

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF ANTHROPOLOGY

**MESOAMERICAN ETHNOMEDICINE: ECSTATIC CHIRON AND THE USE
OF TRADITIONAL MEDICINES FROM ANCIENT TO MODERN TIMES**

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Spring 2013

A thesis
submitted in partial fulfillment
of the requirements
for baccalaureate degrees
in Anthropology and International Studies
with honors in Anthropology

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ABSTRACT

This thesis, entitled *Mesoamerican Ethnomedicine: Ecstatic Chiron and the Use of Traditional Medicines from Ancient to Modern Times*, is a history and analysis of the traditional Mayan and Aztec culture of medicine, from the ancient days to modern times. It first outlines the beginnings and cross-cultural principles of shamanism in general, describing its overarching themes and characteristics, including a shaman's rite of passage and essential Self-transformation and the importance of entheogens used in divining the cause of illness and in healing.

It then delves into the rich and very old tradition of the ethnomedicine of the Maya and Aztecs of Mesoamerica, the main ideas of which are described through a brief depiction of their worldviews as related to medicine and healing. This wealth of information was gathered from a variety of historical, archaeological, and oral sources and helps to explain Mesoamerican healing, including divining the cause of illness and the use of entheogens and other plants and practices used in healing.

After describing the ethnomedical tradition of the Maya and Aztecs, the modern continuation of these ancient Mesoamerican shamanistic and medicinal practices is outlined, illustrating the importance of the modern healer, or *curandero*, for the maintenance of health. This thesis concludes with the importance and need of an integration of these ancient practices with modern biomedicine and the value of a combined, global system of medicine—a vast, human heritage of medical knowledge that should be created for the benefit and the healing of all of mankind.

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ACKNOWLEDGEMENTS

This thesis, requiring hours and months of planning, questioning, and research (and the use of self-bribery in the form of chocolate—which can itself be seen as a form of ethnomedicine!), was no small feat; it is in fact the largest and most complex work of my developing academic career.

For his support, feedback and criticism, wealth of related resources (and excellent unrelated ones as well!), wonderful course on Mesoamerican archaeology, and intriguing stories, I would like to warmly thank Dr. David Webster. This composition would not have been the same (or as fun to create) without your support.

I would also like to thank my wonderful family for its interest and support throughout this long process and for teaching me of the importance of maintaining a healthy lifestyle—physically, mentally, and spiritually—and of the happiness and sense of overall wellbeing that comes as a result of it. Thank you for always challenging and encouraging me! I am truly fortunate.

Chapter 1

Introduction: Great Medicine

*I live in the crack of an egg—
in the space between galaxies
and earth mud.*

*Along the thin borders
of enlightenment and
darkness.*

*I saw through the smoky mirror,
and my third eye winked at me!*

-Elena Avila, from Woman Who Glows in the Dark (Avila n.p.)

I was empty of energy, listless, confused. I sat, limp, on the crinkly white paper, in that white room, with the bright white lights blurring my vision, bewildering my already fever-stricken head. I was staring at the large doctor in front of me, who was gazing into his computer screen and speaking to me with a detached air, as if to himself or his laptop and not to the patient next to him. I believed that I had another case of strep throat, which visited me almost yearly; it had spread an infection throughout my body, which by now was slowly beginning to retreat. He had me take two tests and was urging me to take antibiotics immediately, whether I had strep throat or not. I began to ask him so many questions: what is the difference between the findings of the rapid-result test versus the long-result test? Which is more accurate? What should I do to prevent this occurrence in the future? How could I make it go away at the onset? Why take antibiotics if I don't know if it's a bacterial infection?

This active interest in healing myself without resorting immediately to drugs and following everything he advised perplexed and surprised him. I wasn't comfortable with simply

taking a doctor's opinion, thanking him, and leaving with whatever drugs he prescribed. I wanted to know what he wanted me to put into my body, and why, and if it was truly needed. He sportingly answered my questions and asked what I had been doing up until then to alleviate my pain. In response to hearing that I had been drinking hot tea with lemon and honey, gargling with warm salt water as a disinfectant (as prescribed by the women in my family), and eating colorful fruits and vegetables for Vitamin C, he asked if I was "one of those natural medicine people." I thought about it. Maybe in some ways, I am. But his tone was mocking, as if he were contemptuous of the health practices of my family, as if they were inferior to his prescriptions because his were backed by science and logic and that glowing machine in front of him. But where do his sensible, logical cures come from? Nature. From the world around us. Highly separated from it no doubt, isolated, hermetically sealed and factory-manufactured until there is little resemblance between those white pills and the curative mold, but nevertheless, they come from nature as well.

So many of us have an automatic respect and acceptance of Western medicine. This response is ingrained into us, is part of our culture. So many of us don't ask many questions, don't try to understand or get a more complete picture of what we are consuming or what we allow to be done to our bodies to as a "cure." While these medications and procedures often do work, there are often accompanied by a host of unwanted side-effects that do not always manifest themselves. And this type of practice does not cure us holistically.

Curandera ("healer") and psychiatric nurse Elena Avila, the self-labeled "woman of two worlds"—those of Western medicine and traditional Mesoamerican healing—recently stated in her book, *Woman Who Glows in the Dark*:

True medicine is not just passively accepting an herbal tea or a pill from a practitioner who has no knowledge of natural living...A medical system that encourages people not to ask questions and to accept blindly the treatments and prescriptions of a doctor, and teaches nothing about preventative measures, nutrition, or how to maintain emotional health is lacking in the basic tenets of

health *care*...[Every person] already possesses the ‘greatest medicine’ within [herself]. No one can really cure another human being. True healing is always a *co-creation* between the client and healer...[it] must go deep and take time to be permanent...[The soul—which can be viewed to those more scientifically and less spiritually inclined as the psyche—] will always find ways to manifest its hurts, regardless of what is cured...Only a medicine that deals with the whole being can effectively create a whole cure (Avila 37-39).

Shamanism, the oldest form of healing practice of which we know, deals with the *whole* being. The Aztecs have a word—*Wewepahтли*, or “Greatest Medicine”—which is a practice that continues today and which describes the healing, maintenance, and balance of the body, spirit, and emotions (Avila 16). This holistic practice has existed in many times and many places, but what exactly *is* it? Individuals today view this shamanism as a form of magic or superstition, as the practices of an ignorant or scientifically backward people, as a cultural conviction. But it is often something much greater and harder to understand for those of us born and indoctrinated into the secular, proven logic of Western society.

Chapter 2

The Origins of Shamanism

The ancient Tungusic peoples of Siberia, who still exist today, practice shamanism in its truest or most complete form. This culture is the source of legendary shamans, witnessed and recorded by stunned travelers to the Northland in the few centuries past. Maya shamanism and the later Aztec shamanism were not both located in the same regions of Mesoamerica, but they are relatively similar—to each other and to the Tungusic form—through their worldview and shamanic beliefs and practices, as evidenced through historical primary sources, archaeological finds, and the continuation of ancient healing practices into modern times.

As the oldest known form of healing practice, shamanism almost always exists in animistic societies, which believe that gods and spirits are everywhere and can inhabit the living and nonliving. Shamanic art and symbolic figures—dancing and in trances—dating to Paleolithic times have been discovered in early caves in France (Halifax 2). The role of a shaman can be occupied by a man or woman, and although in many tribes he may not be the sole spiritual leader, practicing alongside priests and heads of family, he is usually the dominant one; shamanism may also live alongside other forms of magic and religion (Evans 65; Eliade, Trask, and Doniger 4-5).

Medicine person, magician, priest, mystic, or psychopomp (Greek for “soul conductor,” one who conducts souls to the place of the dead and is the spiritual guide of a living person’s soul) a shaman may be known by many names depending upon his society, and may embody any or all of these roles (Eliade, Trask, and Doniger 4; *Psychopomp*). This healer is a contemplative ecstatic, the master of ecstasy, as shamanism is considered a technique of ecstasy (Eliade, Trask, and Doniger 4; Halifax 7). His domain is a trance in which his soul is believed to leave the body

and travel into the upperworld or underworld where his soul communicates with spirits: nature spirits, dead ancestors, gods, demons, etc. (Eliade, Trask, and Doniger 5-6).

Our word “shaman” comes from the Siberian Tungusic word *šaman*, where a shaman is a person connected to the spirit world who practices divination, healing, and ritual, in which he often needs to enter a trance state (*Shaman*). Nicolaas Witsen, a 17th century Dutch explorer in Siberia, introduced the word “schaman” to the West after he observed a healing ritual for a sick person of the tribe—during which he was “horrified by the satanic nocturnal dancing, drumming, leaping, and screaming of a ‘Priest of the Devil’ adorned in a furry costume that made him seem half-human, half-animal.” In his 1692 book *Noord en Ooest Tartaryen*, he gave his account and included a drawing of the “Devil-Priest” as a kind of monstrous werewolf (Noll and Shi 1).



Figure 1. Tungusic Shaman or Devil-Priest from Nicolaas Witsen’s 1692 book of his travels. Source: Flaherty 24.

After his book reached the West, the Tungusic peoples and their terrifying shamans became legendary, and Tungusic shamans were seen as the most powerful of all shamans. Siberian shamanism is also considered the most complete form, containing the most individual elements of shamanism, which became part of Tungusic ideology and worldview; these elements include: communication with “spirits,” magical flight during ecstatic trance, ascending into the

sky or upperworld and descending into the lower levels or underworld, and mastery over fire (Eliade, Trask, and Doniger 6). This Siberian shaman is a healer, spiritual channel, and leader of modes of sustenance (hunting and collecting). The peoples of Siberia and Northern Asia have a pantheon of gods, among which is a celestial Great God, who rules from the highest sky and commands his sons or messengers, who occupy lower levels, to the mortal realms. Since Native Americans are descended from Late Pleistocene northeast Asians, Native Americans like the Maya and Aztecs peoples inherited and continue these spiritual practices and beliefs (Evans 65; Eliade, Trask, and Doniger 9).

Chapter 3

A Shaman's Rite of Passage and Transformation

Traditionally, shamans draw on a combination of spiritual and physical healing; they use spiritual healing to cure unrest or sickness in the physical world and then, treat their patients with natural and herbal medicines. A shaman “experiences the sacred with greater intensity than the rest of his people; [he] embodies the sacred because [he] lives it so strongly” (Eliade, Trask, and Doniger 32). Shamanism is therefore a cultural combination of religion or spirituality and science or medicine, with the shaman at the crossroads as mediator for his people between the spiritual and material worlds.

Just as there is often a rite of passage in many cultures for transitioning an individual from youth to an adult member of society, a shaman himself goes through a special transformation to attain his important role as ecstatic mediator between the worlds. The intermediary either inherits or is recruited into his position—often the rarer modes—or it may occur through the will of the “gods” or “spirits,” through a rare childhood gift, spontaneously or intentionally during a ritual event or vision quest, or by recovering from a severe and transformative sickness. Among the Tungus, it may also be at the bidding of the clan depending upon the potential shaman’s ecstatic experiences; however, self-created shamans are viewed as less powerful than shamans selected through the will of the gods (Halifax 2; Eliade, Trask, and Doniger 13). This “calling” marks the beginning of a shaman’s rite of passage.

A deathly illness leading to a shamanic metamorphosis is one of the most cross-culturally common and dramatic ways of initiation. Carl Jung labeled the journey of one who makes it through this crisis as the “Wounded Healer” archetype, which is both dangerous and necessary in

order to become a shaman (Burns 126). During this critical process, a shaman encounters great psychological and physical suffering, during which his brain is in a way changed, rewired, and made more receptive to everything around him. Jung stated, “the doctor is to change himself if he is to become capable of changing his patient...a good half of every treatment that probes at all deeply consists in the doctor’s examining himself...it is his own hurt that gives a measure of his power to heal. This, and nothing else, is the meaning of the Greek myth of the wounded physician” (Krause, Sulz, and Holmes 146). Jung referred here to the centaur Chiron of Greek mythology—the astrologer, initiator of healers, astrologers, and warriors, and founder of natural medicine and energetic healing. “Cheir” means “hand” in Greek and relates to healing by using the hands on a patient. Chiropractic, chiromancy (divination), the chiral weave (the energy that is said to move between the hands of healers), and chirurgery (another spelling for surgery in French and English) all use a form of this mythological healer’s name. Chiron himself became the original “Wounded Healer” after he pricked himself with one of Hercules’ poisoned arrows and continued to work through his pain to heal others. (Clow and Clow 231-232).

A critical part of shamanic transformation is the brutal physical and psychological suffering—called shamanic initiatory crisis. Depending on the potential shaman’s resilience, this crisis may either become a rite of passage that begins with a man or woman and produces a shaman, or it may end in mental or physical collapse and destruction. If the shaman is able to persevere and survive all the way to the end, his psyche is adapted or becomes rearranged, he becomes stronger from the process, and is consumed with the urge to heal. Joan Halifax—anthropologist and studier of shamanism from teachers and doctors in “remote regions of this Earth”—studied shamanic initiation and even participated through her own psychophysical experiences, using LSD psychotherapy to truly see for herself the processes that a potential shaman may experience when going through initiation. She later compared the initiatory crisis to a kind of schizophrenia, the journey of mythic heroes, death-rebirth experiences, LSD

experiences, and ecstatic meditation experiences. During her own observations and experiences, she found that personal suffering helps one relate to the suffering of all things and deeply encourages oneself to help and to heal others (Halifax 2).

Halifax was also able to recognize and chart the general stages of the archetypal journey, recording what she called a “map of a deeper territory into the unconscious.” She simplified this journey into the following six stages:

1. Isolation/separation from society
2. Mental and physical suffering
3. Death
4. Nature-transmission
5. Return to life
6. Return to society

Shamanic initiation and initiatory crisis begins with the experience of separation or isolation from society and from one’s culture. This occurs because of an illness (often symbolized as abduction by a spirit or animal) or becoming lost in the wild, or from the society’s ritual prescription; during this isolation, the individual transitions from involvement in the everyday world to a focus on the inner psychological or visionary self rooted in the unconscious. The second stage is an encounter with extreme mental and physical suffering, often from an affliction, infirmity, or nervous disorder; or from the feeling of being eaten, burned, or torn apart or carried to the Underworld or Otherworld by spirits (which was often seen as dangerous and terrifying); or from a fatal threat by the elements or by wildlife. This is a crisis during which one experiences “a depth of loneliness that verges on extinction.” According to Jung, the Underworld represents the “Shadow,” the unexpressed part of the human psyche, which is faintly integrated into culture through the means of mythology and ceremony, in which the shaman is the “master of the unexpressed, a master of the darkness, of night, of the Underworld, of death and suffering” (Halifax 3-7).

The third step of the cross-cultural shamanic initiatory crisis is an encounter with death, where one is driven to psychological and physical extremes. This is followed by the stage in which the person's intense trials make him vulnerable to his subconscious and to other perceived beings or presences around him. This results in an experience of nature-transmission with surrounding animals, ancestor spirits, spirit-gods, and natural elements, during which "the eyes of the shaman open when he or she has entered soul's dark night." The shaman is subject to extended sleeplessness, in which there is a loose boundary between sleeping and waking states, and he mentally floats in a twilight zone in which his mind experiences a whirl of ideas and omens. Once his eyes are "opened," he sees supernatural significance in everything all around him, becoming the "extreme" animist. He sees his environment teeming with hierophanies—manifestations of the sacred, from the Greek for "to show or reveal the sacred—in which certain objects (animals, trees, stones, a place, etc.) are viewed as imbued with the sacred and so become separated from the surrounding cosmic composition; the metamorphosing shaman extracts deeper, spiritual meaning from these hierophanies. The enlightened individual may then see meaning or omens in all three levels of the universe: from stars, eclipses, comets, and lightening from the upperworld; movements or actions of animals and elements on the earth; and messages or "appearances" from deceased ancestors or previous shamans in dreams or trances. Just as the transforming shaman recognizes hierophanies all around him, he himself becomes a hierophany, a channel for the sacred, communicating with and interpreting for his people the messages of the "spirits." During this nature-transmission, a shaman metamorphoses from pre-"choice," profane individual to a tool of and worker for the sacred (Halifax 3-7; *Hierophany*; Howels 69-70, 79; Eliade, Trask and Doniger 33).

The fifth stage of a shaman's journey marks a return to life. This is thought to sometimes occur by way of the Celestial Realm—through the World Tree or *Axis Mundi*, which goes through all three levels of the universe, or by means of bird flight. This journey through the

celestial realm represents his journey of consciousness back to his physical self. Birds in this case become psychopomps; just as the World Tree soars high into the sky or descends into the underworld, birds have the ecstatic ability to journey to other worlds, realms, or states of being. The World Tree appears in the mythology and worldviews of many cultures, both past and present; it is a metaphor for the channel or means for interaction of and communication with hierophanies and movement between the planes. As a breakthrough in the planes, it is considered sacred space. The peoples of the north consider the Polar Star the Pillar of the Sky or *Axis Mundi* and perceive it as the “hole in the sky;” this sacred hole is paralleled in the dwellings of the people, in the form of the central pillar of conical huts or as the smoke hole in yurts. In the Tungus legend of the creation of shamans, the first shaman created himself with his own power and the power of a demon; he flew out of the roof hole in his yurt and returned with swans as companions. This World Tree became a symbol of life and immortality because it is considered the sacred center of the world and represents fertility, creation, and the continual regeneration and sacredness of the universe. It is believed that only shamans, during ecstatic trance, know how to travel spiritually through this opening between the worlds. The sixth and final stage of the metamorphic journey is a return to society as Healer (Halifax 3-7; Eliade, Trask, and Doniger 68, 98, 261-262).

Joan Halifax has argued that a shaman is not in fact a wounded healer, but a “healed healer,” “one who has gained personal knowledge of disease through the direct experience of suffering...during which [his] encounter with illness, suffering, and death not only opens the world of gods to the shaman, it also provides an experiential ground for the work of social, personal, and environmental healing that the shaman will later be doing.” She labeled shamanic initiatory crisis as a journey of chaos, in which “unusual states of psychological, physical, and spiritual strength” then allow the shaman to become heartier, more gifted, and wiser than the other people in his society. In this way, a shaman’s suffering during this dangerous and necessary

crisis, such as feelings of defeat and failing strength, becomes the strong foundation of his power (Halifax 1-2).

Once—and if—a shaman passes through the initiation ordeal, he is open to training and reception of shamanic knowledge. This can occur in two distinct modes, and the shaman may undergo one or both. His knowledge and power may be acquired through ecstatic experience with the spirit world—by means of hallucinations, sickness, near death experiences, or dreams. He may also acquire his skills from traditional knowledge passed down by previous shamans, in which he learns shamanic techniques, names and roles of the spirits, mythology, the genealogy of his people, and a secret language known by shamans for use in communication with nature spirits (Eliade, Trask, and Doniger 13).

Chapter 4

Shamanistic Use of Entheogens for Healing

Shamanistic societies maintain the belief that spirits exist everywhere and can be good or evil (Eliade, Trask, and Doniger 5-8). Their shamans are able to communicate with these “spirits” by altering their states of consciousness and going into ecstatic trance. This is accomplished through autohypnosis, ingestion of entheogens, or a combination of the two. Autohypnosis involves music, singing, dancing, vigils, fasting, vision quests, sweat lodges, or physical stress to go into a trance; various paraphernalia may also be used, such as a drum, pipe, rattle, or feathers, as birds are considered messengers of the spirits (Evans 65).

“Entheogen” is Greek for “becoming god within,” or “that which causes the divine to be within an individual,” and it is a chemical substance, usually from a plant, that is consumed to produce an altered state of consciousness for religious or spiritual purposes; some of the most common forms of entheogen are tobacco, cannabis, sage, psilocybin mushrooms, and alcohol (*Entheogen*; Miller n.p.). In 1979, a group of ethnobotanists and mythology scholars coined this word to be used as a replacement for “hallucinogen” and “psychedelic,” to dissociate certain ritualistic drugs from the prejudices and recreational use of drugs popularized by 1960s pop culture. The assembly understood and found it objectionable that entheogens were being equated with drugs labeled “hallucinogens” and “psychedelics” because shamans do not use entheogens for frivolous reasons. The group stated that “‘psychedelic’...suffers the same problem as ‘psychotropic,’ which tends to mean something that ‘turns one toward psychotic states’ instead of merely toward an altered mentality.” As for “hallucinogen,” which comes from the Latin for “to wander mentally” or “talk nonsensically,” they stated, “How can such a term allow one to discuss

without bias those transcendent and beatific states of communion with deity that numerous peoples believe they or their shamans attain through the ingestion of what we now call ‘hallucinogens?’” They therefore created a term to describe the substances taken to induce “transcendent and beatific states...[of] shamanic and ecstatic possession.” According to the assembly,

Only those vision-producing drugs that can be shown to have figured in shamanic or religious rites would be designated entheogens, but in a looser sense, the term could also be applied to other drugs, both natural and artificial, that induce alterations of consciousness similar to those documented for ritual ingestion of traditional entheogens; used to describe the condition that follows when one is inspired and possessed by the god that has entered one’s body. It was applied to prophetic seizures, erotic passion, and artistic creation, as well as to those religious rites in which mystical states were experienced through the ingestion of substances that were trans-substantial with the deity (Ruck et al. 145-146).

In keeping with this terminology in this paper, substances consumed to bring about ecstatic trances and ritual communion with the supernatural will be deemed “entheogens.” In shamanic societies, individuals in some way consume certain entheogens to go into a trance or an ecstatic vision quest in which the soul is believed to leave the body and travel to different planes or become more sensitive or open to surrounding hierophanies. During this ecstatic experience, one perceives time differently, is almost freed from it, and is able to perform divination and communicate with the supernatural or spirit world to find knowledge, help, and answers to discover causes of sickness, comprehend the diagnosis, and heal (Eliade, Trask, and Doniger 70; Montellano 70). According to cultural tradition, the shaman in trance may also treat sickness caused by evil spirits or spiritually enter the body of a patient to discover and banish the harmful spirit causing the sickness, using hierophanic animals as spirit guides, omens, or messengers (Eliade, Trask, and Doniger 5-8).

Divination is an important part of a shaman’s role in society. The word “divination” comes from the Latin *divinus*, or “divine;” it means “to discover, foresee, be inspired

by a god, or to have supernatural or magical insight into future events” (*Divine*). In shamanic societies, divination may take many forms, such as scrying or casting bones or similar ritual objects (Eliade, Trask, and Doniger 5-8). Texcatlipoca, a major Mesoamerican deity, was the patron of shamans and sorcerers and others who practice magic; he is the malevolent trickster god who embodied the role of the “eternal shaman—capricious, clever, ever changing shape and form.” His name means “Smoking Mirror,” a reference to a popular Mesoamerica scrying device which also glinted reflected light and caused smoke and fire; these qualities reflected a shaman’s apparent control over the natural environment and spirit world, as “movement identified [smoke and fire] as vectors of the life spirit” (Mille n.p.; Evans 65, 103). A shaman often uses entheogens to perform divination of certain events, such as the reason for a sickness and a patient’s future outcome.

As a mediator between the physical and spiritual worlds, a shaman undergoes many significant risks. He must first withstand the shamanic initiatory crisis, during which his Self undergoes physical illness and psychological collapse, potentially ending in devastating destruction. The methods used to alter a shaman’s state of consciousness must be carefully consumed; many entheogens are toxic and fatal if used incorrectly. The 16th century priest, Bernardino de Sahagun, wrote that many of the Psilocybin mushrooms used by the Aztecs caused rectal bleeding, paralysis, or death—but in the proper amounts were used for medicinal purposes (Aguilar-Moreno 361). Sometimes, a shaman also may not be able to return from an out-of-body “journey” and die as a result; in modern terms, this would be called an overdose. The Aztecs divided insanity into two categories: “passive insanity”—mental illnesses such as schizophrenia—and “active insanity,” or *xolopeyotl*—which includes *peyotl*, the Nahuatl word for peyote. This active insanity is caused by the incorrect consumption of any number of Mesoamerica’s indigenous narcotics—such as jimson weed, Psilocybin mushrooms, and peyote—often used as medicine, poison, or in ritual contexts as entheogens. For active insanity,

the Aztecs prescribed a cure of anti-toxins, purgatives, and withdrawal. A shaman must endure many risks and hardships throughout his journey, but if he makes it through his initiation and training, he then becomes a great healer and spiritual mediator for his people (Schendel 49-50).

Chapter 5

The Mesoamerican Shamanistic Tradition

Some of the most advanced forms of shamanism and medicinal and ritual healing occurred in Mesoamerica, among the Maya and later the Aztecs. Classic Maya culture lasted from around 250 AD to 900 AD, throughout areas of Mexico, Honduras, Guatemala, El Salvador, and Belize. According to the *Popol Vuh*, the book containing the Maya creation myth, humans were made from white and yellow corn by the earliest gods after the creation of the world and the animals (Bartlett 196).

The peak of Aztec rule occurred between the 15th and 16th centuries, in the area of modern central Mexico, which was then dominated by the Triple Alliance, composed of the Mexica of Tenochtitlan, the Acolhuas of Texcoco, and the Tepanecs of Tlacopan; this Alliance was hierarchical, centralized, and dominated by Tenochtitlan and the Mexica. The Mexica creation myth involved the gods' sacrifice to create the universe and mankind; according to this worldview, humans are made of god-stuff. The Mexica believed that to repay the gods' ultimate sacrifice for humankind and to maintain balance in the universe, sacrifice was required. Their worldview involved three planes: celestial, terrestrial, and the underworld. The Celestial plane had 13 levels, each dwelling places of different elements and entities (Aguilar-Moreno 138). The plane of humankind made up the first level of both the upper and lower worlds; it was divided into four quadrants with the *axis mundi*, or World Tree, going through all three of the planes, connecting the terrestrial plane of the mortals to the spirits of the Upperworld and Underworld. The World Tree was seen as a major entryway of the gods and their influences into the mortal realm and is described in shamanistic initiatory crisis—souls were believed to traverse this World

Tree to travel between the planes and return back to the world of the living (Aguilar-Moreno 138, 203, 304; Halifax 3-7). The Aztecs believed that there were other physical entrances into the Underworld; mythologically, they viewed this entrance as the mouth of a gigantic toad that devoured the dead, so caves and springs were seen as the “mouth of the toad,” or openings into the Underworld (Evans 34). The Aztec Underworld consisted of nine layers beginning with the earth’s surface, with the dead residing forever in Mictlan, the grim ninth level (Aguilar-Moreno 139). Mexica gods were believed to be almost cosmic forces or energies, and spiritual belief revolved around the idea that the “balance and movement of energies both human and divine, [was] very sacred.” As such, the universe, divided into its four quadrants, held at its center *Ometeotl*, God of Duality, as the sum of all of this universal energy (Avila 33-34).

Maya and Aztec shamans, as the spiritual channel for their people, had access to this universal energy. Maya shamans were known as *ah-men* or *al-pul-yaah*. *Ah-men* is translated as “one who does or makes,” and an *ah-men* is one who communicates with the spirits on behalf of his people. They continue today, especially in the Yucatán region of Mexico, as described by the anthropologist Marianna Kunow from her six trips to the region during which she interviewed multiple Yucatán healers (Kunow 21, 50). An *al-pul-yaah* was a “disease-thrower” or sorcerer who would “cause” disease, such as yellow fever, in return for payment; they were usually males and solitary and were much feared and despised (Kunow 42, 44; Sharer and Traxler 750; Roys 23).

Aztec shamans performed the roles of medicine man, physician, or sorcerer (Aguilar-Moreno 359-360). The 16th century Franciscan friar Bernardino de Sahagun spent more than two decades compiling his book *The General History of the Things of New Spain*, now also called the *Florentine Codex*, for which he gathered information from the Aztecs through questions, interviews, and observations. In Spanish and Nahuatl, he recorded Aztec culture, society, ritual, worldview, and history, contained in 12 books. Book two of the *Florentine Codex* is about

Mexica ceremonies, the fourth book described the roles of soothsayers or fortune-tellers, and book five explained omens and the art of interpreting them; books 10 and 11 include segments on human anatomy, a detailed portion on bodily functions, and long pieces on disease and medicinal plant remedies as dictated by Aztec “doctors” (Sahagun n.p.).

The *curandera* and psychiatric nurse Elena Avila discussed in her book these ancient Aztec teachings passed down over the centuries. This *Wewepahтли*, or “Greatest Medicine,” is composed of four parts: *Matzewallitли*, or “deserving,” emphasizes the active practice of good health; *Pahlitли* describes Mexica medicine and herbology; *Apapaxтли tlawayotl maihpahтли* includes physical manipulation (such as chiropracty), massage, and bodywork; and *Pahwawztли* consists of the healing instruments or paraphernalia of a shaman—the bird feathers, flowers, minerals, tools, and sweat bath, or *temazcal*, also spelled *tematzkal* (Avila 32-33). The shamans of both the Maya and the Aztecs are concerned with healing, prophecy, and control over men, gods, fate, and natural events.

Chapter 6

Divining the Cause of Illness

In order to heal, shamans often needed to perform divination to uncover the cause of an illness. Ethnomedicine in general is rooted in an environmental and cultural context; it develops in a particular place and time and therefore reflects local cultural, religious, and philosophical beliefs of that specific environment. As a result, it is impossible to completely understand a particular ethnomedicine, including the local views of sickness, disease, and treatments, without first having greater knowledge of these other areas. Disease causation in any culture is believed to be either natural or supernatural and fall into one or more of four domains: those of the individual body (involving genetics lifestyle, personality, etc.), the natural world (such as the environment and toxins), the social and economic world (including poverty, lack of social support, and discrimination), and the supernatural or spiritual world (which includes concepts such as God or gods, sin, and soul loss). It is important to be aware of these local philosophies of disease causation because treatment for illness addresses the specific cause of illness; just as there are physical, social, and psycho-spiritual dimensions to illness, there are parallel physical, social, and psycho-spiritual dimensions to healing as well (Erickson 100-103).

The Maya maintained that sickness was caused by bad action, which angered the gods or other supernatural forces, who in turn punished the offender (Colby 84). An *ah-men* would then perform divination, through his knowledge and ability to alter consciousness, to discover the reason for illness, which gods or spirits were irritated, and how to resolve the dilemma. The healer would then prescribe rites of spiritual atonement and healing and then a physical cure of a medicinal remedy (Sharer and Traxler 750; Colby 96). Maya spiritual insight often involved

calendrical divination (Webster). Through a study of the modern Ixil Maya people of Guatemala—involving rituals filmed in the field, collected case histories, and a diviner's visit and demonstration at the University of California, Irvine campus—anthropologist Benjamin Colby was able to partially reconstruct the ancient Maya practice of calendrical divination.

The Ixil Maya medicine men or “daykeepers” are tasked with tracking the days, just as was done by ancient Maya priests or shamans (Webster). The Ixil place red seeds from the coral tree onto their calendar to count the days and to determine what day is best for a certain ceremony; this practice is also used to perform dream interpretation and to determine the destiny of a patient. The divinatory reading is culturally accepted as the mode to uncover details about a sick person's past that can be used to help heal the ill individual; such details are classified into three groups: ascriptive attributes, such as age or gender; events likely to have significant consequences, such as failed courtships or land sold; and acquired attributes, such as social prestige or alcoholism. In the report of his finds, Colby stated that

Divination is a cultural decision mechanism that mediates consciousness and cultural processes as they respond to such stressor situations as sickness and social conflict. The first step in divination is a cognitive process involving creative symbolic mechanisms that match up with a physical layout of seeds on which the calendar is verbally superimposed. The second and third steps, occurring simultaneously, are the expression of the divinatory reading and its reception by the client observer.

Colby also discovered that Ixil divination acts to generate a sense of well-being and harmony among the people. In the material sense, Ixil calendrical divination creates a sense of control because it helps identify some cause for illness and prescribes healing and curing rituals to benefit the patient or patients. The ritual also increased social harmony, as it prescribed social behavior and social support. Symbolically, Maya calendrical divination acted to preserve tradition, as it required specific interpretations and stock phrases (Colby 81, 83, 86, 90).

These benefits of ritual divination also occurred under the Aztecs. These ancient peoples believed that the individual soul was made up of different parts, which must remain balanced to retain health and sanity. The three main parts of the soul were *ihiyotl*, associated with the liver or stomach, *teyolia*, associated with the heart, and *tonalli*, or “warmth,” connected to the head. *Tonalli* was regarded as the will, intelligence, and personality of an individual and was received at conception from celestial beings or from *Ometeotl*, the Lord of Duality, the Creator god who possessed both male and female qualities and who resided in the highest heaven, much like the Northern Great God. The *tonalli* was believed always to be shifting; as the most transferrable energy, it was gained and lost throughout life. If a person became sick, it was usually because he lost *tonalli*; to determine if a sick being was lacking *tonalli*, a seer, or *ticitl*, held a jar of water under the patients chin—if the reflection was shadowed, he was missing *tonalli*, and a shaman would be further consulted to retrieve the lost soul (Aguilar-Moreno 138, 171, 359; Berdan 147).



Figure 2. Various souls leaving the body of a deceased person.
Source: Aguilar-Moreno 171, drawing by Fonda Portales.

There were believed to be three main causes of illness: supernatural, magical, and natural. Supernaturally, the individual may have angered the gods, spirits, or impersonal forces of the

world, or else there may be an imbalance between the supernatural and natural worlds. Epidemics and incurable or contagious diseases were grouped in the supernatural domain, as were illnesses “caused” by cold weather—such as gout and arthritis—unleashed by the Mountain Gods or *Tlaloque* and venereal diseases, sent by *Xochipilli*, god of art, games, dance, beauty, music, flowers, and song, who punished the wanton (Montellano 131). Magical illness was sent by sorcerers and evil-wishers. Mesoamerican shamanistic societies believed in the law of contact, which helped make a foundation for magical illness, and stated that an individual could use objects once in contact with another person to have control over that person from a distance, an idea used by sorcerers (Montellano 140). Evil sorcerers, called *tlacatecolotl*, or “owl man,” were both despised and feared and were hired to do malicious work for others’ revenge. And finally, natural causes of illness were believed to lead to such maladies as headaches, stomachaches, and head wounds (Berdan 14; Aguilar-Moreno 359-361).

In Aztec creation mythology, the creators Texcatlipoca and Huitzilopochtli gave to the first humans the knowledge and tools for magical illness divination, and there were many different forms of it. *Mecatlapouhque*, or “fortune-tellers by the strings,” was were shaman cord-counters who used divining strings; they would knot a cord and then yank it—if the knot untied, the patient would recover, but if the not remained tied, it was the patient’s destiny to die. A *Tlaolchayauhqui*, or “one who scatters maize kernels,” would cast corn kernels onto a cloth, and the distribution of kernels divined the cause; if they also fell in an orderly way, the patient would recover, but if not, he would die soon. Aztecs believed that humans are made out of god-stuff, and corn was believed to be a god, while the earlier Maya also believed that the first humans were made out of corn meal; therefore, corn had religious and ritual significance to these cultures and helped to connect the gods and world of the spirits to the mortal realm (Aguilar-Moreno 360; Montellano 144-145; Berdan 147). In many ways, divination involves manipulating the odds. For it to be effective, the shaman must believe that his techniques work and perform to his

society's expectations, and the patient must believe in the shaman's power. This creates an important and necessary relationship between the healer and patient (Montellano 148).

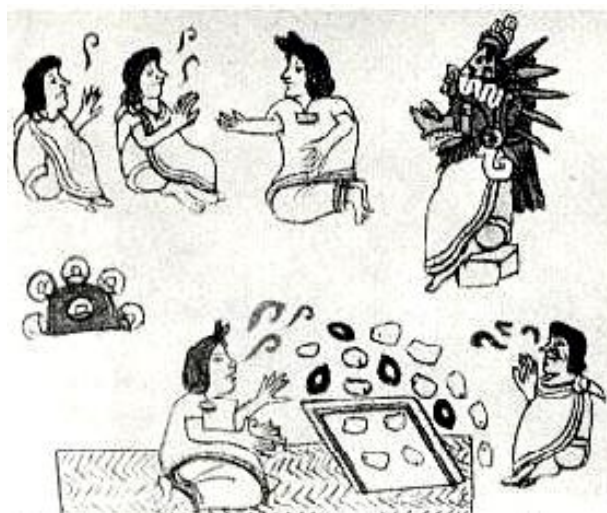


Figure 3. Aztec illness divination through casting corn, from the *Codex Magliabechiano*. Source: Montellano 146.

Recent research has helped to prove that cultural rituals such as divination greatly benefit patients psychologically. Expressing or narrating stressful, negative, or traumatic experiences leads to fewer illnesses or negative symptoms than in an individual who suppresses these experiences. Stress hormones like cortisol and the catecholamines are produced depending upon the perception of and response to a situation, and the socio-cultural effects of divination can help make one's perception and response to stress or illness much more endurable. Benjamin Colby stated that "Even if illusory, ritualistic practice can have real effects upon neurotransmitters, immunological functioning, and other information substances of the body, all of which figure into the healing process" (Colby 94-95, 101-102). Elements of such individual, social, and cultural ritualistic healing practices that endure today include prayer, offerings, incense burning, dancing, feasting, ritual drinking, the consumption of entheogens, and divination.

Chapter 7

Mesoamerican Ethnomedicine and Ethnobotany

Often accompanying such spiritual healing in Mesoamerican and other shamanistic societies was physical healing with natural medicine. There are few pre-Conquest codices containing traditional Mesoamerican knowledge remaining because of the book burnings conducted by fanatical Spanish priests of the 16th century. Consequently, most knowledge of pre-Conquest medicine is found in post-Conquest reconstructions of this knowledge, many of which are edited or censored to remain in accordance with the ideals of the Spanish rulers and the Catholic Church (Schendel 73).

The ancient Maya had skilled healers who set bones, aided in childbirth, sutured wounds, and performed dental surgery. As for medicine, their extensive and enduring observations of the effects of certain plants on the human body allowed them to obtain the knowledge and skill of medicinal plants, which healers used to create remedies to treat sickness or unwanted symptoms (Roys 20). There were many different methods of medicinal healing, depending on the illness. According to Kunow, a modern *ah-men* asks his medicinal plants to heal his patients before applying the medicine (Kunow 50). Sometimes the similarity between the color of the plant and the symptom was used to decide which plants should be used; yellow plants and fruits were used in curing jaundice, red for problems characterized by blood, and bird feathers were burned to cure yellow fever (Roys 21). While these may not necessarily have been directly effective, the placebo effect that often takes hold of a patient in ritual healing can set in to psychologically, if not physically, aid the ill individual.

The Maya applied their herbal remedies in a number of ways—they were eaten, drunk, smoked, snorted, rubbed on the skin, and used as enemas; cleansing techniques included fasting, sweating, and purging substances from the body in other ways, such as in a sweat bath (Houston, Stuart, and Taube 277). They created specialized, medicinal mixtures depending on the ailment. Common medicinal plants included chilies, cacao, tobacco, agave, and the pitarilla tree. In his book, *The Ethno-botany of the Maya*, Ralph Roys compiled a medical reference guide of the modern Maya, with cures organized by illness, such as aches and pains, asthma, birth and obstetrics, bleeding, chills and fever, headache, insanity, poisoning, and cancer and tumors (Roys vii-xvii). With surface wounds and headaches, the Maya applied plant plasters to the skin. For toothaches, they use an herb with red and orange flowers, called Tropical Milkweed, or *Asclepiascurassavica L.*, which the Maya name *x anal*, which creates a sap from its leaves that is applied to a tooth cavity. They had a remedy for measles, made from a drink from the boiled seeds of *Bixaorellana L.*, or Achiote, called *kiwi* or *kuxub* by the Maya. *Bursera simaruba*, or *chacah* (also called gumbo-limbo), was used in a number of ways for skin ailments—for skin allergies, its mashed leaves are soaked in water, which is used to bathe reacting areas; for snakebites or fever, a drink is made from its bark soaked in water (Kunow 110-111; Montellano 149). The Maya created sweat baths to be used for physical and spiritual cleansing, in which sickness was sweated, sponged, and massaged out of the body (Howells 92-93).

The more recent Aztec shamanism and unlicensed healing were banned by the Spanish conquerors, although this traditional and spiritual healing continued underground and was used to treat individuals during the Mexica smallpox and Spanish syphilis epidemics.

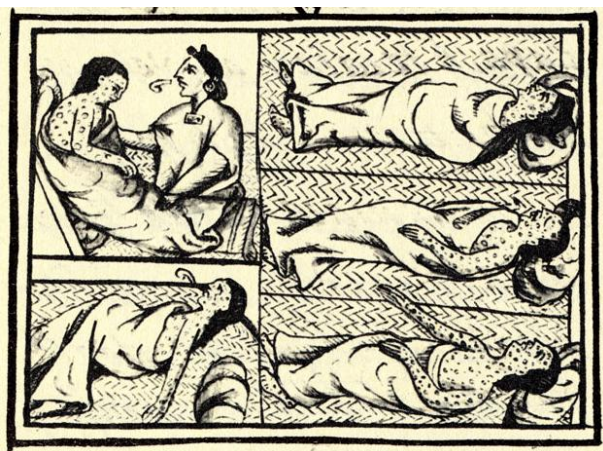


Figure 4. Nahuas succumbing to smallpox, post-Contact, in Book 12 of the *Florentine Codex*. Source: Fields n.p.



Figure 5. Page from the *Telleriano-Remensis Codex* displaying the epidemic of 1545-8. Source: Fields n.p.

These pandemics were believed by many Mexica to be a sign that the gods had turned their backs on the Aztecs and weakened their resistance to the influence of Cortes and the Spaniards (Fields n.p.; Montellano 131). The Aztecs had a steam bath, called the *temazcal*, which was believed to cleanse the body of *tlazolli*—physical, moral, and spiritual uncleanness. This daily bathing, which repulsed the Spaniards, was common among the Nahuatl speakers and was used for cleanliness, therapy, and healing (Fields n.p.). In addition to medicinal cures, the steam bath was used for issues of childbirth, festering skin, and trauma, and its relaxing, soothing, and purifying qualities were helpful in recovery in general (Berdan 157). Of the *temazcal*, Sahagun wrote in his *Florentine Codex*:

And the sick there restore their bodies, their nerves. Those who are as if faint with sickness are there calmed, strengthened. They are to drink one or another of the medicines, as has been mentioned. And one who perhaps has tripped and fallen, or who has fallen from a roof terrace; or someone has mistreated him—his nerves are shattered, he constantly goes paralyzed—they there make him hot....And one who has scabs, [one] whose body is much festered, [one] whose body is not [too] much covered with sores, they there have [such as these] wash (Fields n.p.).

The spiritually-lifting *temazcal*, much like our modern-day spas, was often combined with bodily manipulation and herbal medicines to create a holistic remedy for many types of illness.



Figure 6. The *Temazcal*, or Mesoamerican steam-bath as depicted in the *Magliabechiano Codex*. Source: Fields n.p.

Aztec physician-shamans knew and prescribed hundreds of these herbal medicines made of plants, fungi, and sometimes animal parts to heal wounds and cure disease; many of these remedies have been proven effective by recent studies and are still used in Mexico today. The advanced Aztec medical knowledge so impressed the 16th century Spanish that Spain sent doctors and scholars, such as Bernardino de Sahagun and Francisco Hernandez, to study and record these indigenous practices and wealth of medicinal knowledge. Much of what we know today comes from these Conquest-era Spanish and Nahuatl codices.

For example, *Daturastramonium*, or the narcotic jimson weed, was used in smoke form to treat asthmatic spasms, bronchial infections, and laryngitis and was also used in a salve to heal and soothe cracks in the soles of the feet (Schendel 66, 68). *The Badiano Codex*, also known as *The De la Cruz-Badiano Aztec Herbal of 1552*, was recorded in Nahuatl by the native student and healer, Martin De la Cruz, and was later translated into Latin by the Aztec student Juan Badiano; the codex recorded many effective Aztec healing secrets, such as painless and effortless tooth

extraction, in which rattlesnake venom dissolved in vinegar was carefully painted on the tooth, which, after a few minutes, could be easily extracted with the fingers (Schudel 51-52).

In his *Florentine Codex*, Sahagun described the good physician as one who amassed a knowledge of herbs, stones, trees, and roots; he also included descriptions of 149 medicinal herbs, their effects, and their use in prescriptions to cure headaches, fever, digestive problems, and epilepsy, among other illnesses. According to Sahagun, drops of house leek, or *tetzmitl*, were used to cure the burning of inflamed eyes. For a headache, one should inhale green tobacco; if this did not work, one should then inhale powdered *cocoyatic*, a medicinal flower, and if need be then be cut and bled. If one suffers from a toothache, he should extract the tooth or prick his infected gums with an obsidian blade or maguey spine and place onto it a poultice of *tlalaccauctl* and prevent further toothaches by rubbing his teeth with abrasive powdered charcoal and cleaning them with disinfecting salt and urine (Aguilar-Moreno 360; De la Cruz, Badiano, and Gates 19). These ancient and traditional herbal healing techniques were passed down for centuries, and the knowledge of the ancient shamans and healers endures today in 16th century Spanish and Nahuatl codices and in the continuing traditions of Mesoamerican people.



Figure 7. A Latin page from the De la Cruz-Badiano Codex, depicting four herbs used as a “remedy for lesions of the body.” Source: De la Cruz, Badiano, and Gates 80.

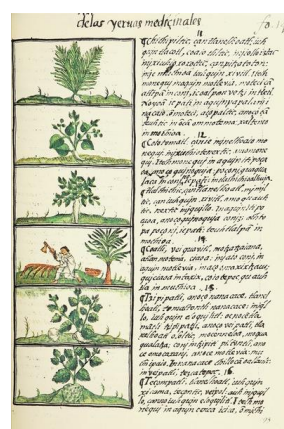


Figure 8. Aztec medical ethnobotanic plants in Sahagun’s *Florentine Codex*. Source: Keller and Sahagun n.p.

Chapter 8

Common Entheogens of the Maya and Aztecs

Mesoamerica contains the greatest diversity and use of entheogens in indigenous societies (Schultes and Hofmann 27). These entheogens are often made from plants and are consumed to alter consciousness and communicate with the “spirits” or other hierophanies for ritual or religious purposes, often with the objective of performing divination, prophecy, healing, or dream and vision interpretation. The spiritual and shamanic use of entheogens goes back to the time of the Paleoindians, for spiritual enlightenment and emotional release; some substances were even venerated as deities (Evans 65, 401). The oldest discovered remains of entheogenic plants dates back to around 8000 BC in the Northern Arid Zone of the Americas; caches of seeds were discovered of the flowering shrub *Sophora secundiflora*, commonly called Mescal Bean or Texas Mountain Laurel, which is extremely toxic, but when used in the proper amounts causes ecstatic trances (Evans 65). Extracts that alter one’s state of consciousness were called *itechquinhua*, meaning “it takes possession of him,” or *itechquiza*, “it comes out in him.” These names conveyed the idea that deities were contained in entheogen plants, which then take possession of the consumer and cause entheogenic effects in which the user experiences another dimension or aspect of “reality.” It was believed that an individual could better understand the full meaning of reality once he saw from all aspects (Montellano 69-70).

Among the Maya, mind-altering substances were most often used by shamans during ceremonies or rituals to obtain a higher state of consciousness or communicate with the spirit world. However, Maya citizens also used entheogens, such as tobacco and the alcoholic drink *pulque*, for mental and spiritual health, pain relief, and to restore balance and harmony to the body. The Maya consumed as entheogens water lilies, *balche*, which was a honey beer, and many other substances that the later Aztecs used (Evans 401).

Entheogens used by the ancient Aztecs were either discovered by the Aztecs or inherited from earlier Mesoamerican civilizations. Plant and fungi entheogens were used as anesthetics during surgery and to deaden pain (Schendel 54-55). They were also used as psychedelics as they were administered to sacrificial victims to quell unseemly protests and to force them to walk calmly to their deaths—the victims were given *pulque* in the day or two before their hour of sacrifice, and right before their deaths had powdered *yoyotli* hurled into their faces to induce a trance-like state (Sahagunn.p.; Evans 401; Schendel 71). Aztec shamans were often called *paini*, or “one who drinks medicine,” because of their consumption of entheogens in order to go into ecstatic trance and consult the “spirits” on other planes of consciousness (Montellano 144).

In the 16th century, the priest Sahagun recorded the descriptions and effects of various Aztec entheogens and even used them himself to aid in accurate documentation. He recorded the uses and effects of *peyotl*, or peyote, jimson weed, also called *tlapatl*, and psilocybin mushrooms, called *teonanacatl* by the Aztecs (Aguilar-Moreno 360-361). Even chocolate was seen as a slight inebriant, as its caffeine psychologically activated the mind (Evans 401). Copal resin was used as ceremonial incense; its beautiful smell was believed to attract the *tonalli* of the upperworld and strengthen one’s own *tonalli*, and it was used as a cure for melancholy (Evans 516; Montellano 139-140). *Pulque*, or agave beer, was an abundant and common intoxicant that was valued for its medicinal qualities, its use as a medicinal base, and its ability to liven up parties, causing partygoers to be “laughing and making witty remarks, making others burst into laughter...[until they] sat exhausted with mirth” (Sahagun 119; Evans 529).

Morning glory was a common entheogen among the Aztecs, and its seeds contain the psychoactive d-lysergic acid amide LSA, which is similar to but not as strong as LSD. Sahagun described its ritual use among the Aztecs—its seeds were ground up, and water filtered through the grounds was then drunk, creating visions described in Book 11 of the *Florentine Codex* as

terrifying, maddening, leading one to become besotted and possessed; European priests of the time considered morning glory a “gift of the devil” (Sahagun p.; Schultes 5).

In 1941, Dr. Richard Evans Schultes identified the plant that the Aztecs called *coatl xoxouhqui* as *Rivea corymbosa*, or the white morning glory, used as an entheogen among the Aztecs. Its brown seeds are called *ololiuqui* in Nahuatl, which were described by 16th century Spanish chroniclers of Aztec culture. *Ololiuqui* was taken by shamans as an entheogen and was also used as a local anesthetic (Sahagun n.p.). King Phillip II of Spain’s court physician, Francisco Hernandez, travelled to the land of the Aztecs in 1570 to survey the region’s botany; he spent the next seven years identifying over 3,000 plants and wrote a 16-volume manuscript published posthumously as *Nova Plantarum Historia Mexicana*, in which he described the medicinal and religious use of *ololiuqui*, whose source he believed was the white morning glory (Matsushima et al. 50-51).

Archaeological evidence was uncovered at the sacred city of Teotihuacan that also points to ancient use of the morning glory as an entheogen. Murals in the Tepantitla compound at Teotihuacan illustrate the Great Goddess of Teotihuacan, female deity of the Underworld and of darkness, and a stylized morning glory plant rising up behind her. Some believe that to the Aztecs, morning glory was more than a means of communion with the supernatural but was itself supernatural, even a god (Evans 270). *Ololiuqui* is still used in Oaxacan villages in curative ceremonies, where a drink is made from its seeds, and the intoxicated mumblings of the patient, who consumes the beverage, are interpreted by listeners (Schultes 4-5).



Figure 9. The Great Goddess of Teotihuacan depicted in a mural at Tepantitla with entheogenic morning glory vines protruding from her head. Source: Aleto.

Other varieties of morning glory were also used by the Aztecs as a means to communicate with the supernatural. *Tliltlitzin* was identified by R. Gordon Wasson as *Ipomoea violacea*, a blue morning glory with black seeds. *Ipomoea tiliaceae*, called *yaxceiyli* in Nahuatl, is a type of morning glory used externally to relieve cramps in the modern Yucatán (Kunow 125).

The Aztecs had to acquire their *peyotl*, or peyote cactus, through long-distance trade in the form of “buttons”—these were the spineless crowns of the *Lophophora williamsii*, or peyote cactus (Schultes 3). According to the earliest reports by Europeans in Mesoamerica, peyote was used by the Chicimecos and Toltecs at least as far back as 300 BC; this plant was used as a narcotic, entheogen, stimulant, and antispasmodic, and Sahagun wrote that it could be eaten or drunk to achieve the desired effects (Schendel 72; Aguilar-Moreno 360-361). Peyote was discovered in archaeological excavations of sheltered areas in Mesoamerica, such as the caves in Coahuila, Mexico, which was the site of human occupation for thousands of years, and in which abundant remains of peyote and entheogenic Mescal Beans were uncovered together. Some of

these earliest remains date back to 5000 BC, and in Colima, Mexico, ceramic bowls were unearthed which are covered in depictions of peyote plants and ornaments and which date to between 100 BC and 200 AD. Peyote plays an important part in religious cult and ceremonies in modern Mexico; members of the Huichol people go on an annual pilgrimage to Wilicuta, the growing region of peyote, where they have a ceremonial collection of peyote buttons for the coming year. In the United States, members of the Native American Church consume peyote buttons in religious ceremonies, moistening the peyote in their mouths and swallowing it, some individuals consuming up to 25 buttons in one night (Evans 65).

The Aztecs also made use of *Datura*, or *taloache* in Nahuatl, which was used as a medicine and as an entheogen. *Datura stramonium*, or *tlapatl*, otherwise known as jimson weed, is an aqua-colored herb with white flowers which was eaten or snorted. It was used by the Aztecs to cure gout, was made into a healing ointment to be used as a local anesthetic or antispasmodic for asthma, and was made into an infusion to ease bronchial infections and laryngitis (Schendel 66, 68). The *Florentine Codex* describes the use of *Datura innoxia*, or *mixitl*, a leaf that causes paralytic fixation, in which an individual becomes mute and rigid; however, used in a medicine, *mixitl* helped to cure gout (Aguilar-Moreno 361-361).

There is a summer-blooming, flowering shrub that grows in Mesoamerica called *sinicuichi*, or *Heimia salicifolia*; it is named *abre-o-sol* in Spanish, meaning “sun opener.” Its nickname, “Elixir of the Sun,” refers to its entheogenic effects—when consumed, *sinicuichi* causes a yellowed or gilded halo to appear around objects, makes sounds seem distant, and causes drowsiness, intoxication, darkening of vision, feelings of calm and unity, and improved memory of past events. Dampening outer influences, the consumption of this entheogen causes extreme introspection. It is believed to be the same summer-blooming plant which the Aztecs called *tonatiuh yxiuh*, or “herb of the sun.” In the *De la Cruz-Badiano Aztec Herbal of 1552*, there exists a recipe using this “herb of the sun” to conquer fear or timidity: “let one who is fear-

burdened take as a drink a potion made of the herb *tonatiuh-yxiuh*, which throws out the brightness of gold...” (De la Cruz, Badiano, and Gates 97). Other still commonly-usedentheogens are *Salvia divinorum*, or *popul tzintzintli*, an herb which the modern-day Mazatec from Oaxaca consume to produce a shamanic trance for divination and healing, and *Nicotiana tabacum*, or *picietl*, known commonly as tobacco, which is still smoked or chewed to produce visions.

Perhaps the most well-known of the Mesoamericanentheogens that has been used in Mesoamerica since ancient times is the psilocybin mushroom, or *teonanacatl*. This fungus was used extensively in religious mushroom rituals, and among the Aztecs, *teonanacatl* was considered sacred and was venerated; in mythology, even the god Axayacatl demanded theseentheogenic mushrooms as offerings. In Nahuatl, *teonanacatl* means “god’s flesh,” referring to its use as anentheogen that filled its religious and ritual consumers with wonder and devotion and bestowed upon them an elevated state. As a relatively harmless fungus, it was used in rites to produce a state similar to drunkenness; a larger amount was taken to cause a shift in one’s state of mind, inducing an ecstatic communion with the world of spirits and causing visual hallucinations which were interpreted for divination, prophecy, and healing rituals (Sahagunn.p.; Matsushima et al. 50; Evans 529).

The oldest known record of the ritual use of psilocybin mushrooms was discovered in ancient rock wall paintings in Tassili, Algeria in the Sahara Desert. These paintings include images dating back to 3500 BC, ofentheogenic mushrooms and human figures interpreted as shamans dancing with mushrooms in their hands and wearing mushroom-shaped hats; the mushrooms are colored white, ochre, and blue—the colors found on *Psilocybe* and *Panaeolus* psychedelic mushrooms.

The mushrooms in the “shamans” hands and on their heads are connected with a broken line, creating a link between the two. This imagery suggests theentheogenic use of psilocybin

mushrooms in ancient religious ritual (Matsushima et al. 50). An even older rock painting at Tassili shows a dancing shaman wearing a bee mask and outlined in mushrooms emanating what appears to be electrified auras (Stamets 1). In Mesoamerica, ancient “mushroom stones” are spread throughout Guatemala; these carved stone mushrooms have humans and animals on the stems and date back to the Preclassic Mayan period—about 500-200 BC (Schultes and Hofmann n.p.).



Figure 10. Mushroom “shamans” at Tin-Tazarift Rock Art Site at Tassili, Algeria. Source: Oss and Oerie n.p.

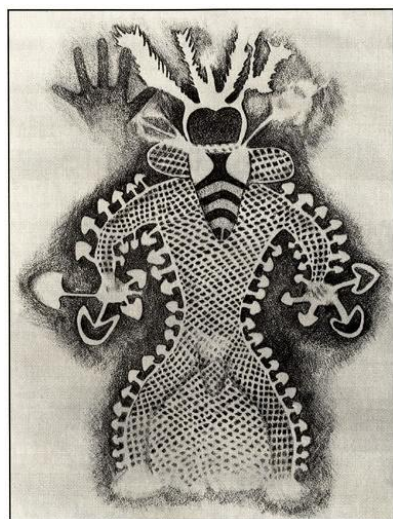


Figure 11. Bee-faced Mushroom Shaman of Tassili-n-Ajjer, Source: Oss and Oerie n.p. drawn by Kat McKenna.



Figure 12. Maya mushroom stones. Source: Schultes and Hofmann n.p.

After the Spanish arrived in the New World, they discovered the Mesoamericans' use of these mushrooms and had different reactions to them, based upon Catholic religious views, scientific discovery, or historic documentation. Many 16th century Spanish historians were fascinated by the Aztecs' use of psilocybin mushrooms and recorded their observations in historic codices. In his *Nova Plantarum Historia Mexicana*, Francisco Hernandez described three entheogenic mushrooms used by the Aztecs—the first caused uncontrollable laughter, the second, visual hallucinations, and the third, the rarest, was used in religious rites to cause wonderful or dire hallucinations (Matsushima et al. 50-51). *The Florentine Codex* expresses that *teonanacatl* had small caps and long stems and grew on the plains; it burned one's throat when eaten, but when drunk in a tincture of honey, it was consumed much more pleurably (Aguilar-Moreno 360-361). Historically, the people of the Aztec upper class ate *teonanacatl* while feasting, and eventually, according to Sahagun, "they ate no more food; they only drank chocolate throughout the night," danced and had "prophetic" visions (Evans 529).

In the mid-18th century, a statue was discovered in Tlalmanalco, a town at the base of the volcano Iztaccihuatl in the Valley of Mexico and an important pre-contact religious center. Dating to the 16th century—the time of contact between the Spaniards and the Aztecs—the statue is largely agreed to depict the deity *Xochipilli*, the "Flower Prince," Aztec god of flowers, dance, music, feasting, and art, seated on a base that calls to mind the glyphs of Aztec temples. *Xochipilli's* body and pedestal are covered in flowers, while carvings of the sacred entheogen *teonanacatl* decorates his knees and pedestal, and other entheogens—such as morning glory vines, tobacco, and various flowers—embellish several other body parts. Ethnomycologist R. Gordon Wasson, ethnobotanist Richard Evans Schultes, and Swiss scientist Albert Hofmann believed that the statue's appearance—tense, upright, cross-legged posture with open arms, a rigid jaw, and face raised to the heavens with its eyes and mouth open wide—mirrors a shaman in trance, amidst entheogenic ecstasy (Aguilar-Moreno 195).



Figure 13. *Xochipilli* statue housed in Mexico City. Source: Schultes n.p.

Teonanacatl is still used in a similar way in modern times during native ceremonies. The centuries-old tradition of the *velada*, or mushroom ceremony of the Mezatec in Oaxaca, is still performed among native peoples. For various problems, people of the community “consult the mushrooms” during a ritual ceremony to look for help and find a diagnosis and a cure. The *velada* often lasts throughout the night, led by a shaman—often a female—and observed by a sober monitor who listens to what is spoken during these ecstatic experiences (Schendel 72; Schultes 2).

In the 1950s, the ethnomycologist R. Gordon Wasson journeyed to Mezatec Oaxaca to confirm the ritual use of psychoactive mushrooms, where he participated in a *velada* rite in which he ingested them himself, resulting in a fantastic, ecstatic experience. Then, with French mycologist R. Heim, he identified Sahagun’s *teonanacatl* as 14 genera of entheogenic mushrooms, including *Psilocybe*, *Stropharia*, and *Conocybe*. He sent samples of these fungi to the chemist and botanist A. Hofmann in Switzerland, the scientist who had recently synthesized

LSD-25. Hofmann identified two psychoactive substances in *Psilocybe*—psilocybin and psilocin, the two most important mushroom hallucinogens, which are, in modern times, used as a therapeutic agent to help alleviate effects of OCD and may possibly be used for treating other nervous diseases as well (Matsushima et al. 51-52, 54, 55). R. Gordon Wasson went on to become one of the ethnobotanist-scholars who coined the term “entheogen” in 1979.

In the early 2000s, Johns Hopkins University conducted a scientific and psychological investigation and double-blind study to determine if and how psilocybin mushrooms contribute to spiritual and religious experiences. Using participants who had never taken hallucinogens before, the study resulted in a 2006 paper entitled “Psilocybin Can Occasion Mystical-Type Experiences Having Substantial and Sustained Personal Meaning and Spiritual Significance,” which described that the mushroom use caused various perceptual changes, such as increased levels of mystical experience. After two months, the volunteers reported that their ecstatic experiences had substantial personal meaning and spiritual significance, and on average these experiences produced lasting positive changes in attitudes and behavior, as announced by self-reports and observations by the volunteers’ communities (Griffiths et al. 268).

Chapter 9

Curanderismo and the Endurance of Wewepahтли into Modern Times

For centuries, the in-depth knowledge of Mesoamerica's ancient plants and fungi, stored in the minds of shamans of these indigenous cultures, has produced beneficial medicinal and spiritual results. The holistic "Greatest Medicine" of Mesoamerica has helped to heal and maintain the body in its *entirety*, taking into mind physical, mental, emotional, and spiritual health. This cherished and ancient knowledge, though threatened and depleted by time and by the Spanish conquistadors, has managed to last throughout the centuries—because of the few historical codices born out of the cooperation between Spanish and Mesoamerican peoples and because this valued information was passed down through the generations to preserve such an important part of Mesoamerican culture. Beginning in the last century, many of the treasured ancient Maya and Aztec remedies and entheogens have been identified and classified as part of the botanic world-bank, acting to preserve and spread this wealth of medicinal knowledge to the people of the world.

Recently, there has been an upsurge in tradition-preservation and revitalization among Mesoamerican people of Aztec and Maya descent, as peoples around the world realize the deep value of these shamanistic cultures. Through their knowledge and work, shamans "allay anxieties and intervene in crises of health, social harmony, and prosperous relations with the natural world," promoting harmony among the individual, social, and environmental levels (Evans 65). The practice of *curanderismo*, or traditional healing, in Latin America is growing now that there is less bias and racism toward the local traditions. Ehecateotl Kuauhtlinxan, a *medico* and teacher of *Wewepahтли*, stated in the 1997 Congress of Traditional Medicine:

The Aztecs did not share their ‘Greatest Medicine’ with the Spaniards because it became very evident that the Spaniards would misunderstand our spiritual beliefs. Our medicine was our great treasure, and we have guarded it carefully because we knew it would be destroyed otherwise... This tradition was guarded jealously for 468 years, which was the period of transformation. But now, we initiate the new period of development and growth in which we can share this knowledge...

Many of those who preserve and share this precious knowledge are *curanderos*. A *curandero* or *curandera* means “healer” in Spanish and is an individual who performs one or more of many roles, including those of doctor, counselor, psychiatrist, chiropractor, massage therapist, spiritual medium, and midwife. A *curandera* can deal with a wealth of illnesses, from eating disorders, diabetes, and cancer, to shyness, self-consciousness, a broken heart, hopelessness, loneliness, lack or excess of ambition or motivation, and how to leave or find a partner. Patients see these healers for a multitude of reasons. For example, some have experienced uncomfortable side effects of medication and want to seek alternative approaches; others don’t understand their illness because their doctor is not able to take the time to truly educate them, while a *curandera* can explain the physiology of their illnesses and present them with more informative and educational resources. Many patients see both a doctor and a healer, creating a very holistic approach to healing—nurse and *curandera* Elena Avila explained that “by coming to a *curandera*, they are acknowledging that medical science can take them only so far, and that some diseases will only heal when the wounds of the heart and soul have been healed as well...[meeting] physical, emotional, and spiritual needs” (Avila 41-43).

Curanderos are in a way modern shamans, who retain and use traditional healing knowledge, do “not separate the soul and spirit from the body,” and see “no separation between the nature of humans and their environment.” This practice is performed by hundreds of thousands of people who preserve Aztec tradition—in the forms of culture, ceremonies, and shamanistic instruction—and keep it alive by passing it down to future generations. The way of

the *curandero* goes back to the Aztec *Wewepahtli* and the post-Conquest blended healing of the Aztecs and Spanish—of spiritual and rational healing. Within *curanderismo*, illness is broken into four categories: mental, physical (with sicknesses such as *bilis*, or rage, and *empacho*, a blockage of the stomach or digestive tract), emotional (including *envidia*, envy, caused by a sickness in the *tonal*, or soul, a reference back to the days of the Aztecs), and spiritual (for instance, *susto*—soul loss—caused by trauma or violation and resulting in the feeling of not being fully present or not feeling like oneself anymore). As a result, *curanderismo* is a holistic health system and sees the human body as such, combining its many aspects with the family system and one's culture and environment as well, providing a sense of stability and continuity (Trotter and Chavira 174, Avila 43-64). *Curanderismo* is therefore adaptable to the individual in need and his worldview and cultural and personal beliefs. It is “not just a medical practice but a whole culture of health...[that] seeks equilibrium between the self and nature by engaging the cosmos, by learning to honor natural laws, customs, traditions, energetic systems and social systems, as well as our personal biological system” (Avila 16-17, 19, 20, 25, 30, 32, 39, 301). This holistic—and in Western societies, ground-breaking—understanding and healing of patients allows people to *maintain* health in many ways, and does not merely attack illness when it springs up.

Chapter 10

A Global Wewepahtli: One Vast Human Heritage of Medical Knowledge

In Western society, there exists a conviction that science and technology can cure us, and that they are the best, most logical way of healing. Western medicine, or biomedicine, is unique within the realm of ethnomedicine in that the interdependence of mind and body and the social causes of illness do not play central roles within it. For example, an infection caused by bacteria is treated with strong antibiotics (although prolonged intake of antibiotics has been revealed to have damaging effects upon the body); but many people suffer constant infections because of a weakened immune system, which should be strengthened through proper diet, exercise, and mental, emotional, and spiritual health. If solely the symptoms of an illness are treated but the body is not treated holistically, the body will most likely not heal as efficiently, and the illness will continue to have effects upon it.

This mind-body split of biomedicine leads to: a focus on curing disease and illness rather than maintenance of health; a focus on the body rather than the person; the decontextualization of health and disease; the erasure of the social, political, and economic causes of disease; and a failure to recognize the ability of the body and mind to heal itself. However, ethnomedical systems are not static—they change over time. Healers are continuously looking for new and better ways to heal. And all ethnomedical systems benefit from interacting with other systems of medicine and incorporating new ways of healing and new medicines from foreign lands and cultures, such as the great changes that occurred along the Silk Road and during the Renaissance (Erickson 100-102).

Now however, Western civilization finally seems to be broadening and clearing its gaze. We must now recognize both the strengths and weaknesses in modern “Western” medicine and in

traditional ways of healing and use this realization to the benefit of people around the world. With a mindset centered on mutual respect and interest, we must combine beneficial health practices, making ancient, cultural medicinal systems complementary to the Western way of medicine. This union has already begun. In 1998, the National Institute of Health's National Center for Complementary and Alternative Medicine was created, which states as its mission the "scientific investigation [of] the usefulness and safety of complementary and alternative medicine interventions and their role in improving health and health care." Two of the basic cures the center has backed up with scientific research are the use of Echinacea for strengthening the immune system and St. John's wort as a natural antidepressant with many less negative side effects than in antidepressant pills (Avila 316). Additionally, the International Congress on Traditional and Folk Medicine is a gathering of healers of different cultural backgrounds—including anthropologists, ethnologists, ecologists, doctors, and *curanderos* and other traditional healers—who organize an "interdisciplinary approach to the study of traditional medicine [which is] unique in its breadth and helps foster a much better understanding of what the various disciplines can bring to the study of traditional approaches to health care" (Avila 313).

Medical practice in the United States and worldwide will be ideal if scientists, "Western" doctors, and traditional healers work together so that all of the Greatest Medicine of the world's many valuable cultures is combined and united into one vast human heritage of knowledge and holistic healing aimed at the maintenance of health, not the reactive treatment of illness. As Avila stated, "Only a medicine that deals with the whole being can effectively create a whole cure" (Avila 39). This union of knowledge and cultures acts to create the ideal medicine. Kaiya Montaocean, cofounder of the Center for Natural and Traditional Medicines and a creator of the Healing Roots Network, wrote, "The healing arts are a global phenomenon and every group, every culture, has a color, an image, a brushstroke to add to the ever-growing mural of therapies and cures" (Avila 319-321).

Western society is coming to understand that these brushstrokes of traditional holistic ways of healing contains valuable information about how to truly heal and how to understand the connections between the different levels of the human body and its interconnectedness with its environment to be better able to heal. Joan Halifax similarly declared:

I believe that the interest in shamanism today represents not only a nostalgia for the past but also a need for us to understand the unrevealed nature of the human psyche as well as the lessons that the world of the wilderness has to teach us about who we really are internally and in terms of our extended self, our True Self. As nature in all parts of the world is being critically altered or destroyed and the peoples who live with the wild commons find their lives changing rapidly or ending altogether, our interest in shamanism represents an attempt to retrieve and include a part of our inner and outer lives that technology and civilization has consistently denied, eliminated, or destroyed since the advent of agriculture. In the contemporary world, where our rites of passage for young men mean going to war, in a world where social disorder and environmental disaster produce an angst that conduces to madness, the way of the shaman, the one who is a master of the threshold and ally of suffering, might well be of great value for all species of beings...The respect and sense of relatedness that many primal cultures feel toward nature is one of the ways in which they express the knowledge that has awakened in visionary states. To understand the shaman's world at this time is to understand the Self (Halifax 8).

By opening ourselves to the wealth of holistic knowledge that past and present cultures have to offer, we can better realize the “greatest medicine” within ourselves and have a deeper communion with the world and a much-needed and greater understanding of the Self—and, therefore, the knowledge needed in order to heal it.

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Research Interests

I have broad interests in the overlap of anthropology with health, fitness, and overall maintenance of wellbeing, particularly in the integrative medicine of various cultures. Specifically, I am interested in the benefits that a collection of ethnomedicines from various cultures (such as yoga, meditation, food and exercise as medicine, and even newer practices, such as Zumba) have upon peoples' overall wellbeing and maintenance of health and happiness.