self as a model of the unknown other, providing a basis for relations with the spirit world and others (Winkelman 2000).

Winkelman, referencing Hunt (1995), gives a description of shamanic methods as the management of multiple selves, “a variety of selves,” and interprets this phenomenon as “a manifestation of the plural symbolic capabilities of the creature,” implying a mental or intra-psychic origin of the phenomena of “the felt presence, the sense of self in the unknown other.” Interpreting the phenomena of multiple selves as essentially self-generated is to come down on one side of the question of the ontological status of entities, a question which arises for the psychonaut who is not embedded in a cultural tradition, such as shamanism, in which these phenomena are routinely experienced, and interpreted as originating “outside” the individual. From the perspective of the shaman and his/her culture, “animism” is an experience, not a “concept.” For the DIY-oriented psychonaut, the question is wide open, and the refrain is repeated, as in Butch Cassidy and the Sundance Kid: “Who are those guys, anyway?”

From the teafaerie, posted on Erowid, a discussion of the problematic:

Occam's razor says it's just us. Or, to use a slightly duller blade, maybe it's the collective unconscious or something. . . On the other hand, you know, the psychedelic experience can be quite convincing. It sometimes feels "realer than real" in a way that's hard to get across to the straights. The resolution can be better than we're used to in Physicsland. More importantly, it can come with a conviction of primacy that is hard to refute. Psychedelics can suspend the faculty for critical analysis, and something patently ridiculous can register as absolutely and obviously true. It can seem to me like I suddenly remembered all the secrets of the universe and I've always known about the entities and this is the most important and primary thing that has ever happened to me. Then they say something really really silly and I'm left feeling extremely confused. . . Sometimes I deal with psychedelic entities at face value, too. I've experienced reality diced many ways, and if I can establish an I/thou relationship with an information field I'm pretty stoked about it, because that's much more comprehensible and useful to me than some of the more arcane alternatives. I tend to behave relative to such entities exactly as if they were what they appear to be and consider myself lucky to have whipped up such a useful interface for my poor little monkey brain to work with. It's probably quite literally the closest thing to the truth that I can imagine. I don't Believe it for a minute, though. I try really hard to stay fluid (Teafaerie 2009).

Terence McKenna relates a similar disorientation where the numinous hyperreal contact experience of seeing a flying saucer materialize in the sky over La Chorrera contained its own tag marking it "fake."

The siren sound was rapidly gaining pitch, and in fact, everything seemed to be speeding up. The moving cloud was definitely growing larger rapidly, moving straight toward the place where I was. I felt my legs turn to water and sat down, shaking terribly. For the first time, I truly believed in all that had happened to us, and I knew that the flying concrescence was now about to take me. Its details seemed to solidify as it approached. Then it passed directly overhead at an altitude of about two hundred feet, banked steeply upward, and was lost from sight over the edge of the slope behind me. In the last moment before it was lost, I completely threw open my senses to it and saw it very clearly. It was a saucer-shaped machine rotating slowly, with unobtrusive, soft, blue and orange lights. As it passed over me I could see symmetrical indentations on the underside. It was making the whee, whee, whee sound of science fiction flying saucers. . . I saw this thing going from being a bit of cloud to being a rivet-studded aircraft of some kind. Was it more true to itself as cloud or aircraft? Was it a hallucination? Against my own testimony can be put my admitted lack of sleep and our involvement with psychedelic plants. Yet curiously this last point can be interpreted in my favor. I am familiar through direct experience with every known class of hallucinogen. What I saw that morning did not fall into any of the categories of hallucinated imagery I am familiar with. Yet also against my testimony is the inevitable incongruous detail that seems to render the whole incident absurd. It is that as the saucer passed overhead, I saw it clearly enough to judge that it was identical with the UFO, with three half-spheres on its underside, that appears in an infamous photo by George Adamski widely assumed to be a hoax. . . My stereotyped, but already debunked, notion of a UFO suddenly appears in the sky. By appearing in a form that casts doubt on itself, it achieves a more complete cognitive dissonance than if its seeming alienness were completely convincing. (McKenna 1993)

This open, ontological ambiguity regarding entities is presented in a different fashion in the case of Yaminahua shamanism, as reported by Graham

Townsley. In the reality of *yoshi*, the spirits or animate essences that animate all things in the world, including humans, a clear operational primacy exists:

Shamanic knowledge is, above all, knowledge of these entities, which are also the sources of all the powers that shamanism claims for itself (Townsley 2001).

The Yaminahua model of the human being, embodies *yoshi* at its core:

In their notion of the person, the Yaminahua have a simple tripartite scheme: a body; a social, human self associated with reason and language; and an animate, perceiving self which is neither social nor human, mingling easily with the non-human *yoshi* who are beings of the same type. It can be seen, then, how the Yaminahua have no notion of anything that would approach our idea of "mind" as an inner storehouse of meanings, thought, and experience quite separate from the world. All that is "mental" is the property of entities which, although closely related to particular bodies, are not permanently attached to them. It is through the relationship between these two entities that the whole area of Yaminahua thought about the sameness and difference between the human and non-human develops. And as should be clear by now, it is through the idea of *yoshi* that the fundamental sameness of the human and the non-human takes shape, creating the space for the animal transformations of the human and the attribution of mental and human characteristics to all aspects of nature (Townsley 2001).

These ambiguities are enacted in the Yaminahua shaman's use of secret and highly metaphorical language expressed in song, *Tsai yoshtoyoshto* or "twisted language," an indirect way of approaching an ambiguous subject:

With my *koshuiti* I want to see—singing I carefully examine things—twisted language brings me close but not too close—with normal words I would crash into things—with twisted ones I circle around them—I can see them clearly (Townsley 2001).

In the communication of the unspeakable through metaphoric language that only the shaman can understand, the visionary experience is brought into greater clarity.

London psychonaut, Gaia devotee, filmmaker and musician Simon Powell comes down on the far side of the "internal/external" dichotomy invoked by the phenomenon of the Other. His report of a visit to the Royal Botanical Gardens at Kew to do "some perceptual fieldwork" follows. We are entering the discussion of the plant teachers; in this case the plant teacher psilocybin opens the gate to a teaching from other plants.

What transpired within remains highly personal and largely incommunicable bound as I am to the limits of the English language. Suffice it to say that I was under the uncanny impression that some communication of information occurred between myself and the tropical plant life. It was as if the dense green slowly moving plant network around me was a place where occult aspects of the Gaian system 'flowed' strongly, a good place to "tune in" to the Ultimate Organism.

The informational communication definitely stemmed from outside my ego, in that I encountered streams of revelatory thought. As ever, I cannot possibly infer that this phenomenon was a production of my unconscious, for I cannot believe that such diverse, creative, and intelligible information can arise from a personal unconscious unless of course the unconscious is itself part of some intelligent presence connected with Gaia. That a vivid communication of information can flood the psilocybinetic brain is the goal of the neo-shamanic enterprise, for it rests upon this experience of contacting the Other, an organized intelligence of some kind that is not 'us'. If for the sake of argument, we still maintain that the Other is identifiable with the unconscious, then entheogens demonstrate that the unconscious is not confined to the individual. It is rather the case that the unconscious (if we call it that) must transcend the dimension of the personal psyche. When you talk to someone, read a book, or see a movie, then you know for sure that the information being accessed could in no way have come from your own psyche, that it was put together from some other source of intentional intelligence (i.e. the psyche of the other person). This is exactly the feel of the psilocybin experience, that a transcendental Other has been accessed (Powell 2008).

Powell concludes that the Other is truly *other*; he knows in the psychedelic realm that this is truly an Other by reference to how he knows his baseline, ordinary life experience of others. Terence McKenna, who has entertained many hypotheses of the identity of the Other, holds the standard of being able to identify, in the content of the experience, what clearly could not be "his idea."

Further interpretations from Ralph Abraham, Rupert Sheldrake, and Terence McKenna, summarized by McKenna, of the phenomena of "discarnate entities":

The human mind is haunted both by the many presences sensed within the self and by a confused sense of self. Wherever we turn in the world of nature and the psyche, we encounter life, animation, and a willingness to communicate that confounds the fragile pyramid of boundary consciousness and human values that have emerged over historical time through the suppression of our intuitions.

I've taken the position that these entities we encounter are nonphysical and somehow autonomous. Ralph, as I understand him, accepts this view but anchors it into the Neoplatonic trinity of body, soul, and spirit. From this point of view, these entities are inhabitants of the spiritual domain of the logos. They are the logos become self-reflecting and articulate. Rupert correctly points out that it's in the realm of dreams that we most commonly encounter entities, and he further suggests that behind these entities is the controlling agency of the world soul. His notion is that the world soul actually communicates to human beings through the

production of forms that we interpret as the denizens of an otherwise invisible and mythological world.

Our collective conclusion seems to be that nature, both in whole and in many parts, is magically self-reflecting and aware. Encountered in its most rarified expression, the world speaks to us, and we, as scientific rationalists are confounded. Nevertheless, it is for us to mold our models and theories to the world as it presents itself in immediate experience, not as we would have it in some grand and sterile abstraction. The elves and gnomes are there to remind us that, in the matter of understanding the self, we have yet to leave the playpen in the nursery of ontology (Abraham et. al., 1992).

Anthropologist Henry Munn's account of Maria Sabina and other Mazatec curanderos' psilocybin curing practices puts emphasis on the release of eloquence associated with the mushroom intoxication, and the relation between the speaking and the curing.

"It is not I who speak," said Heraclitus, "it is the logos." Language is an ecstatic activity of signification. Intoxicated by the mushrooms, the fluency, the ease, the aptness of expression one becomes capable of are such that one is astounded by the words that issue forth from the contact of the intention of articulation with the matter of experience (Munn 1973).

Maria Sabina was the Mazatec curandera who allowed Amateur mycologist Gordon Wasson to participate in a mushroom ceremony. Wasson subsequently published an article in the May 13, 1957 issue of Life Magazine, which introduced "magic mushrooms" to the world, and brought an influx of Americans to the remote villages of the Mazatec community.

One of the Principal Ones spoke to me and said: 'María Sabina, this is the Book of Wisdom. It is the Book of Language. Everything that is written in it is for you. The Book is yours, take it so that you can work' (Munn 1973).

Munn recorded the words of several curanderos in his study.

I am he who speaks. I am he who speaks. I am he who speaks with the mountains, with the largest mountains. Speaks with the mountains, says. Speaks with the stones, says. Speaks with the atmosphere, says. Speaks with the spirit of the day." For the Mazatecs, the mountains are where the powers are, their summits, their ranges, radiating with electricity in the night, their peaks and their edges oscillating on the horizons of lightning. To speak with is to be in contact with, in communication with, in conversation with the animate spirit of the inanimate, with the material and the immaterial. To speak with is to be spoken to. By a conversion of his being, the shaman has become a transmitter and receiver of messages.

And the different places are inhabited by presences, by indwelling spirits, the gnomes, the little people. "Gnome of Cold Water, says. Gnome of Clear Water, says. Gnome of Big River, says. Big Gnome. Gnome of Burned Mountain. Gnome

of the spirit of the day. Gnome of Tlocalco Mountain. Gnome of the Marking Post. White Gnome. Delicate Gnome."

The Mazatec medicine men are therefore shamans in every sense of the word: their means of inspiration, of opening the circuits of communication between themselves, others, the world, and the spirits, are the mushrooms that disclose, by their psychoactive power, another modality of conscious activity than the ordinary one (Munn 2000).

Marcelo Mercante's dissertation on the Barquinha religion, the smallest of the Brazilian syncretic ayahuasca churches that use the Daime (ayahuasca) as a sacrament, includes his many accounts of *miração*, the visions brought to practitioners, and reveals the complex system of relations with another taxonomy of spirits that blend spiritual identities from three traditions:

It is important to mention one more thing concerning the different qualities of spiritual beings working through mediumship at the Center. They can be divided into several spiritual currents. The first is the Christian current, where belongs the *Missionários* (bishops, friars, priests). The second is the African current, where the *Orixás* are the main representatives. In fact, I was told by different spiritual guides, that the *Orixás* themselves do not incorporate but send their knights to the mediums. The third current is of Nature Beings, the Amerindian current, where we find the *Encantos*⁷⁵ (fish, mermaids, botos, alligators, snakes, eagles, fairies, etc., all receiving the titles of princes, princess, king, or queen). There are as well, two intermediary currents. Between the Christian and the African currents, we have the *Pretos-velhos* and *Pretas-velhas*, and between the African and the Amerindian currents we have the *Caboclos*. In fact, the *Pretos-velhos* and *Caboclos* can migrate throughout all those currents (Mercante 2006).

Mercante points out that everyone at the Barquinha is potentially a medium, though some incorporate the spirits and others do not. The transactions with the spirits are not limited to the actions of a priest or shaman, but democratically distributed among the congregation. And the sacramental Daime, the plant teacher, is at the heart of the Barquinha:

There is no teacher in the Barquinha other than Daime itself. As the light enlightening every consciousness, as the main element to contact God, as the main tool for self-knowledge and self-development, and, above all, as the light of God itself, the Daime cannot be completely explained (Mercante 2006).

11.6 The Other as Alien

Psilocybin "speaks." The speaking voice of psilocybin is absolutely extraordinary. DMT combines the speaking voice and the seeing eye—the most extraordinary thing about the DMT experience is that you see entities. You encounter beings whom I've

⁷⁵ Literally, the enchanted ones.

described as self-transforming machine elves. They are denizens of this other dimension. They are trying to teach something. Well, if I'm not completely mad, then it's big news. Straight people—skeptical people—if given DMT will be conveyed to what is essentially the hall of the Mountain King with gnome revelry in progress. We're not prepared for this. We expect everything to fall into the rational maps that science has given us, and science doesn't describe a hyperdimensional universe teeming with alien intelligences that can be contacted within a moment if you have recourse to a certain chemical compound. Science is hard-pressed to admit that light-years away, there might be beings living on planets in orbit around another star (McKenna, 1992a #2).

The Other has appeared in the guise of the extraterrestrial in the reports of contemporary psychonauts, with Terence McKenna as a leading reporter, though the characterization of the Other as "alien" remained an open question for him. He has characterized the psilocybin voice variously as the voice of the mushroom, with the mushroom being an extraterrestrial; the voice of the Logos; or the voice of the planetary Oversoul, or Gaia (McKenna, 1986 #704; McKenna, 1992a #2; McKenna, 1993 #144; McKenna, 1993a #683).

... the nature of the archetype is being set now in the light of scientific knowledge concerning other intelligence in the universe. It's a combination of our need for connection and science giving its blessing to this form of expression of that need that is creating the potential phenomenon of alien love. We don't know what the Self is; Buddhism says that everything is bodhi-mind; that means that there could be extraterrestrials, and if it's true that everything is bodhi-mind, they too are an aspect of the Self. The word "Self" is as great a mystery as the word "Other." It's just a polarity between two mysteries and then the thin, thin myths that are spun to hold you suspended there without freaking out. The myths of science and religion and shamanism all represent a polarity between the mystery of the Self and the mystery of the Other—and remember a mystery is not to be confused with an unsolved problem; a mystery is by its nature mysterious and will not collapse into solution. We are unfamiliar with that kind of thing. We think that if there's a mystery, then experts of whatever kind can get it straightened out and issue a report. But this approach only works for trivia. And what's important—our hearts, our souls, our hopes, our expectations—is completely mysterious to us. So how must they appear then, to the Other, if it truly is Other? (McKenna, 1992a #2).

As our imagination has striven outward to attempt to encompass the possibility of the intelligent Other somewhere in the starry galaxy, so has the Other, observing this, revealed itself to be among us, when we are in the psilocybin trance, as an aspect of ourselves. In the phenomenon of *Stropharia cubensis*, we are confronted with an intelligent and seemingly alien life-form, not as we commonly imagine it, but an intelligent alien life nevertheless (McKenna 1993).

The visionary encounter with the other—whether catalyzed by psychedelic substances or “on the natch”⁷⁶ (which can include a variety of psychospiritual methods—many more extreme in their duress on the body-mind than, say, five gm. dried *Stropharia cubensis*—such as fasting, physical ordeals, prolonged isolation, and sleep deprivation) tend to clothe the Other in the symbolic forms in which we are culturally embedded. For the contemporary psychonaut, woven into the Web, and mainlining Google for an instantaneous fix-on-demand on the majority of symbolic systems cross culturally derived, the symbolic figures with which the Other may present it/self exhibit great variety. Further, the same visionary presentation—in this case, the Other as alien—can be interpreted in a variety of ways back at baseline. The Other as alien can be seen as an emerging global mythologem imbricated with our rapid technological development as a species, especially in the last 100 years. Jung was fascinated with the phenomena as early as 1946; his interpretation is archetypal, though he leaves the door open to the interpretation of real hardware in the skies. He also notes that the “visionary rumours” of circular lights in the skies go back in history; he cites two sightings, recorded in words and woodcuts, known as the Basel Broadsheet of 1566, and the Nuremberg broadsheet of 1561.

[Appendix I, Figure 3]

Jung offers a psychological interpretation of the circular formations as mandala-like symbols of the Self as a striving for wholeness rising from the unconscious into consciousness, an essentially spiritual impulse from our deepest sources.

⁷⁶ Much discussion has been generated as to the “validity” of the visionary experience when catalyzed by a psychedelic material as opposed to by “natural” means, as above. Meditation, yoga, fasting, pain, sleep deprivation, all night dancing each obviously produce physiological changes as well. The question remains: what is “natural” when it comes to changing one’s mindstate?

If we try to define the psychological structure of the religious experience which saves, heals, and makes whole, the simplest formula we can find would seem to be the following: in religious experience man comes face to face with a psychically overwhelming Other. (Jung 1978).

McKenna hovers between interpretations as he follows the *what-if* logic of the tryptamine encounter with extraterrestrials as "actual contact" in his essay *Alien Love*. "What-if" this phenomenon were "real?" Again, the appeal is to the rules of self-evidence:

In the Amazon and other places where plant hallucinogens are understood and used, you are conveyed into worlds that are appallingly different from ordinary reality. Their vividness cannot be stressed enough. They are more real than real. And that's something you sense intuitively. They establish an ontological priority. They are more real than real, and once you get that under your belt and let it rattle around in your mind, then the compass of your life begins to spin and you realize that you are not looking in on the Other; the Other is looking in on you. This is a tremendous challenge to the intellectual structures that have carried us so far during the last thousand years. . . These are just historical contexts that can be transcended only by the acquisition of gnosis, knowledge that is experienced as self-evidently true. (McKenna 1991)

McKenna argues that

Science, by clarifying the nonuniqueness of biology and giving us an idea of what's going on in the galaxy and beyond, has validated the notion that life is ubiquitous and that intelligence is a property that accompanies life and is probably common in the universe. This legitimates fantasy about the existence of extraterrestrial intelligence. In the last half of the twentieth century, the mythological outlines of what the alien must be are being cast. (McKenna 1991)

Certainly we have seen science fiction, the texts of the emerging mythologem, migrate from a pulp fiction status to radio, then television, with the mass audience increasing as sci fi's production values soar with technological advances in 3D modeling and motion-capture animation making possible the actualization of increasingly visionary worlds.⁷⁷

⁷⁷ The iMAX 3D blockbuster movie *Avatar*, reportedly the most expensive movie ever made, gives us one of our first adult-human-meets-alien love stories. More accurately, it is a Na'vi meets alien (the human) love story. Was the first movie of alien love Spielberg's childhood innocence of *ET* love with human children? *Avatar* follows close on the heels of *Battlestar Galactica*, where human—alien-in-the-form-of-robots love is explored in a variety of intense relationships. And there's an important twist: the aliens in *BSG* are the direct products of human creation—come back to haunt us: first, in rebellion, then in love experiments which in some cases become genetic melding. In *Avatar*, we humans have created not only a working meat body that duplicates the alien Na'vi's biology, melding the human in, but the technology to download a human

Public expectations are casting the extraterrestrial archetype into a mold that it will hold until it is confirmed or denied by true extraterrestrial contact, whatever that means. We now know enough to fantasize realistically about what an alien might be like, and this sets up polarities in the collective psyche that previously we have seen only at the level of the individual. What the developing archetype of the extraterrestrial "Other" means, and the source of our fascination with it, is that, collectively, for the first time we are beginning to yearn. . . what is driving religious feeling is a wish for contact—a relationship to the Other. The alien then falls into place in that role; the alien fulfills us. . . It's as though by passing into the psychedelic phase—the spacefaring phase—the entire species were passing into adolescence and becoming aware of the possibility of something like a sexual completion with an Other, with an intelligent, non-human species. . . One dimension of the culture crisis is a collective erotic drive for a connection with the Other. . . it is androgenous, hermaphroditic, transhuman; it is all these things that the unconscious chooses to project upon it until we have enough information to define what it might actually be for itself. Eventually this contact will occur. We are now in the pubescent stage of yearning, of forming an image of the thing desired. This image of the thing desired will eventually cause that thing to come into being. In other words, our cultural direction is being touched by the notion of alien love, and it comes to us through the rebirth of the use of plant hallucinogens. The shamanic vision plants seem to be the carriers of this pervasive entelechy that speaks and that can present itself to us in this particular way. . . We have embarked on the exploration of a unique historical opportunity in which for the first time the issue of the Other is being fully constellated and dealt with by the species. The question is being asked, "Are we alone?" and though we now focus on that question, we need to think beyond that to what if we are not alone. Then what becomes the next imperative question? It is obviously the exploration of the relationship to the Other, part of which has an erotic character (McKenna 1991).

To alien abduction narratives, we must add alien seduction as an equally powerful construction.

The plant spoke to me of what I was going to do. In the form of very pretty waves. . . But it was something along the lines of communication. I had heard stories about the jealousy of plants, and there was something like that here, that said: "Listen, we have good communication and are getting along well. If you go with someone else, you are going to have another kind of communication. You are free to do it but you are going to break what we have together. Is this what you really want? So the I, the bashful lover, said: "No, no," I canceled the rendezvous with iboga, and now I am vigilantly weaving a beautiful love relationship with ayahuasca. If I am telling this story, it is just out of respect for love, desire. . . We see that this plant is intelligent. When it enters into contact with you, there are two of you. Sometimes she gives me a very unsexy spanking over a trifle, but she loves me and I love her. *(Narby 2008)

From the Vaults of Erowid, a 3 gm. psilocybin experience report somewhat similar in content to alien abduction (non-drug) experiences, but of a different tone. Abduction scenarios are often full of terror, paralysis, and the feeling that

consciousness into that body while the "real" meat body is parked in what could be mistaken for a upgrade on Lilly's Samadhi (sensory attenuation) tank. In Avatar, the humans are the evil aliens, as one's viewpoint shifts with the leading man Jake Sully's to a Na'vi viewpoint.

the intent of the aliens is not benign. But the theme of alien operations on the human body is similar:

As I laid there on the bed, with my eyes closed I was being shown beautiful fluorescent worlds, of different hues like reds, blues, purples and yellows. The imagery was mostly lined which formed amazing psychedelic visions. I couldn't believe the amount of visions I was getting. So strange and alien they were. I could tell I was seeing glimpses into possibly another dimension. The forms were always changing in imagery and colors. They were absolutely beautiful and felt very Sacred. This felt like total liberation for the spirit and it made me grin the whole time. I felt very grateful and thankful of the mushroom for letting me see into other realms of the universe. We rolled a couple joints that night of potent cannabis that we passed around and smoked. About two and a half hours into our journey, I realized something very strange and startling. Merc and our other friend were having a conversation with one another in the corner of the room. As I was sitting comfortably on the bed, I had noticed that besides my two friends and I, we weren't alone. I noticed three bodies or silhouettes doing something to me, or my head. Now let me explain in detail how these beings came across. I have had many psychedelic experiences of contacting alien beings from other dimensions but all of the beings I have encountered before had a physicality to them. That they were made of physical bodies. These three beings however, didn't have a physical body. Instead, they were made of a fluid-like ethereal shadow that diffused in and out of sight within the holographic nature of empty space. It seemed as if what I was seeing was their spirit bodies and their physical bodies were possibly somewhere else in the universe. Although they lacked physicality I could still make out of soft edges of what their bodies looked like. They were not spirits from this world but definitely alien. It was an alien encounter like no other and I'm still, after about a month after in awe of what actually happened. These things were definitely separate from my imagination. They moved at their own will and possessed knowledge that is way ahead of our own. I am also certain that I am not the only person that has experienced these kinds of aliens as their attention was very much focused on the human agenda. But what were they doing to my brain? (Plasmomorphing 2008).

A 10 mg 4-HO-MiPT trip report on Erowid from green rapture, where the alien is experienced as a sonic entity:

Instead of anything I expected, I was being mentally, sonically probed by spirits/aliens/ancestors. I was at their mercy, being completely consumed by their awesome power and intellect. They moved through my mind as beings of pure sound and awareness, pushing at every wall and piece of resistance, creating more and pathways through it. My mind was rushing outwards, expanding into the cosmos. In a space of mostly pure white light, I coiled and stretched at these beings will. I did not resist outside of my utter shock as to the intensity of the experience and the beings unbelievable intellect. At some point I thought about turning off the cd to disconnect from the drumming interface of contact...but I felt pretty certain that if I were to suddenly be without guidance in this state I would probably freak out immediately. I was trapped in this meeting until they let it go. This was ok though, I have been hoping for a connection like this for a long time, ride it out (rapture 2005).

The intimacy of the relationship with the Other is characterized as an I-Thou relationship by the teaferie, and Terence McKenna; it can be deeply personal and emotionally affecting.

11.7 Ego-dissolution

The experience of ego-loss, ego-death or ego-dissolution, the disruption or disappearance of the usual sense of self, can be terrifying, blissful, or some of each in the psychedelic state. It is a frequent feature of psychedelic experience across a spectrum of substances, and can be the catalyst for life-changing experience. It can be associated with the experience that one is dying. And it is often a preliminary, if not a pre-requisite, step to the encounter with the Other, in various forms.

It seemed an increasing amount of "J" was being replaced by this random stream of human consciousness. The process - which I felt then was divine, yet cruel and terrifying now - seemed to be attempting to dissolve me. I called to my friend, I tried to explain, but it was difficult to speak and to concentrate. There were quite a few moments when I was so absorbed in fighting the dissolution that I remained silent and still for what seemed like long periods of time.

As the dissolution continued, I felt as though my body was becoming possessed by random personalities that flowed in from the stream of core human consciousness. I remember looking at my friend with the consciousness of others, touching him as though he was some remarkable alien thing. The urging toward dissolution became so intense that I was sure that "I" would not return from the trip. I was terrified - I didn't want to die. I thought I was literally losing my mind, and losing it permanently. I managed to express some of this to my friend; he held me while I moaned and cried in the grips of what I was sure was death and madness. Everything around me seemed utterly alien; once, when my friend tried to talk to me, I felt I had lost the ability to understand language.

My friend was eventually able to get through to me, to talk me back to a state of semi-sanity. It took a tremendous amount of will on my part to cling to his words and make sense of the [sic] and, as I did so, I felt I was the whole of the universe clawing its way out of darkness and madness toward a divine radiance and sense of health and salvation. This continued for some time; it was utterly exhausting, and I didn't know how long I would be able to bear it. The feeling of dissolution had taken on a physical character - a searing iciness seemed to be taking my body over. My friend continued to reassure me that I'd be okay. Eventually, I began to feel like it. I had made it "to the light", it seemed, and felt a peace return and saturate my being. Concentrating on the light, I was able to manifest it in greater and greater degrees. It seemed I had turned my soul - which was also the soul of the universe - away from drowning in a river of fragments of human consciousness toward something that I could only call the genuinely Divine.

The ego-dissolution continued now, but peacefully. Whatever parts of me left were replaced by that Divinity. Visions of joyously dissolving into the sun and the

sky accompanied the experience and there was an unutterable feeling of the infinite and the sacred. I encountered the stream of human consciousness again, but this time I looked on it with what I felt to be the love of God. It was beautiful, touching, precious beyond all description. It had been nearly twelve hours since I'd dosed, and the effects were subsiding. I focused on reshaping my own self/ego in that divine image (JT 2009).

Aldous Huxley framed the conscious/unconscious dichotomy in his pre-mescaline epilog to *The Devils of Loudun*, a passage primarily negative on drugs and their possibilities, as a blend of psychological theory and the perennial philosophy:

When the shell of the ego has been cracked and there begins to be a consciousness of the subliminal and physiological othernesses underlying personality, it sometimes happens that we catch a glimpse, fleeting but apocalyptic, of that Otherness which is the Ground of all being. So long as we are confined within our insulated selfhood, we remain unaware of the various not-selves with which we are associated—the organic not-self, the subconscious not-self, the collective not-self of the psychic medium in which all our thinking and feeling have their existence, and the immanent and transcendent not-self of the Spirit (Huxley 2009).

The description of ego loss in *The Psychedelic Experience*, Leary, Alpert, and Metzner's manual based on the Tibetan Book of the Dead, is presented with clinical precision. The authors were still close to their academic ties at Harvard; the language is in the objective academic style of three psychologists.

Symptoms of the onset of ego-loss are listed:

1. Bodily pressure, which the Tibetans call earth-sinking-into-water;
2. Clammy coldness, followed by feverish heat, which the Tibetans call water-sinking-into-fire;
3. Body disintegrating or blown to atoms, called fire-sinking-into-air;
4. Pressure on head and ears, which Americans call rocket-launching-into-space;
5. Tingling in extremities;
6. Feelings of body melting or flowing as if wax;
7. Nausea;
8. Trembling or shaking, beginning in pelvic regions and spreading up torso.

These physical reactions should be recognized as signs heralding transcendence. Avoid treating them as symptoms of illness, accept them, merge with them, enjoy them (Leary 1964).

And further,

The appearance of physical symptoms of ego-loss, recognized and understood, should result in peaceful attainment of illumination. If ecstatic acceptance does not occur (or when the period of peaceful silence seems to be ending), the relevant sections of the instructions can be spoken in a low tone of voice in the ear. It is often useful to repeat them distinctly, clearly impressing them upon the person so as to prevent his mind from wandering. Another method of guiding the experience with a minimum of activity is to have the instructions previously recorded in the subject's own voice and to flip the tape on at the appropriate moment. The reading will recall to the mind of the voyager the former preparation; it will cause the naked consciousness to be recognized as the "Clear Light of the Beginning;" it will remind the subject of his unity with this state of perfect enlightenment and help him to maintain it (Leary 1964).

Leary, et. al., by mapping the psychedelic experience to (their understanding of) *The Tibetan Book of the Dead* are trying to program the psychonaut directly through ego-loss into enlightenment. "If the subject fails to recognize the rushing flow of First Bardo phenomena, liberation from the ego is lost. " The "rushing flow" is identified with the Kundalini experience of energy rising through the spine.

Ben, in a post on the 'Shroomery, describes ego-death less cosmically:

Ego death is the absence of who you have built yourself to be. It is the splitting of the mind when it first begins to happen, and the ability to truly LOOK at who you normally are, without rationalizing your flaws which you might normally do. It can be one of the most beautiful experiences in your life, but even more, if understood and dealt with properly, it can be more than just a single experience, but a way of life. But furthermore, it will draw out extreme hurt and pain because you will have uncovered a mask that the "real you" normally wears, and is so comfortable in wearing. It strips away your security of who you are, and it will be very clear to you that there are some serious issues with who you are that need to be dealt with. It is the feeling that you are speaking with your own mind, or watching the person you usually are on a movie screen, and a person with the opinion of only wanting the best in this world sits watching (Ben 2001).

My own experiences of ego-loss have been many and varied. My stance toward my baseline sense of identity, "Diana," evolved with experience, to the point where setting "Diana" aside is a relatively gentle process, like taking my clothes off to turn in at night. But along the way to that condition, which I think of as a navigational skill rather than a spiritual or psychological accomplishment, were a series of dramas involving a metamorphosis of personality, sometimes occurring over a series of psychedelic sessions developing episodically.

Rising rising the given and the taken—the gift of self—the sacrifice—don't forget this—not possible in baseline—no—abide the changes—different being now—still—and deep—hermit

Stillness as hand gripped lightly—what is let go is “Diana” in any modes—enter the zone of the dragon—through the dense area—not so dense—fractal unfolding in the heart of flower—lily—not lily—divine lessons—layers where all mind content loosened flowing by more candles—different shadows—reconstitute room but charged with meaning. The process unfolds—bodily sensations—little nausea—teeth and roots alive body sense dissolving into pattern—this is the dissolve and the metamorphosis—very very intense very powerful very delicate process—stillness helps—dimensions opening hugely all around vortex in center changing transforming every living body by let me be understand my body understand the table as altar you preparing the sacrifice mass transubstantiation moving to manifestation like segmented insect body also to something similar looking now the rainbows everywhere spinning glory of butterfly wings practice again the transmutation what comes from you your body your words—the transformed body in pangs of birth lie down let happen the next don't be afraid—the host the tabernacle light all come through you—the communion— (AD_03.08.09 1 gm *Stropharia cubensis*)

A different experience of the transformation of self occurred in 2002, and has happened many times since. I call the experience *slip-sliding*, meaning the sense of sliding very quickly in and out of a series of personalities. *Slip-sliding* for me is a primarily LSD experience, though I have sensed it less vividly, or less prolonged with psilocybin at relatively low doses (1—3 gm. dried *Stropharia cubensis*).

—every kind of dance is passing through me—and I am inside the dance of (my) many kinds of bodies—black bodies male bodies even—just as I thought was I in an extreme of female—shapeshifting again—the male dance of pride and attraction now it is of old Cretan men—stiff and proud, bending only to the music only the dance which bends them—dancing into the sadness the dance of degradation as the dance nears its end still—dances until its last breath spent—in the dance—dance me to the end of love—dance through every costume every possible adornments, silks and satins, tapestried, gauzes sequined surfaces—all tattered tired curving all at some level trying yearning to express the richness of the Dance, the neverending dance—all has been done in dance—a many sided endlessly inventive dance—the dance always remembers itself even in its ancient bones, its tatteredness, its fallen flesh and it doesn't matter—it is all the dance nothing to be judged outside the dance—the dance is sacred in every form everything you have differentiated as ugly here—beautiful there—everything you have secretly despised as chintzy cheesy bad taste ugly decayed unbearable all all all of it is utterly sacred—the body of the dance is everybody that too that too however jangly—I'm going to let you be me, right inside me—able to reach into any beingness—be it utterly—with no judgment—let you be that open just for one sacred second—nothing that can't be felt to its very core, danced in every cell all Black American history and dance and music, dress and skin and drugs and the whole culture danced right through me—what it's like to utterly let go of the prison of your identity and let the riches of the world wash through—this is a strange repentance—culture after culture washing through me—every form sensed from inside—sensed as the dance the dancing the now it is Native American—back to black—you don't ever have to be afraid of those other humanesses—they are all and only human they are dancing the dance shifting registers now—can't describe where am I—hurtling at lightning speed through cultures, people, bodies everywhere the fabric of humanity—so worried so much more is there outside your teensy cultural window—so much—all is human—this

began with the gypsy children—you were patronizing them in their tinsely costumes—oh try to imagine yourself for just one moment behind the eyes of the child you saw today—all ages now—coinciding, old old crones of other cultures, the wise or bitter old women, and the little children—already who they are—(AD_02.02.09 150 micrograms LSD)

The experience continued for several hours, through thousands of human beingnesses. The lesson was delivered in the take-no-prisoners psychoanalytical laser beam style that LSD can assume. The point: to experience, over and over, what it was like to fully “be” someone completely different, and from that drill, to realize “I” was no better, and no worse, and certainly had no special right to the ego’s constant game of *sotto voce* comparisons with other persons, the playing of which came sharply, and repetitively into view. It was not ego-death, per se (more of an ego-reduction operation), but it certainly constituted a great loosening of my grip on said psychic formation.

The question of the Barthean “death of the author,” and Foucault’s notion of the “author function,” takes on new meaning with the “death of the self” of the psychedelic experience.

When Foucault experienced his acid trip at Zabriskie Point, the ‘logical, horizontal vector with respect to LSD became one of ‘depth’ and verticality, in that it could be described as an exercise on that supremely localized element of the ‘series’, the materialized cultural practice of ‘the self in relation to itself’ or *oneself*. The power of LSD to ‘depersonalize’ the subject and to induce a state in which the coherence and stability of individual identity are shaken is well known. To expose oneself to its effects in this direct, chemical manner through bodily incorporation is to expose oneself to an experience of the unbridled contingency of the processes by which coherence and identity come to appear fixed and natural in the body itself. It is an extreme, experimental undertaking and a willful intervention in the processes by which one maintains oneself as oneself. No matter how reckless it may be *judged* to be, it is an experiment of some significance when viewed against the backdrop of Foucault’s claims that the humanist subject is a socio-historical and cultural contingency and an epiphenomenon of the prevailing system of thought.

Whilst Foucault, up to this point, may have established the basis for *understanding* the possibility of a subject otherwise than it is, such thinking cannot ‘think’ the processes of *becoming otherwise*. Actually, taking LSD is an experimental leap into an abyss of ‘self-destruction’ and an actualization of becoming-otherwise (Boothroyd 2006).

And if “the self” as understood by “oneself” at baseline is missing in action, and/or in a condition of a plenitude of selves, then the authorship of the ADs

must be questioned. At all mind-states, the questions arise: Who writes? Who reads? Who understands? What, for that matter, is a *who*?

*and when the identity dissolves then the Others appear those more permeable
a creature void of form⁷⁸ [AD_07.03.19 cannabis]*

11.8 Protocols for Knowledge Acquisition Between Phases of Consciousness

Charles Laughlin, et. al. discuss the transformations of consciousness through different *phases* by way of *warps* and detail the role of the autonomic nervous system (ANS) in those transformations. The ANS can be “retuned” (moved through a warp into a new phase) by various driving mechanisms that are common attributes of a wide variety of ritual activities: “chanting, dancing, ingesting psychotropic drugs, fasting.”

These drivers may be augmented by enhanced concentration either upon the driver or upon some associated “symbolic” percept. Also, psychotropic drugs, both ancient and modern, can act to retune the ANS in favor of a desired phase of consciousness. . . It is quite common in religious ritual for drivers to be paired with symbols. The pairing of driver and symbol is an efficacious means of cross-phasing information from a phase mediated by one ANS tuning to another. (Laughlin 1990)

think of what crystalline structures do to light lenses prisms lasers diamond rings and other glittery things that reflect refract transmit light with fiery rainbows and great glitter we are with projection now as much as reflection but all occurring in the Dome of Consciousness (AD_03.06.07 MDMA)

how we define the wall around the world the limits of reality fundamentally are reflections (sic) of the perceptual bandwidth. your tuning determines your everything else but tuning complex not one note infinite multiplicity of waves interacting Fourier sum of those is the representation of a pattern (AD_06.02.03 Cannabis)

The topic of the “cross-phasing of information,” in other words, bringing information intact from one phase of consciousness into another is central to the process of knowledge acquisition in the psychedelic sphere. Tart (1980) and Fischer (1971) speak, respectively, of “state-specific memory” and “state-bound” memory, and of the difficulty in bringing the knowledge of a

⁷⁸ From the Bob Dylan song, *Shelter from the Storm*: “I came in from the wilderness, a creature void of form, come in, she said, I’ll give you shelter from the storm.”

profoundly altered state back to the state (or tuning) of ordinary or baseline reality. This is one of the issues at the heart of the unspeakability of the ASC: the problem of communication between and among states of consciousness. Laughlin discusses various techniques for cross-phasing of information, such as Tibetan dream yogas, and visualization practices. In the many and varied psychonautical practices, various techniques have been tried. Leary, while still at Harvard and very much the experimental psychologist, developed an Experimental Typewriter (the E.T.).

The purpose of the E.T. was to deal with the "words cannot express" aspects of accelerated-brain experience. Subjects could indicate any of various levels of consciousness that they were unable to describe at the moment by pressing the appropriate buttons on the typewriter. This signal was recorded on a revolving drum, much the way temperatures are graphed in meteorological stations. After the session, when consciousness was operating at slower speeds, the subject would have leisure to examine the recorded data and describe the sequence of events fully and precisely (Leary 1990).

Leary went on to develop a model of eight levels of consciousness, a system he continued to elaborate throughout his life, with a vocabulary to identify these levels.

We identified eight levels of consciousness: stuporous, emotional, symbolic, somatic, cellular, molecular, and out-of-body. Each level needs a vocabulary. For the emotional and symbolic levels, which lent themselves to verbal descriptions, we were able to use the variables developed during my research in Berkeley. The sensory, cellular, and molecular visions required a non-verbal language. So we collected biology slides and film-strips and overlaid them to create multiple images. We commissioned photographers to make enlargements of cellular activity. The walls of our offices and our living room oozed and dripped with technicolored bacterial pulsations and protozoan encounters.

The auditory vocabularies were the most novel. We assembled a tape library of heartbeats, sound-amplified brain waves, electronic tones, capillary flows, avalanches, heavy breathing, erotic moans, cheering (supportive), cheering (aroused), mob hostility (in twenty-four languages), cash registers, firecrackers, football scrimmages, high tides, whale whistles. We are producing, however crudely, a language for externalizing the aural panoramas that are experienced during moment of transcendence.

These new linguistic devices had an intense effect on visitors. Almost everyone got a bit high in one way or another when exposed to the feedback of bodily images. Many sober types confronted with unfamiliar yet very personal sensory and neural data had to be helped staggering and retching from the room (Leary 1990).

Leary also constructed a room he called the Time Chamber, lined the ceilings and walls with paisley prints, covered the floor with red velvet cushions, and installed a bronze Buddha illuminated by candles in ornate holders which he called "an early isolation tank." Needless to say, John Lilly's design of an isolation tank was completely different, meant to minimize sensory input to the greatest degree. The body floats in near body-temperature water, made more buoyant by Epsom salts, in darkness with no sound. Terence McKenna's instructions are similar: five grams dried *Stropharia cubensis* in silent darkness. The difference in approach may be explained by Roland Fischer's differentiation between two personality types and their opposite responses to sensory input during the peak of a psychedelic session.

When our subjects were placed in an environment of sensory attenuation, only the minimizers (i.e., those who at the peak of drug-induced arousal intend to reduce sensory input) will develop a hallucinatory experience. Maximizers (i.e., those who at drug-peak intend to increase sensory input), however, not having sufficient sensory input to maximize, are never sure whether they were given psilocybin or placebo (Fischer in Laughlin 1991).

By this metric, Timothy Leary's designs for the setting of psychedelic sessions (including his early general public lecture/light shows) would clearly work more effectively for maximizers than for minimizers. This observation can be extended to the existence of two distinct types of environments found at the Burning Man festival: on the one hand, the sensory overload conditions of the dance environments, featuring high amp sound systems and rapidly moving images in light shows, and deep-playa environments, far from the pounding of the subwoofers, where one find domes or structures open to the stars, minimalist environments for the minimizers.

Fischer's system of hyper- and hypo-trophic arousal states mirrors the same differentiation of paths to ASC: the high stimulus environments of ecstasy, and the path of stillness and meditative silence. He ultimately concluded that these opposite paths led to paradoxically similar states (Fischer 1971).

Other techniques have been used for bringing information back across phases. Vocal recording on tape works for some. Most researchers and psychonauts rely on a post-session written report. Shulgin's research groups over the years followed this procedure, though he reports it was not always easy to get people to write the kind of full reports that would be most useful to him in these bioassays. Stanislav Grof's program of Holotropic Breathwork, a technique for inducing ASC using evocative music and accelerated breathing, finishes the session with the creation of mandalas by the participants. (Grof 2009)

The "minimizer environment" would seem to be more conducive to recording activities during a session.

11.9 The Technoetic Practice

The convergence of artistic intention, psychedelics, and technology that forms the technoetic practice began with a download experience in the summer of 1998, as I began to outline the novel that became *The Maze Game* (Slattery 2003). This thesis examines a nine year period of time (1998—2007) covered by the technoetic practice. The process continues, but for the sake of this research, an end date of mid-2009 has been chosen.

12 Appendix V: The Technoetic Practice, History and Protocols

The convergence of artistic intention, psychedelics, and technology that forms the technoetic practice began with a download experience in the summer of 1998, as I began to outline the novel that became *The Maze Game* (Slattery 2003). This thesis examines a nine year period of time (1998—2007) covered by the technoetic practice. The process continues, but for the sake of this research, an end date of mid-2009 has been chosen.

12.1 The Download Experience and the ADs

The download experience that propelled the technoetic practice happened as follows. The fictional world of *The Maze Game* had established itself well enough that I could enter it, look around, and ask questions of the characters.⁷⁹ I asked for the details of how the game that is central to the novel was played. The answer arrived as a high-speed blast of information: the game was played in mazes made of the visual language, Glide, taught to the characters by a hallucinogenic blue waterlily. I got the whole thing in a timeless instant: game, rules, architecture of the playing field, the 27 glyphs, how they behave as a visual language, and the myth of origin of the language. Glide presented itself in the story-world as an alien language of psychedelic origin. The glyphs of the language formed mazes, the physical structures on which the game was played. As the plot unfolded, it became evident that the Glide language was intricately involved at every level of the story: as the game maze architecture; as a secret code; as a literature; as an oracle. The forms of the language, especially that the

⁷⁹ This cognitive maneuver is well-described by deictic shift theory, in which the reader (or in this case the author, who is always also a reader in a tight feedback loop), creates a model of the story world into which she can step. One's viewpoint, or deictic center, is shifted from outside the story to a viewpoint within the story. The deictic shift is a change of worlds. Duchan, J. F., Gail A. Bruder, and Lynne E. Hewitt, eds. (1995). Deixis in Narrative: A Cognitive Science Perspective. Hillsdale, New Jersey, Lawrence Erlbaum Associates.

signs moved and morphed, enabled new modalities of cognition. Mazes of meaning.

Any sequential listing of these informational elements of the experience at this point would mask the download effect. In truth, these elements presented themselves all-at-once in a spontaneous ASC that penetrated the baseline reality of my writing room, delivering the generality of "Glide" with all the particulars as well. I have come to think, eleven years later, of that original download as a highly compacted, intricately coiled and folded linguistic object, like a string of DNA, an informational entity, a living program that directed the development and building of "the Glide Project" in a sequence of inter-related and interacting works: the novel, *The Maze Game*, published in 2003; the Glide software programs; the ADs (1999—present). This thesis is the current section of the larger project. At the same time, it encompasses, through its own structure, the whole of this 'work of works,' the Glide Project.

The ADs have their own internal subjectivity, the voice and voices from which they "speak out." Taken together as a work they are spoken about as "the work it/self." To address the subjectivity of the work it/self, implies several interwoven and perhaps hopelessly tangled themes, present in a critical approach to a work. 1) the constitution and treatment of the subject (the work under consideration by its analyst, in this case, also its author); 2) the treatment of the subject of the subject (what assumptions about subjectivity characterize various exegetical approaches); 3) the treatment of the work as object, (by author-as-analyst); 4) the encounter with the work as subject, that is, as possessing a kind of subjectivity; and 5) the subjection of the work as a subjectivity to various objectifying treatments, such as an analysis. This oscillation and resonance between "subject" and "object," this inherent ambivalence is contained in the phrase, "the work it/self," in other words, the

dual nature of the work as an "it," (an object) and the work as a "self," (a subject).

The ADs were begun a year later, also in Ireland. They are the record of a series of psychedelic explorations undertaken to explore Glide. The idea to embark on this adventure was enfolded in the original download as an element of the novel: Glide has a psychedelic myth of origin, and the characters each undergo a formal psychedelic vision quest in a Glide maze as part of their training for the game. There was an implicit directive: "If you want to know more about Glide, then do likewise."

The ADs contain words, drawings, and most recently video: writing with the visual language, Glide, a set of 27 glyphs whose forms move and morph. When the forms leave the conventional two-dimensional writing surface and navigate in spiral waves through three- space, their traces are called LiveGlide.

The effort in the ADs written during a psychedelic session is scribal; the "faithfulness" of the scribe is to record—not to de-scribe, or trans-cribe—these activities come later—but to in-scribe. I (a designation which it/self transmogrifies during the process)—write, in natural language, draw, or algorithmically inscribe using a language, Glide, whose self-instruction manual includes a myth of origin in a psychedelic state, *and whose purpose is to facilitate the languaging of the unspeakable.*⁸⁰ There are clear differences between the reports of the ongoing sessions, and the subsequent reporting between sessions. A further "reporting" occurs in the later memory of sessions and their content, perhaps in examining aspects of an experience which were not the foreground of interest or attention while they were happening, but are of interest at a later

⁸⁰ Much of what is termed unspeakable is simply happening at too steep a cognitive velocity to comprehend using the slower linguistic software of natural language symbolic systems. LiveGlide is, from the perspective of this research, a writing instrument designed, refined, and played in multiple SOC to facilitate this knowledge exchange, which perceives it/self occurring at a level of greatly enhanced conductivity and connectivity of ideas and images.

date. For instance, there is relatively little reporting on visual and aural phenomena, as these were not usually the focus of my attention. This should not be interpreted as a lack of experiences of extreme perceptual shifts, where sensations of color, sound, taste, touch, bodily energies, a range of powerful emotions, ambient temperature, extra-dimensionality, and their vivid and synaesthetic combinations in the construction of visionary worlds permeate consciousness. The length of entries, and the frequent time-stamps marked indicate varying spaces between entries where much is occurring. The recorded content reveals my tendency to focus on what was being communicated and thought between the Other and myself (Self, selves) in varying configurations of what I came to call the Be Me.

The initial download experience, and the subsequent articulation of the 'Glide genome' in works, changed the direction of my life in many aspects, beyond the creative works per se. The ADs record not only the investigation of *Glide*, but the progressive rearranging of my psychological and spiritual condition and the external facts of my life. However life-changing in their particulars, these rearrangements were a secondary factor to the main agenda: the investigation of *Glide* as a linguistic system from the psychedelic sphere. From a viewpoint within the psychedelic sphere, time spent understanding my personal history, my difficulties, my intentions, was always understood as a necessary removal of obstacles to both a deeper understanding of *Glide* and the psychedelic sphere in general, not as a goal in and of itself. That said, it was also clearly stated that *Glide*, as a living language, had its own embedded uses, including a therapeutic intention that stems from its self-stated ability to heal

the heart by the integration of the multi-minded structure of human consciousness.⁸¹

12.2 Protocols in Personal Practice

No psychoactive substances other than coffee were implicated in the download, but the download was a distinct ASC. A year passed, during which I continued writing the novel, and exploring the Glide language, creating the glyphs in vector drawings with Illustrator, animating them in Flash, and trying 3D extrusions in Bryce.

[Appendix I, Figure 6]

These investigations resulted in the original Glide website in 1999. Glide presented itself in the story-world as an alien language of psychedelic origin. The glyphs of the language formed the patterns and physical structures on which the game was played. As the plot unfolded, it became evident that the Glide language was intricately involved at every level of the story: as the game maze architecture; as a secret code; as a literature. The forms of the language, especially that the signs moved and morphed, enabled new modalities of cognition.

During this year (mid-1998—mid-1999) the idea formed to continue the investigation of Glide by re-entering the psychedelic experience. The idea for this came directly from the story world. The characters undergo an initiation, where they find their focus, their unique purpose in life, by ingesting the sacrament of the psychedelic Lily, invoking its guidance, and making their way through a Glide maze. Prior to 1998, I had done no psychedelic exploration of any sort for the previous eight years. In 1991, there was a single psychedelic

⁸¹ The Maze Game embodies a psychology of multiple minds or intelligences that is roughly parallel to the Jungian four functions of thinking, feeling, intuiting, and sensing. My personal odyssey is another narrative, outside the scope of this thesis.

session that was an important precursor to the practice.⁸² Prior to that, my psychedelic experiences had occurred between 1962 and 1967.

The decision to take up this practice was not done lightly. I had had enough experience with psychedelics earlier in life to know that they were potentially powerful and transformative experiences. I had been fortunate that my experiences (other than with cannabis) had been positive. I did not, however, have any experience of using psychedelics in a quest for specific knowledge. And I had never had a psychedelic experience alone. Due to my life circumstances at the time, it was not going to be possible to have a fellow traveler, or even someone with whom I could talk after the fact. I was not part of any psychedelic community, therapeutic effort, or social scene, such as rave culture, where psychedelics were commonly used. I was on my own, strictly DIY,⁸³ but with a clear research question—*What is Glide?*—to orient the exploration.

The matter of protocols—establishing a workable set and setting—was given much thought. I tend to be a minimizer type of psychonaut. If I begin a session with music, it almost always is turned off in short order. The light level I prefer is low, and it is desirable to have a completely blank area in my line of sight—either wall or ceiling—on which to project visions. The notion of having to spend an entire session surrounded by paisley images is rather repellant to my own purposes of introspection (and aesthetics). I am sensitive to color in general, and especially under conditions of extended perception. My own simple method throughout the ADs, was to write and draw in large notebooks with various pens and colored pencils. This skill was developed during the first series of MDMA sessions in from 1999—2001; the practice was transferred to

⁸² This event will be discussed in the following section, as it was critical in the formation of the self/Other relationships. These relationships are the context in which knowledge acquisition took place; they are further an integral part of what was learned about the psychedelic sphere.

⁸³ Do it yourself.

the far more challenging environment of the psilocybin sessions, where the tendency of the writing words in English to transpose into drawings was usually present. Control of the writing hand was secondary, however, to the maintenance of an English language channel of communication, in parallel to other communicative events and processes occurring in the ASC. With practice, the ability to maintain and write with this channel became relegated to a more automatic process, the way learning to drive a car or ride a bike, skills which at first are awkward and demand a lot of conscious attention, can be accomplished in such a way as to leave conscious attention free to attend to the unfolding phenomena of the experience. As the research period progressed, during the period after the development of the LiveGlide software in 2006—2007, many sessions were conducted where part of the time was spent writing with the Glide symbolic system in three dimensions as a different means of scribal activity in the ASC. This process will be described in greater detail in Chapter 7, "Xenolinguistics."

The patterns established in the early sessions worked well enough and became, with refinements, a dependable procedure that would 1) keep me safe and in good health; 2) yield an ongoing record of the research; 3) be sustainable over the long haul.

The long haul: I had no idea where this was going to go or how long it would take. In the story world, there was a model for the process. The young Death Dancers each go through an initiatory ritual of ingesting the psychedelic Lily, and entering the maze, in search of their purpose, their focus. I was quite deliberately becoming a character in my own story, enfolding the story into the

story of my life, (using psychedelics as a knowledge-path), while the story began enfolding me along the creodes⁸⁴ of its own agenda.

"It's true you can't hide from the Lily. You're naked and transparent. But the Lily does not judge you. She arranges you. Takes what you have brought, all the pieces, and shows you the whole they make. She uses everything, leaves nothing out."

"Then why is Focus always such a surprise?" MyrrhMryrrh asked. "I've read accounts where Dancers speak of Final Focus as a rebirth."

"The first answer is that most of what you bring rises from the sea mind. By definition, it's what's out of sight of the sweep of the lighthouse beacon of the island mind. The sea mind always holds surprises. The second answer is that what you discover, you find you knew all along—you just didn't know you knew. The Lily gathers you in and gives you the gift of meaning in return—the meaning of your life, your death, your Dance. It's not necessary to understand the meaning, how it plays out in time, all its implications. Understanding the gift is not the third step. The third step is the choice to accept or reject the gift of that meaning. Acceptance includes the willingness to be true to that meaning. The willingness is what brings the focus. With Focus, no matter what arises in your life, you'll have the means to decide your course of action." (Slattery 2003)

integrate—integrate—weave the whole—nothing can be left out—whatever you decide be true to Glide (AD_00.03.18)

The protocol was set with the first session. A completely private space where I could count on no interruptions. An empty stomach. Water at hand. Tea. Notebook and pens. Music I could turn on if wanted or needed. Talismans for comfort. Warm loose clothes. Blankets. Candles. Time spent in these preparations, during which I could take a good look at what my current concerns are (awareness of *set*)—best to "take care of business" before leaving

⁸⁴In short, a creode, a term created by developmental biologist, C. H. Waddington, can be thought of loosely as a mental habit or pattern. In my experience, the psychedelics, systematically used over time, can produce new creodes. In so far as those new patterns are catalyzed by plant teachers experienced as sentient intelligences, they can be interpreted as having their own intentionality or agenda. Charles Laughlin defines creode in terms of biogenetic structuralism, thus: "The developmental interaction between neural models and the operational environment -- an interaction involving selection of, growth of, entrainment and re-entrainment of, and hierarchization of initially neurognostic structures -- canalizes functional processes relative to particular stimuli in the operational environment. Using C.H. Waddington's term, neural models (as part of the phenotype) become relatively fixed in organization and structure, and thus produce creodes; i.e., become regularized, recursive and predictable in cognitive content and motor response relative to the intentional object. It makes sense, therefore, to speak of an individual's cognized environment and its constituent models as an autopoietic system of creodes adapting to its operational environment." Laughlin, C. (1996). "Glossary of Technical Terms Used in Biogenetic Structuralism." Retrieved 1/5/10, 2010, from <http://www.biogeneticstructuralism.com/glossary.htm>.

on any journey. There was one "rule," given in the first session: what ever comes up, write it down. No editing. And a day, two if possible, following the session, to spend alone, quiet, for integration, and to review the notes.

On July 6, 1999, with 125 mg. of MDMA (the Lily) I entered the maze.

*you must weave the threads of connection between the minds visible language does this
Glide is the language that unifies the minds (AD_99.07.06 MDMA)*

The Other was present from the beginning, in the second person address.

7.7.1 Initiation of the Relationship with the Other

In 1991, I had the opportunity to experiment with MDMA. It was a substance about which I had read very little; I had classed it broadly as a psychedelic, and still do, a categorization that most in the field of psychedelic science would disagree with. MDMA is usually categorized as an empathogen, inducing an attitude of emotional openness, a lowering of egoic defenses, an increased ability to communicate with and trust another, and the ability to access previously unavailable materials from the unconscious. These attributes have made MDMA a useful adjunct to psychotherapy (Shulgin and Shulgin 1991; Stolaroff 1997; Roberts 2001). Legal research on MDMA is currently opening up again (MAPS 2009). This session set a pattern at a deep level that influenced all subsequent sessions in which the Other was a prominent feature, across substances.

My expectation or *set* of MDMA as psychedelic, the manner in which it was administered, the unknown dosage, and my own individual mindbody response (generally highly sensitive to chemical perturbations) each may have contributed to the power of the experience, and its lasting imprint on the nature of the relationship of self and Other in the psychedelic sphere thereafter. A further, and critical aspect of *set* was my immersion at the time in the literature of Christian mysticism. I had been studying the works of St. John of the Cross,

Teresa of Ávila, Thérèse of Lisieux, and Edith Stein. My friend opened a gel capsule containing the MDMA and tapped it into a half glass of orange juice, which I drank. It took effect in a very short time, as a huge, rocket-like up-rush of energy, a true NASA-style launch, complete with heavy G-force that pinned my body temporarily to the couch, and propelled me into inner space at warp speed. In the shock and surprise of this sudden overwhelming of mind-body-spirit I cried out involuntarily for help, a *cri de couer* from the depths, *dear Jesus help me...* which resolved into a spontaneous prayer inwardly spoken *dear Jesus teach me the pain of loving all creation* to the suddenly surrounding presence of total love which held (me) dissolved as it were in a pure solution of it/self, a state of grace and communion. I opened my notebook as I settled into heart-heaven and wrote down what I heard for the next four hours, filling half the pages with a rush of words throughout which ran the refrain *for I am you and you are me, self and Other wholly intertwined, the pronouns a simultaneous duality and unity, as above so below, communion, and conversation.*

The experience was searingly deep, a hot poker plunged into the heart, a pain and a bliss that had little or nothing to do with any tribulations my personal life could offer as a model, a bliss and a pain of love that could only be borne by further opening, complete trust, and total acceptance.

With the unbidden cry for help I had spontaneously—perhaps with the penetration of what the Buddhists call *pure wish*—invoked the archetype of the Other in the imprint of Christ, though even the Christ-ness of the Other flamed away into something more mysterious.

who cries out in the garden of the stars?

From this vantage point, 18 years later, it seems a pathway to the Other was blazed, an imprint branded, a creode established that was then available for use when I returned to the psychedelic sphere in 1999 to ask about Glide. This is not

to say that all experiences of the Other arrived with the mystical intensity of the 1991 session. But many of the key features persisted: the identity experience of two distinct—and unequal—points of view in dialogue; the teaching voice; the emotional atmosphere of loving trust; the cultivation of acceptance of experience, all experience, in all phases of consciousness, including the acceptance of being accepted in a fundamental and unconditional way; the injunction not to fear; the injunction to let go of whatever attachment might be impeding the pure flow of experience in the moment.

the opening is to keep all minds speaking at once—all minds aware—(AD_99.07.06)

None of these qualities of being were sought or experienced as ends in themselves; rather they constituted the development of a skill-set of states of mind-body-heart that were most conducive to an unobstructed receipt of the information download of the particular session. It's simply easier to pay attention in a learning situation in a bliss-body (not distracted by aches and pains); a state of emotional fulfillment (not emotionally ego-hungry, lonely, defensive, or frightened); an intensity of openness to the strange and bizarre (from a baseline perspective); and while on temporary sabbatical from the chore of making demands, judgments, and constant-comments to myself, the better to attend to the learning presented.

time, the dream-shredder, will take this all away. child, blind child, dear child—erase your face. you want what no mirror can give you—a glimpse of the naked truth. (AD_99.03.24)

I never repeated the rocket-launch approach to the MDMA state; the slower rising became a learning opportunity in itself, the opportunity to experience the shift from bounded singular ego-identity "Diana" to a duality/unity in the configuration of self and Other through the phases experienced on the way into the psychedelic state. Laughlin, et. al. call these shifts "warps" or periods of transition between phases or "cognized episodes" of consciousness. The warps,

in Laughlin's view, can be "momentary to the point of evanescence," and are usually unconscious to the perceiver (Laughlin 1990). I have found, with a variety of psychedelic materials, that the warp, the period of transition from baseline state to a more stably configured psychedelic state, to be in most cases of a duration long enough⁸⁵ that the process of transformation can be observed and described. Further, for the period of time from the first "Glide" session in 1999 through the end of 2003, the teaching voice of the Other was not clothed in a particular archetype but existed in a more abstract, disembodied form, something that could be called, with Terence McKenna, "the voice of the Logos" if one needed a name for it. But that name does not quite capture the paradoxical sense of the Other as both the intimate and yet detached and objective voice; heart and mind functioning in tandem, not at war.

12.2.1 A Spectrum of Transpersonalities

The landscape of self and Other took a radical turn toward complexity with my first psilocybin mushroom experience in 2001. What have these multiple others been called, those so different than the teaching voice, mobs of them, multitudes, legions, who can be reached on tryptamine pathways? The little people, the munchkins, the tykes, the self-transforming machine elves, the gnomes—all appear in the literature, not just of contemporary trip reports, but in the shamanic literature as well. Tryptamines (psilocybin, DMT, ayahuasca) reveal them (release them?) though they are by no means always reported in all tryptamine experiences. They are shapeshifters but at a whole new level of shape and shifting. A profound and occasionally wicked sense of playfulness and tricksterism, a very odd sense of humor, sometimes associated with the hilarity that mushrooms can induce. They show up in droves, or parades, carnivals, so many, one for every cell in the body, one might suspect, or every

⁸⁵ DMT is a significant exception.

protein chain, and minded, as if the bodymind were swarming with biomechanical intelligence, alien armies thrilled to see you and anxious to reveal at high speed their synaesthetic objects.

While Winkelman's model of psychointegration⁸⁶ maps comfortably in a correlative relationship with the experiential "integration of minds," I confess I can find nothing in the neurobiology of ASC that maps to the particular phenomena described in the following experiential reports.

...I found myself once again in the company of the "elves," as the focus of their attention and ministrations, but they appeared much less colorful and altogether preoccupied with the task at hand, i.e., pouring a golden, viscous liquid through a network of long, inter-twining, transparent conduits which led into the middle of my abdomen...[Subject O] (Meyer 1997)

There are many of these things, but the main thing that's happening is that they are engaged in a linguistic activity of some sort, which we do not have words for, but it's visible language. They are doing the visible language trip. (McKenna 1990).

I was in a large space and saw what seemed to be thousands of the entities. They were rapidly passing something to and fro among themselves, and were looking intently at me, as if to say "See what we are doing" [Subject V] (Meyer 1997)

This time I saw the "elves" as multi-- dimensional creatures formed by strands of visible language; they were more creaturely than I had ever seen them before.... The elves were dancing in and out of the multidimensional visible language matrix, "waving" their "arms" and "limbs/hands/fingers?" and "smiling" or "laughing," although I saw no faces as such. The elves were "telling" me (or I was understanding them to say) that I had seen them before, in early childhood. Memories were flooding back of seeing the elves: they looked just like they do now: evershifting, folding, multidimensional, multicolored (what colors!), always laughing weaving/waving, showing me things, showing me the visible language they are created/creatures of, teaching me to speak and read. [Subject G] (Meyer 1997)

It was as if there were alien beings there waiting for me, and I recall that they spoke to me as if they had been awaiting my arrival, but I cannot remember exactly what was said. This time, rather than (or as well as) flitting about me, the entities approached me from the front, rapidly and repeatedly, appearing to enter and pass through me. [Subject M] (Meyer 1997)

A strange state of mind ensued, one of dynamic, patterned energy, in which I was not sure whether I was perceiving a scene, with a moving being, or not. I finally

⁸⁶ "Shamanistic ASC elicit processes of the paleomammalian brain and induce a systemic integration of informational-producing function across the functional layers of the brain, producing limbic-cortical integration and interhemispheric synchronization." Winkelman, M. (2000). Shamanism: The Neural Ecology of Consciousness and Healing. Westport, Connecticut, Bergin & Garvey.

realized that the answer to my question regarding spirits was that there were indeed many around me, and that they were merry, hiding and playing a joke on me. [Subject M] (Meyer 1997)

In my experience with psilocybin, the two forms of the Other, the singular teaching voice and the zany alien munchkin hordes occur in varying relations to each other as the transpersonalities manifest during the course of a session. The teaching voice appears first, guiding me into the trip. On the warp in, often groundwork is laid with the help of the singular Other. Current concerns reviewed and dealt with; intentions set (not always what baseline "I" had attempted to set, especially in terms of specific knowledge sought). The Other "comes in focus" and speaks, addressing me generally as "you" and sometimes by the always gently ironic trip-name, "faithful scribe," acknowledging that I have showed up in "school" to resume my scribal duties. Calling me "scribe" is always a subtle reminder of the primary rule to "write without editing," i.e. to set aside whatever "Diana" might think about what she is inscribing, as "Diana" herself is set aside as the warp progresses.

*psychic transparency = no defenses no resistance pour out of your/self/selves
(AD_07.04.01)*

I generally perceive the warp from baseline into the psychedelic state as a literal tuning to a higher frequency: perceptually, emotionally, physically, cognitively. This is as "literal" at least as hearing a sound and being able to differentiate a high from a low frequency. This, however, is experienced as a frequency characterizing the entire state of consciousness. Simon Powell's telling of the warp:

I lay comfortably in my bed and waited for the psilocybin to gracefully infuse my psyche. Sometimes, if one is really alert, the first psilocybinetic wave can almost be coldly analysed as it washes over one's consciousness. This is a fantastic moment. At a certain point, you are shifted into an animate, supernatural reality. With eyes open, one's surroundings appear as if the parts of a divine being made of living information, and reality begins to seem like a tale being told in the mind of God. (Powell 2008)

Psychologist Roland Fischer describes the progress of the warp in relation to self and Other as a perception-hallucination continuum.⁸⁷

Depersonalization phenomena, on the other hand, manifest themselves as changes in body image, and usually accompany the dissolution of ego boundaries during creative, psychotic, ecstatic, or meditative states—whether “natural” or drug-induced—as well as while falling asleep. All of this is to say that the constancy of the “I” is interfered with as one moves along the perception-hallucination continuum for the “I” of the physical world to the “Self” of the mental dimension. Analogously, the perception-meditation continuum (see fig. 1) also involved a departure from the “I” to the “Self.” These two continua can thus be called “I-Self_ continua. The further we progress on the perception-hallucination continuum from the normal, through the creative, psychotic, and ultimately to the ecstatic state, the more complete is the transformation, or “unlearning,” of the constancies of the physical dimension (Fischer 1971).

[Appendix I, Figure 7.]

Fischer revised this diagram over the years, his final version being in the form of a circle, which he also described as having a twist in it, transforming it into a Mobius strip, closing back on itself, as he saw the originally opposite poles of ecstasy and samadhi join in an experiential unity. Compared to my own actual experience, a linear path through the warp, considered either spatially or temporally, is a greatly simplified model; the experience is for me more “a garden of forking paths.”

“A labyrinth of symbols,” he corrected. “An invisible labyrinth of time. To me, a barbarous Englishman, has been entrusted the revelation of this diaphanous mystery. After more than a hundred years, the details are irretrievable; but it is not hard to conjecture what happened. Ts’ui Pe must have said once: I am withdrawing to write a book. And another time: I am withdrawing to construct a labyrinth. Every one imagined two works; to no one did it occur that the book and the maze were one and the same thing (Borges 2007).

The munchkins arrive in various forms, with various tasks in mind, as part of the psilocybin warp. Sometimes this is felt as a journey upwards through a densely populated urban media-infested alien cyberpunk sprawl which I have called *the funhouse*, a relentless house of mirrors where I pass through a form of intense inspection, a full bodymind scan where no nook or cranny of the psyche

⁸⁷ “Perception” and “hallucination” as terms used to describe psychedelic states will be examined more closely in the Chapter 5, “The Psychedelic Landscape.”

is left un-illuminated, a kind of transdimensional airport security system rendering a status report on my entire existential and karmic situation, a pass through the scathing light of a well-calibrated shit-detector where the good, the bad, and the ugly are trotted forth, with a good deal of hazing being the inevitable result of trying to duck any unpleasantries encountered. In other words, the munchkins can perform an excruciatingly slow and narrated version of ego-dismantling, more of a picking apart. Full acceptance of all findings, resulting in non-attachment, a pre-requisite for passing on up to a distinctly different phase. This next destination has been variously described in the session reports as the peacock throne room, or a dome-space hung in space which functions as an ambassadorial meeting place, where the person of the teaching voice mediates relations with the far more alien Glides (my species of munchkin). This is a place of great beauty and enchantment. And a school that began as a nursery.

12.2.2 School

only the altered state can teach you the meaning of the altered state, can begin to answer the what, wherefore, and why of this high strangeness which is the phenomenological paradox one gets into in the process of making a description of some teensy corner of what one has perceived as the vastest unknown territory ever experienced (AD_05.12.04 cannabis)

In the psilocybin world I began as an infant: immobile, unable to focus, helpless, enchanted. This feeling of being an infant—while being urgently aware that I needed to bring every scrap of maturity as a human “adult” I could assemble to this infanthood—helpless, but surrounded by dimly perceived but clearly benign “adults” concerned with my well-being. The MDMA lessons in trust, practicing trust as a state of mind, were appreciated in the far more challenging psilocybin environment. The dimly sensed others were teaching me, step by step, first to focus my attention for longer and longer periods of time, to focus my perception in ways appropriate to a multidimensional

environment, and to learn to “walk,” i.e. navigate the spaces and times on my own, and, importantly, how to exit from unpleasant or repetitive loops (detach from compelling sights and sounds and shift attention into new spaces and times).

life-forms do not merely play negentropic games they participate in a wider brand of desire the motion does not only occur in linear time but transdimensionally easy to say the words but the words don't give the experience so we try to break you in easily with synchronicities so you don't jump out of your skin (AD_06.01.12 cannabis).

I learned how to turn encounters with negative energies into “food” by a kind of digestion back into fundamental energy, a handy skill both for dealing with certain forms of negativity, and to gain more energy for exploration. I also learned how to use a “skyhook,” becoming the Other and using the Other’s greater focus to “lift” out of one level or situation into another. As I learned to navigate the psychedelic sphere, I became increasingly able to operate the physical body and move about when necessary or desired in the physical space, a skill I came to call “multiminding” where multiple worlds could align and be perceived at once. These shifts of level or locale were modeled in the morphing of one Glide glyph into another, the idea of transformation of meaning translated into a navigational tool in the ASC.

Navigation in labyrinthine spaces and times is accomplished by control of attention and intention, staple features of consciousness in many states, but with their workings open to view in psychedelic states, and therefore subject to increasing degrees of control, as well as subtle degrees of differences. Attention, for instance, can become synaesthetically touch-like: gentle, or grasping, calm-abiding, witness-detached-encompassing, or fierce and penetrating. Different forms of attention are necessary in different conditions.

Toleration of many forms of energy moving through the body-mind is another skill. When the Rainbow Serpent uncoils its forces within, until you learn to surf the waves, sometimes you just hang on.⁸⁸

The skill-learning described in this section was ongoing over a period of years. When I reached what could be thought of as an adolescent state (circa 2004), the archetype of the Other, which since the beginning was a neutral voice, clothed it/self archetypally, with my full agreement, as a fictional character and initiated a new form of relationship (and a new ontological skill) which I call "the Be Me."

12.2.3 Elrond

The fineness as of finest cloth finest weave of finest filaments aurora cloth made of fierce energies resulting in softest veils of light shifts of color the new cathedrals spaces filled with aurora—like veils harmonic above the sexual—pointed toward the Elven archetype—Arwen—Galadriel—Elvish a myth of new language—out of the softness—the crystalline filaments and structures—important to see these—possible in human mind with just this slight re-tuning—this form of beauty bears more power in it—more attraction

You "speak" the language⁸⁹ before "understanding" it then unpack almost endless messages from it Elrond—listen how form crystallizes out of feeling—softness—the nest so sweet—the cloud of mycelium the bliss-body—which seems an end in itself for human beingness—release from pain of tensions—battles for dominance—is actually the precondition for the arising of new form (the Elven archetype very present as example) (AD_03.12.28 MDMA)⁹⁰

This choice of avatar to clothe the archetypal energy was examined during the session as it was taking form, with an awareness as to why this form in particular was appearing, and the nature of some its attributes. The sense of the formation was that of an image coming to life, being adopted by autonomous, sentient energy which chose, among the possible images in my own extensive

⁸⁸ The kinds of declaration made in this paragraph, and the many like it where I am commenting on personal experience, are "true for me" but are not presented as "true for everybody" or universal in any sense. I considered inserting "for me" as a qualifier in all such sentences, but the repetition seems stylistically awkward.

⁸⁹ "The language" refers simultaneously to the Glide language and to the language of archetypes, in this case, J. R. R. Tolkien's Elven archetype, which includes his constructed Elven languages, Quenya (High-elven) and Sindarin (Grey-elven).

⁹⁰ MDMA was often, even after five years of use, intensely visionary, which is one of the reasons I classify it, in my own experiential taxonomy, as psychedelic.

“wardrobe” of mythological and fictional characters, that of Elrond Stardome, half-elven, wizard and warrior, as the new form of the teacher.

Quiet sensing the sea of crystalline filaments gently forming out of the cloud like substrate at that level—your filamental “golden network” growing—delicate but infinitely strong—grows in the softness when your mind/body goes to the softness—lets go the tension—fighting—then it grows the filamental power—nano—tiny organic networks—generating immense power—unlimited power—undoes the “scarcity of power” game—because tapping into the power sources of other dimensions through trust opens the awareness—trust softens—trust is seemingly non-adaptive in the human game—but is the way to higher adaptation—transportation—is the narrow passageway—is the greatest bravery

Trust that this whole improbable transformation is occurring (AD_03.12.28 MDMA)

The figure of Elrond grew out of the sensed mycelial/placental golden network, another structure perceivable in the ASC, installed in an earlier session, and steadily growing, according to detailed instructions.

sense the growing network and the matrix of softness—you make the softness which is like food or placenta all mixed together now—growing—don't worry—you can't “tear” it or break it—but you can accelerate growth—feeding with the relaxation receptivity—see where it is connected to body mind major connection at heart—fed with relaxation trust love at that level of incredibly gentle touch and regard—cultivating this feeling—in the heart—dissolves fear—makes fear—and other strong human emotions food and fuel for transformation—they can be harvested but not main source of energy—main source is direct connection to extra-dimensional reality—(AD_03.12.28 MDMA)

These figures of the filamental networks, and the form of Elrond became, among other structures, more or less permanent features, accessible by intention or showing up spontaneously, of my psychedelic landscape. How to characterize these structures—how they are formed, maintained, utilized, transformed, or dissolved—is another question entirely. Timothy Leary spoke of “imprinting,” to describe essentially our early biological and cultural conditioning, following Konrad Lorenz' work with ducklings. Both he and John Lilly experimented with re-imprinting (or re-programming) the individual while under the influence of LSD. Both Leary and Lilly believed you could access the original states where the imprints were laid in while on LSD, and that changes—re-imprinting—could be carried out from there. *The Psychedelic*

Experience aims to imprint the Tibetan-Buddhist experience on the heightened suggestibility of the psychonaut.

My own experience in the psychedelic "school" has contained a number of "drills"—repeated exercises that can go on for periods of over an hour, or be repeated several times during a session. One simple example, but primary in importance, has been the development of attentional skills, as above. Another has been learning physical skills that range from gestural expressions of Glide language, through forms of yoga-like asanas, in which I practiced putting my body in positions I never imagined it could assume in baseline reality, to drawing skills, letting the hand be moved from within in the flowing forms of the rainbow serpent's motions.

somatic practice to re-imprint the body becoming aware of body from inside out old images control by means of permission from an identity that now needs it many movements some bringing much energy into the body breathing and moving from bench shoulders rotate chest moves concave to convex and breathing follows combined with wave motion up the spine coordinated with concave convex new language same language of waves how the find the wave motions available within the articulation of the body you are discovering your own exercises they are timeless and the knowledge of them is stored in the body it is what the body longs to do it is the be me which is a surrender (AD_07.02.02)

All three of these drills are aspects of the same impulse to motion; practice with them imprinted the form and feel of these motions for use at baseline, and are an example of knowledge acquisition (learning by doing) in the psychedelic sphere.

A final form of learning (learning by being) is encapsulated in the often repeated phenomena of what I call the "Be Me." In the fluid identity conditions of the psychedelic state, it is possible not only to view one's own "personality" as a complete pattern that one can slide in and out of, but other identities as well can be occupied for learning purposes. To see from another's viewpoint, to be in their viewpoint as distinct from whatever one considers one's own, feels like an act of instantaneous "tuning" to a complete, and completely unique

pattern, like slipping a different slide into the projector of consciousness. It is a practical application of multi-minding, in this case not among levels of conscious experience simultaneously perceived (double, triple, quadruple) but between identity patterns. Possession phenomena may be related, but in these controlled slip-sliding experiences there is no sense of being "taken over" or any amnesia associated with the switches. In the psychedelic school, these are lessons. These cross-identity experiences, whether from human self to animal identity, other human identity, or non-human—archetypal or alien—identity, can be characterized as a vivid deictic shift which brings the world of the identity into view, as if the word *world* were a verb, and these shifts an act of *worlding*. From within these shifts, new skills of being in a new world, and new knowledge of the world as projected and lived in by that identity, can be acquired.

At the far extremes of *worlding* lie the DMT experiences, in which one's tolerance for the *otherness* of the others and the unspeakable weirdness of their world is put to the test. Terence McKenna was fond of quoting evolutionary biologist J.B.S. Haldane: "I have no doubt that in reality the future will be vastly more surprising than anything I can imagine. Now my own suspicion is that the Universe is not only queerer than we suppose, but queerer than we can suppose." An earlier Terence, the Roman playwright, proclaimed, *Homo sum: humani nil a me alienum puto*. As a human who has had the DMT experience, therefore a human experience of the unspeakably alien, the question becomes, can I include this in my humanness? The fact that DMT occurs endogenously in my body explains nothing. How can I be something capable of this experience? How can I know that which is so profoundly strange? Is a quip the only skyhook out of the ontological dilemma?

In the psychedelic sphere, epistemology is an extreme sport.

13 Appendix VI: Extended Perception as Alien Art

This discussion relates the extraordinary vision-producing ability unleashed in consciousness by psychedelics, and the mystery of their origin to the presence of the Other in a conceit of this perceptual novelty and extravagance as alien art. Determination of whether the alien is an unknown (normally unconscious) aspect of the Self, an Other, or a blended configuration of Self and Other, can be held in abeyance as part of the high strangeness (alien quality) of the experience.

Alien art—including linguistic phenomena—is construed as an epistemological strategy of the Other in the psychedelic sphere for knowledge acquisition and transmission. This view is in sharp contrast to Kluver's notion of hallucinations as mechanically generated "form constants," abstract geometries with no semantic dimension *per se*. It is closer to the narrative and highly significant (for the experiencing individual) first person reports in Shanon's ayahuasca phenomenology (Shanon 2002). These aspects of alien art describe features of the perceptual field that can simultaneously involve cognitive processes accompanied by vivid feeling states; bodily sensations (or lack thereof); and the synaesthetic involvement of other senses. Alien art begins with conditions of extended perception, an ascending scale of effects from the sensory amplifications of cannabis and hashish through the full-scale wraparound realities of high-dose sessions of DMT, psilocybin mushrooms, and LSD.

Let shift—perception multiple dimensions interpenetrating—opening of every point into world we fall because the world is full of holes space/time fabric infinitely porous—empty—"a net is nothing but a lot of holes tied together by string"⁹¹ (AD_03.05.04 MDMA)

⁹¹ I am quoting Karl Wallenda, the *pater familias* of the tightrope act, The Flying Wallendas.

Human use of psychedelics has a history that appears to go back to the earliest signs of culture) in cave paintings, petroglyphs, and cultural artifacts in Europe, Africa, and the Americas. The interpretation of specific signs, designs, and figures—animal, human, and hybrid or therianthrope—is highly disputed, and largely irresolvable due to the absence of ethnographic confirmation. A well-regarded but still controversial hypothesis (as controversial as is virtually every interpretation of the meaning of rock art symbols and drawings) is forwarded by J. D. Lewis-Williams and T. A. Dowson (Lewis-Williams 1988). Lewis-Williams and Dowson link the rock art signs to so-called entoptic phenomena—visual form constants, following Kluver (1966)—that appear in ASC and are thought to have a neurological basis. Lewis-Williams differentiates these entoptic phenomena, “a range of visual percepts that are independent of light from an external source derived from the structure of the optic system anywhere from the eyeball to the cortex” from hallucination, which he defines as having no foundation in the actual structure of the optic system.

Unlike phosphenes and form constants, hallucinations include iconic visions of culturally controlled items such as animals, as well as somatic and aural experiences.

However, The universality of entoptic phenomena encourages us to construct a model of the ways in which mental imagery is perceived by people in certain altered states of consciousness. Ultimately, such a model should be relevant to all arts derived from these altered states. Because we are concerned principally with entoptics, we say less about iconic hallucinations, but the intimate relationship between the two must be clarified by any model that seeks to explain the imagery of altered states (Lewis-Williams 1988).

Lewis-Williams argues that San Bushman rock art (with its known connection with shamanic practices) and Paleolithic rock art (which cannot be

ethnographically validated) are connected by their formal similarities, and by those similarities to Kluver's form constants of entoptic phenomena.

[Appendix I, Figure 12]

Graham Hancock builds on Lewis-Williams model in his exposition of the world-wide phenomena of shamanic interactions with the Other (his "supernaturals") implicated as both the source and, in part, the objects of these global forms of "alien" art (Hancock 2005).

Clark Heinrich sees psychedelic mushroom imagery throughout the history of Christian religious painting, postulating an occult knowledge of the mushroom as sacrament, in fact, isomorphic with Christ, another approach to the idea of the mushroom as Logos (Heinrich 2002).

Schultes, Hofmann, and Rätsch's densely illustrated book, *Plants of the Gods*, contains numerous examples of the art that is made by those both ancient and contemporary, who have experienced the art of the spirit or alien encounter, enabled by a wide variety of psychoactive plants in the Americas (Schultes, Hoffmann et al. 1992).

All or much of Indian art, it has been proposed, is based on visionary experience. Colors, similarly, are symbolically significant: yellow or off-white has a seminal concept, indicating solar fertilization; red—color of the uterus, fire, heat—symbolized female fecundity; blue represents thought through Tobacco smoke. These colors accompany Ayahuasca intoxication and have precise interpretations. Many of the complicated rock engravings in the river valleys of the Vaupés region are undoubtedly based upon drug experiences (Schultes, Hoffmann et al. 1992).

[Appendix I, Figures 13 and 14.]

Strassman, et. al. draw the connections between the alien entity phenomena of the DMT experience, alien abduction reports, the Anunnakis of the mythology of ancient Sumer, and the Old Testament accounts of the Sons of God, arguing the case that the mechanism delivering these type of revelatory visions of the Other resides in spontaneous release of endogenous DMT.

the new narrative is synchronicities patchworking alignments that appear from exact viewpoints and are hidden otherwise the key to the work of art is in finding the correct viewpoint from which to view it aspects of alien art high Glide foolishness (AD_06.01.12 MDMA)

Shamanic art, worldwide, appears to be a collaboration with the alien Other, in its many forms, encountered in ASC. This alien art of the presentation of information is often accompanied by a set of qualities—aspects of extended perception. These qualities can include deeper, richer, more varied, more vivid or more subtle and in some cases completely novel colors that make up the visual palette. The complexity and density of the informational field is in part accompanied by an increased amount of very fine cognitive detail and a concomitant shift in the amount of detail from the sensory systems. Attention, a primary function of consciousness, presents a panoply of aesthetic choices, shifting its qualities, in some cases toward an increased slipperiness (hyperconductivity), sliding frictionlessly from one point of focus to another. At other times, attention becomes the ability to focus in stillness, to hold an awareness not only of the object(s) of contemplation but of awareness itself, a type of ‘witness consciousness’ or mindfulness that allows direct perception of the activity in one’s mind. One becomes aware that attention can partake of qualities like touch—rough, focused, gentle, smooth, and/or erotic and applied with various admixtures of emotion.

Another visual-cognitive quality that emerges is the layering of visual imagery. This can appear accompanied by subtle and shifting degrees of transparency and iridescence, of soft flows combined with extremely precise fine filamental structures and a sense of having X-ray vision and microscopic vision as controllable aspects of the visual field. Macroscopic visions of the structure of the cosmos at astronomical scales can also be presented to consciousness. Transparency becomes a metaphor for all manner of seeing-through, revealing in the combined sense of seductive veils and of revelation of

a truth, a hide-and seek God game of gnosis—now you see Me now you don't—of quest and question, a noetic dance in realms that stretch the labels and cognitive ordering schemes of natural language.

The high-information aspect of alien art is not a matter merely of quantity of information but information imbued with qualities such as fecundity, a sense of an abundance of creativity in the flood of images and ideas, and often a prevailing mood, of playfulness, or numinosity, benevolent and sinister in rapid oscillation, or strange juxtapositions of mood, such as sacred silliness or a combined cathedral and carnivalesque architecture, each mood generating a seemingly endless fount of aesthetic styles.

Patchworking describes a complex collage-like visual-cognitive process by which different, sometimes drastically diverse, bits of vision-knowledge begin to collect and arrange themselves into larger patterns that incorporate, recombine, and transform the meanings of the individual pieces. Quilt-making is such a process.

[Appendix I, Figure 15.]

The illustrated quilt brings together hundreds of diamond and triangular patches from discarded clothing, carefully re-cycled into a design that incorporates two and three-dimensional visual aspects. The design shifts depending on whether you view the material within the hexagons as flat six-pointed stars, or as baby blocks (Necker cubes). In the three-dimensional baby-blocks view, one can see two different perspectives. Each perspective in turn recombines the order of the perceived patches. The surface, playing with these illusions, shifts and moves dynamically among dimensions, as the different views pop in and out of the visual field.

A kaleidoscope, containing a handful of irregular bits and pieces of colored glass and other materials, constructs a complex, shifting, symmetrical, non-

repeating stained glass window of colored light. In my own session reports I describe patchworking as making

harmonious compositions out of impossibly disparate items without breaking the narrative dream but rather expanding its inclusiveness (AD_05.03.27 MDMA).

Patchworking in altered states assists in “layering realities,” and is

a practice to acclimate you to staying in multiple spaces that are incongruous, non-contiguous, seemingly dissonant (AD_05.04.01 hashish).

In other words, the patchworked visual designs are not just form constants, abstract patterns produced by the nervous system, or “psychedelic eye-candy” but imbued with a semantic dimension and a pedagogical intent. McKenna describes this patchworking aspect:

Occasionally I would seem to catch the mechanics of what was happening to us in action. Lines from half-forgotten movies and snippets of old science fiction, once consumed like popcorn, reappeared in collages of half-understood associations. Punch lines from old jokes and vaguely remembered dreams spiraled in a slow galaxy of interleaved memories and anticipations. From such experiences I concluded that whatever was happening, part of it involved all the information that we had ever accumulated, down to the most trivial details. The overwhelming impression was that something possibly from outer space or from another dimension was contacting us. *It was doing so through the peculiar means of using every thought in our heads to lead us into telepathically induced scenarios of extravagant imagining, or deep theoretical understandings, or in-depth scanning of strange times, places, and worlds.* The source of this unearthly contact was the *Stropharia cubensis* and our experiment [emphasis mine] (McKenna 1993).

Patchworking appears to be an aesthetic strategy whereby the Other, using the stored personal information, emotions, and memories of the individual, and adding its own utterly alien forms to the patchwork, constructs new forms and configurations of knowledge about our existing reality, its past and future, and about other worlds and other realities with profoundly alien—different from baseline reality—content. This alien content: vast machineries, strange energies, different time-space schemata, whole worlds operating on different physical principles, or our own world viewed from a profoundly different consciousness, reveals other rules of world-organization, such as underlying

structures of reality based on games. Patchworking, a form of hypnoia, ecstatically rejoins that which has been dismembered, fragmented, or never connected in the first place in meaningful patterns in a domain of visual language. As such it shares a functional pattern with the shamanic initiatory experience of dismemberment and rebirth in a new recombinatory body which can travel between worlds and hold consciousness of multiple worlds at once.

14 Appendix VII: Constructed Language Practices

The art of language creation is practiced by members of the Language Creation Society, a special interest group of self-described “language geeks” who call it “conlanging.” Conlanging (from constructed language) is obsessional, hermetic, and prolix, (the conlang mailing list carries very high traffic) and involves high levels of specialized expertise, especially in natural languages, linguistics, and semiotics, combined with the spirit of play. Many conlangers are graphically and artistically skilled as well; the creation of beautiful orthographies is part of the activities. This difference in viewpoint created a bifurcation in the original conlang mailing list: the auxlangers (perfection in language resembling denotative exactitude—the rational dispensation) ultimately went off to form their own list.

Benct Philip Jonsson put it this way on the very busy conlang mailing list:

To my mind at least conlanging is -- in spite of its solipsism -- a performing art. I'm not nearly as thrilled by reading a grammar of a conlang as of hearing the stories of how the conlanger discovered what the grammar looks like, and why. That's why to me the appropriate term for the art must be 'language construction', and the true sense of 'constructed language' is 'language which is being constructed' rather than 'language which has been constructed', since the thrill is in the journey, not in the destination, or even in the arrival. (Jonsson 2009)

Conlangers tend to see the Babel incident as a feature, not a bug, and a standard practice in the group, almost an initiation, is to translate the Babel text into your own conlang.⁹²

Conlangers point out that linguistic diversity is falling in parallel with biodiversity, “faster than ever before in human history”, according to Tove Skutnabb-Kangas of the University of Roskilde. Europe is the poorest continent in linguistic diversity, while “Indigenous peoples, minorities and linguistic minorities are the stewards of the world's linguistic diversity.”

⁹² An archive of Babel texts can be found at <http://www.langmaker.com/babel/babel.htm>

Nigeria alone has 410 languages; Papua New Guinea (850 languages) and Indonesia (670) between them hold 25% of the world's languages. Linguistic diversity and biodiversity are correlated; when one is high, the other generally is as well (Skutnabb-Kangas 2002). Languages are disappearing faster even than butterflies—except in the conlang community, where linguistic creation and experimentation is bubbling up out of a primordial soup of natlang (natural language) parts, with many mutations, variations, and hybridizations, as well as new orthographies (written systems that may or may not represent the sounds of a language). Emergent forms of languages—visual, both 2-dimensional and 3-dimensional, gestural, sculptural, languages with no spoken form, and lots of alien languages, are all part of the mix.

[Appendix I, Figure 30.]

J. R. R. Tolkien is the Shakespeare of conlanging. His essay, "A Secret Vice," details his own experiences and speculations about language creation, which possessed him from an early age. (Tolkien 1983) Many, if not most, conlangers began some form of the activity in childhood. Tolkien calls conlanging "a new art, or a new game" and indeed, the activity is perfectly suspended between these impulses. And secrecy plays itself out in various aspects, beginning perhaps with the delight of children in having secret languages and societies to bond their group, as Tolkien points out. Later come secret scripts for maintaining the privacy of journal writing. These secret languages are called by some "stealth-langs."

Deena Larsen's Rose language/code serves such purposes. In her own words: "It is based on English, but has 75 characters. Each letter has variations that connote emotion. When I write, I unconsciously use these forms. Then when I reread, I find out what I was feeling. Then I can get to my "inner thoughts."

[Appendix I, Figure 31]

A wry take on the secrecy—or privacy—of conlangs from “Leah” on the alt.language.artificial list:

As for a lang having interest to someone other than the creator, that can vary with time. When I finished my first conlang, I offered to teach it to people I know, and they refused, UNTIL I started keeping my personal journal exclusively in my conlang. THEN, the interest started. Of course, they want to spy on my most private thoughts. Therefore, my conlang became my stealth lang (Tolkein 1983).

Stealth language is also Tolkien’s term. For him, a stealth language can “satisfy either the need for limiting one’s intelligibility within circles whose bounds you can more or less control or estimate, or the fun found in this limitation. They serve the needs of a secret and persecuted society, or the queer instinct for pretending you belong to one.” (Think pidgins, creoles, slave languages). Tolkien began the *Silmarillion*, the first parts of his “mythology for England” and the mythical basis for *The Lord of the Rings*, during WWI, in hospital, recovering from the injuries and horrors of trench warfare in the Battle of Somme. Tolkien’s *Silmarillion* is the mythology of his Elvish languages, Quenya and Sindarin. For Tolkien, language and mythology are deeply intertwined.

I must fling out the view that for perfect construction of an art-language, it is found necessary to construct at least in outline a mythology concomitant. Not solely because some pieces of verse will inevitably be part of the (more or less) completed structure, but because the making of language and mythology are related functions; to give your language an individual flavour, it must have woven into it the threads of an individual mythology....The converse indeed is true, your language construction will breed a mythology (Tolkein 1983).

In contemporary conlanging, this principle is in force in a significant number of conlangs: they come hand in hand with the imagined worlds in which they communicate. Sally Caves, whose creation of Teonaht, a language and a world, began at age nine, expresses this principle eloquently:

Those unbitten by this bug will undoubtedly want to know why we do it: why invent something so intricate, so involved, that only a few people, maybe even no one, could ever share in its entirety? To begin such a thing is whimsical at best, but to persist in it is surely madness. However, I’m not alone in my pursuit. The discovery of the Conlang listserv devoted to glossopoeia or the artful construction of languages, introduced me to a world of compatriots who share my love of

language—not just the natural languages, but the experiments one could make with syntax, morphology, typology, lexicology, historicity, and myth. . . . glossopoeia is like building a strange, new, mythical city. You start with the foundations and move up, stone by stone. Or sometimes you start with the roof and work down. Sometimes your paths are crooked, others straight; sometimes you erect cathedrals, canals, and bridges. Sometimes you tear everything down and start over. Gradually it takes on a character and populace of its own, and all its own rules, and you come to know its streets and houses and people as unique. You have relexified your world⁹³ (Caves).

[Appendix I, Figure 32.]

Sai Emrys, founder of the Language Creation Society, posts a many-year, much revised “Design of an Ideal Language.” In his own words,

I make no presumption that my particular desires are in any way objectively best; only that one can objectively take a look at some particular set of desires, make tradeoffs where needed, and then go about fulfilling them optimally in a systematic way. There are therefore an infinite possible set of perfect languages, for each of an infinite set of desiderata. (Emrys 2006)

Deep linguistic chops—really knowing the rules—are Sylvia Sotomayor’s launching pad for breaking them with her conlang, Kēlen.

[Appendix I, Figures 33, 34, 35.]

Learning about universals made me wonder what a language would be like that violated them. So Kēlen became my laboratory for exploring the line between a human and a non-human language. There are a few inherent difficulties to this task. For one thing, since we haven’t found any intelligent aliens, there are no non-human languages to look at for comparison. So, my strategy was to take a universal and violate it (Sotomayor 2009).

Kēlen replaces verbs with a closed class of “relationals” that perform the syntactic function of verbs. Sotomayor has created, out of an early fascination with all things Celtic, several beautiful Kēlen scripts.

The great majority of conlangs produced by the Language Creation Society members are based on natural language formations. I will mention two conlangs that depart from this pattern, and could be considered xenolinguistic.

Denis Moscovitz’ Rikchik language is alien, not merely because its putative origin is the second planet of Alpha Centauri A.

⁹³ Sally Caves (as Professor Sarah Higley) is the author of *Hildegard of Bingen’s Unknown Language*. Conlanging, as well as music, was part of Hildegard’s productive frenzy.

The rikchik body consists of a large (~2 ft. diameter) sphere, which contains almost all the rikchik's organs, supported by 49 long (~6 ft.) tentacles. In the front of the sphere is a single eye with a circular eyelid. The 7 tentacles immediately below the eye are shorter and lighter, and are used for talking (Moscowitz 2009).

Rikchik is a signed or gestural language, with no sonic component, and written Rikchik is a speechless orthography. Moreover, the "signing" of a Rikchik is shaped by its physiology of multiple tentacles.⁹⁴ Rikchik explores the nuances of imagining language from a truly alien species.

[Appendix I, Figure 36.]

Sai Emrys and Alex Fink have developed a "gripping language," a kinesthetic stealth-lang "mediated entirely by touch, which allows two people to converse freely while appearing to be doing nothing more than holding hands." Finger motions include presses, rubs, thumb and global moves, and finger "chords." To my knowledge, it is completely unique in the world of conlanging (Emrys 2009).


⁹⁴ Rikchik is also unusual because it has been worked on by Dennis with his brother Marc. Pair/group conlanging is very much a rarity.

15 Appendix VIII: The Xenolinguists

Themes Associated with Four Symbolic Systems of Psychedelic Origin

The Xenolinguists	Allyson Grey: <i>Secret Writing</i>	Dennis and Terence McKenna: <i>Timewave Zero</i>	Diana Slattery: <i>Glide</i>	Jason Tucker: <i>Actual Contact</i>
I Ching		Extrapolation of fractal timewave from 1 st order differences in the King Wen Sequence of hexagrams	Extrapolation of binary I Ching (two strokes) into a ternary (three stroke) system	Just as synchronicity and "meaningful coincidence" is fundamental in the I-Ching, the act of automatic drawing is connected by that moment in time, possessing qualities that inform a "parallel event" of meaning
Translinguistic matter		Obsidian or violet fluids emitted from body in tryptamine trance; used for doing shamanic work	Deep blue or ultra-violet blobs; absorbed for energy in the psychedelic state	Biomorphic entities emitting - and exchanging - spheres (sometimes colorful)
Glossolalia-like Language automaticities		Sound of tryptamine state vocalized linguistically and producing images	Energy movement of tryptamine state (spiral wave movement of the Rainbow Serpent) gestural glossolalia; signing	Drawing the images is not a consciously creative act. It is an automatic physical engagement geared only to concentrate on hand / eye co-ordination and to affect a stroke.

The Xenolinguists	Allyson Grey: <i>Secret Writing</i>	Dennis and Terence McKenna: <i>Timewave Zero</i>	Diana Slattery: <i>Glide</i>	Jason Tucker: <i>Actual Contact</i>
Perception of Acceleration of Linguistic Evolution		Language in humans was an <i>ingression of novelty</i> ; language continuing to evolve toward the visual, and toward higher dimensional instantiations	Language continuing to evolve toward the visual, and toward higher dimensional instantiations	Consciousness and language are inexplicably tied together. Language of a new vision is symbolic, compressed information, communicating through simple forms a multiplicity of meaning; both archaic and evolving, able to contain opposites
Dimensionality		Figure 18B, IL. The timewave module as a dimensional leap (p. 143 IL); also closes the system (the modular wave) on itself	New dimensions of language; symbols move from 2D to 3D; from static to dynamic—both movement through space and morphing of form	Ethereal; fluid movement in a state of transformation
View of Natural Language		Papers reality over with words; holds all cultural conditioning in place.	Slow software	Language mediates our "reality"
Language and the Structure of Reality		Things such as that the normally invisible syntactical web that holds both language and the world together can condense or change its ontological status and become visible. Indeed there seems to be a parallel mental dimension in which everything is made of the stuff of visible language, a kind of universe next door inhabited by elves that sing themselves into existence and invite those who encounter them to do the same.	The body is linguistically organized; each level of language has its own strict syntax	

The Xenolinguists	Allyson Grey: <i>Secret Writing</i>	Dennis and Terence McKenna: <i>Timewave Zero</i>	Diana Slattery: <i>Glide</i>	Jason Tucker: <i>Actual Contact</i>
Alchemy		The Anthropos as the Resurrection Body; alchemical goal	The Anthropos as the evolved psychedelic person; lily glyph 	The cosmic Anthropos as a condensed symbol or pattern rising from both the density of media and a persons capacity to hold opposites
Logical systems		Forward and backward moving timewave module; logic of change and the ingression and conservation of novelty	Ternary logic; addition of third stroke—the wave of change; evolution of novel forms; the biologic of living systems	Tao logic, Heraclitus; contraries are the same by virtue of one thing changing to another; "All is flux," nothing is stationary
Perceptual Modalities		Aural and Visual, aural becoming visual; visual puns	Visual, polysemic glyphs, multiple metaphors simultaneously presented	Visual
Divination		Predicting incursions of novelty	Glide Oracle of doubled 3-stroke glyphs	Artistic divination
The Other		Contact with in the E@LC triggers I Ching exploration and development of Timewave in dialogue with the Other	Download of Glide symbolic system; development of Glide in dialogue with the Other	Archetypes of the Other are present in the work; and the act of drawing the image itself is described as being in participation with an Other. Cellular ancestral-like patterns merge with alien-like imagery (and/or our future selves) and interact in a complex social network; a composite psyche made up of many entities

The Xenolinguists	Allyson Grey: <i>Secret Writing</i>	Dennis and Terence McKenna: <i>Timewave Zero</i>	Diana Slattery: <i>Glide</i>	Jason Tucker: <i>Actual Contact</i>
DNA—the Self-describing Language		Our model is, first, an effort to trace the logic of these experiences in terms relevant to the molecular levels where the experimental superconductive intercalation of harmine may have taken place. The content of our experience has resolved itself into the logical consequences that flow from the "revealed" axiom that all phenomena are at root constellated by a waveform that is the hierarchical summation of its constituent parts, morphogenetic patterns related to those in DNA.	DNA as living language and the language of life; <i>Glide</i> explaining it/self in the unpacking; the rainbow serpent	
The Eschaton 2012		All archetypes converge at this attractor: Whitehead's concrescence, vortex, philosopher's stone, <i>Self in the Jungian sense</i> , Anthropos, the resurrection body, Christ. Point of maximum novelty and densest information. End of history; end of Mayan calendar; the eschaton; the hyperdimensional object at the end of time; The spiral implosion of time may entail the universe, and every entity in it, meeting and canceling its antimatter double to create, through this union of opposite, an ontological mutation from matter to photonic form, which represents tremendous freedom.	Eschaton as the end of human games as played through history; making of a new game by fully psychedelic persons. End of history = completion of a game level (3-dimensional existence) and passage to or participation in new game levels of higher dimensional status. Predicts end of human game as currently played, not pinned to date	Principle thread is one of empathy, transformation, and a symbol of "renewed archetypal significance." Dissolving of boundaries; Whitehead's concrescence; cellular entities are disjunctively many in process of forming into a conjunctive unity. Jose Arguelles and Terence McKenna, the architects of 2012 as a possible "transformation," anticipated and theorized about the creation of higher symbolic languages evolving toward the visual through the use of psychedelics.

The Xenolinguists	Allyson Grey: <i>Secret Writing</i>	Dennis and Terence McKenna: <i>Timewave Zero</i>	Diana Slattery: <i>Glide</i>	Jason Tucker: <i>Actual Contact</i>
Fractal Structure and Scalar Awareness		Time not "pure duration" but fractal	Biological structured fractally and linguistic; Varela end of Calculus paper; Glides say: "You have an inadequate concept of time."	Fractal in the sense that the process in art is the same as in nature.
Wave Structures		Modular fractal waves of time constructed from King Wen sequence; Huang on the waves of meaning in the King Wen sequence; figure 18B, IL. The wave going forward and backward, and closing itself with a twist is the wave of transformation.	Glide a language of waves of transformation; in drawings, the energy of the Rainbow Serpent. LiveGlide's morphology is the spiral wave. The degree of twist of the wave, is called twing. This morphology resembles a more abstract and less constrained form of DNA structure. LiveGlide is writing with spiral waves	Waveforms in the drawings; contact with entities
Psychedelic Origin of Language	I started painting spectral squares in the late 70's after an acid trip I shared with Alex, which pointed us both in the direction of portraying the multi-colored strands of light energy that formed a vista of interconnected fountains and drains, flowing in a pattern that spread to infinity in all directions.	"Shaggy primate story"—early ingestion of psychoactive plants and/or fungi and the contact with the tremendum catalyzes language	Psychedelics catalyzing new linguistic forms in the present: VR, computer graphics; programming languages; Glide in turn emerging from these new media	A synthesis of language, art, alchemy, shamanism, alien contact, and the ritual use of psychedelics.

The Xenolinguists	Allyson Grey: <i>Secret Writing</i>	Dennis and Terence McKenna: <i>Timewave Zero</i>	Diana Slattery: <i>Glide</i>	Jason Tucker: <i>Actual Contact</i>
Ethical Dimension		We believe that by using such ideas as a compass for the collectivity, we may find our way back to a new model in time to reverse the progressive worldwide alienation that is fast turning into an ecocidal planetary crisis. A model of time must give hope and overcome entropy in its formal composition. In other words, it must mathematically secure the <i>reasonableness</i> of hope. This theory, and indeed the mathematical theory of dynamic systems generally, does this by securing in a formal manner the process by which transformation can naturally arise and persist out of a background of flux."	Glide is the language to unify the minds. Models connectedness and transformation.	
Connectedness	Secret writing symbolizes all communication and creativity -- the unutterable truth beyond language that is pointed to by sacred text.	These time maps or novelty maps show the ebb and flow of connectedness or novelty in any span of time from a few days to tens of millennia.	Hyperconnectivity, link-seeking behavior, glide mazes as dynamic, hyperconnective structures. The myceliation of consciousness. Models dense webs of interconnectness of life	

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