

THE Herbal Lore OF Wise Women AND Wortcunners

The Healing Power
of Medicinal Plants

Foreword by Rosemary Gladstar

WOLF D. STORL

Author of *Healing Lyme Disease Naturally*

Also by WOLF D. STORL
Healing Lyme Disease Naturally: History, Analysis, and Treatments

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My spirit and the strength of my arms
Embrace the doctor
Who can name each plant
And knows profoundly each root
Which heals the sick and lends solace to the suffering.¹

—Goethe, *Faust*, Part II

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Key to Planetary and Zodiacal Symbols

Planets

☿ Mercury

♂ Mars

♀ Venus

♃ Jupiter

♆ Neptune

♅ Uranus

♇ Pluto

Zodiac Signs

♈ Aries

♉ Taurus

♊ Gemini

♋ Cancer

♌ Leo

♍ Virgo

♎ Libra

♏ Scorpio

♐ Sagittarius

♑ Capricorn

♒ Aquarius

♓ Pisces



Foreword

The *rishis*, the great seers at the dawn of time, saw not only the appearance of things (phenomena), but the essence of things, the hidden, divine qualities, as well. To them, plants were beings with which one could speak and converse in the inner recesses of the soul.

—*The Herbal Lore of Wise Women and Wortcunners*

From the moment I opened *The Herbal Lore of Wise Women and Wortcunners* and delved into the first paragraph, I was intrigued and captivated. Not only is the name unique and original (what is a “wortcunner,” after all?), but the entire tome offers a deep excursion into the heart of herbalism not generally found in the run-of-the-mill “this herb for that” kind of herbal. Not content with a mere description of endless herbs and their healing virtues, *The Herbal Lore of Wise Women and Wortcunners* invites us into the hearts and essences of the plants and encourages us to discover “who” they are through the realm of our own senses.

The author, as you will quickly discover, is brilliant—a cultural ecologist by profession and respected herbal elder. Wolf D. Storl’s experiences span decades of studying with forest gnomes, medicine shamans, and herbal gurus around the globe; and obvious from his writings, he has also delved deeply into the works and writings of the old masters. I’m one who loves history and historic content, and this book is rich with verse from the oldest herb manuscripts, rare books, early writings, and obscure documents, all well annotated to boot.

We travel back in time and learn of the great herbal masters. Though several of these wise herbalists’ and healers’ stories are somewhat known, especially those of Galen, Paracelsus, and

Dioscorides, Storl uncovers stories and teachings not often heard and masterfully weaves them into the context of modern-day herbalism. *Marvelous!*

Not so far back in time and thus perhaps even more important are the teachings shared of the likes of Rudolf Steiner, the founder of biodynamic agriculture and anthroposophic medicine; the famous French country herbalist Maurice Mességué; and Arthur Hermes, Storl's friend and teacher, who lived on a "knoll overgrown with ivy, holly, oak, ash, and elderberry." But Storl knows that often "the greatest wortcunners ... are not the famous ones ... but the quiet, wise country women, the grandmothers and the great-grandmothers, whose lifelong experience taught them the right herb for any ill and the places where these plants grow," and he devotes a great deal of his herb book espousing the rich tradition and teachings of these wise women. *Marvelous again!*

Equally interesting and important are Storl's own stories. As a young boy, he was of that special clan of children who knew early that they are chosen by the plants. His stories of his early childhood growing up in the postwar years of World War II in a small town in Saxony, where he first encountered the healing properties and nourishing medicine of the plants, are what first invite you into this magical realm. For example, as a child of nine he was able to "disappear" a nasty boil by rubbing a green apple over it. Nonbelievers may wonder at these stories, but anyone who has ever worked with plants deeply knows of this intrinsic connection that humans have with plants if we but open our eyes and hearts to see. Some children, however, just know.

Much as Paracelsus in his *Herbarius*, one of the world's earliest herbals, criticizes the false or incorrect teachings found in the artful and beautifully bound "new" herbals of his day, so Storl laments the misinformation and lack of depth presented in some of today's mass-produced and quickly written herbals; information repeated often enough until it seems to be the truth is not always truth.

Throughout *The Herbal Lore of Wise Women and Wortcunners* we are taught the hows and whys of being an herbalist, and how to expand our deepest connections with these incredible plants. There

are instructions on how to garden and how to make medicine, advice and warnings about toxicity and poisons, and some of the usual information one might expect to find in an herb book. But rather than being “just a botanist or knower of herbs” on a surface level only, in this book we are invited to see beyond the surface, to enter into the realm of and know deeply the essence of plants. Storl lauds the herbal renaissance, but he likens it to putting “new wine into old skins.” This is not the approach here. Instead we are asked to consider what herbs really are, what our relationship to plants is all about, and why plants heal. We are introduced to astrology, alchemy, and the doctrine of signatures in reference to our relation with plants. It’s a full feast, one that I’m so thankful to have been able to sit down and devour. I am filled. And though an herbalist myself for what seems all of my long life, I am humbled by how much I learned reading the wisdom of *The Herbal Lore of Wise Women and Wortcunners*.

Rosemary Gladstar, herbalist and author,
from her home in Sage Mountain, Vermont

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Introduction

After the drone of the flying fortresses, the eerie howling of sirens, and the rattling of gunfire had finally stopped for good, foreign troops and masses of refugees from the eastern provinces crowded the streets: electricity, gas, and water services had collapsed, and everyone was hungry. It would take several years before the larders, the cellars, and the shelves of the grocery stores would be filled again. People bartered with the occupiers/liberators, traded on the black market, and raided the villages nearby. They dug out roots; searched for berries, nuts, mushrooms, and shoots; and were thankful for any dandelions, nettles, lamb's-quarters, or burdock roots they could find. The lawns of proud villas were scythed to feed cows or a few caged rabbits or were dug into garden beds to grow cabbage and potatoes. Medicine was as rare and expensive as food. Grandmothers remembered old remedies that grew behind the house: sage leaves as a gargle for sore throats, chamomile tea for indigestion, dandelion root for bad livers. This was the only and everyday reality of a childhood during and after the Second World War in a town in Saxony. It was then that it was ingrained into me to be thankful for every little herb and weed—for they are givers of life and health.

Even these days, in affluent America, I prefer vegetables from the field and forest to those of the supermarket, and “worts” to the synthetics of the drugstore. Old Euell Gibbons is right. These wild foods are delicious; it is fun to pick, gather, and identify the plants. It allows one to reconnect with one's natural surroundings in a world that is becoming ever more plastic, electrified, and artificial. One's body and mind are stimulated as one accepts the gifts this

country has to offer. One picks up where the aboriginal inhabitants left off, communing with the earth.

Picking daylily shoots and parsnip roots from the side of the road, I cannot help worrying about the effects of the exhaust from the cars that pass continuously. Farther on, the railroads must have been sprayed with some infernal herbicide—a product of one of the industries generated by the Vietnam War, when the capacities to mass-produce plant killers were developed. At the railroad dam there is definite evidence of the use of spray: the skeletons of last year's plants are distorted and twisted, like organisms that convulsed in severe pain. The giant fields themselves, created for monster machines, are bare—not a weed between the corn stubble or dried soy halms. Here, too, herbicides have been used.

Halogenated hydrocarbons (2,4 D and 2,4,5 T) contain traces of dioxin, one of the most toxic, carcinogenic, mutagenic substances known. Even if dioxin were not experimentally associated with the dreaded modern plague called cancer that strikes one out of four Americans, there would still be cause to be disturbed by such a disruption of nature. How biodegradable are these substances? “Biodegradable”—a convenient concept: our mind can easily imagine the molecules breaking down into innocuous substances. But could this not be an example of our mind, as so often happens, playing tricks on us? What do we really understand of the manifold, subtle processes that go on in the soil or in plant and animal organisms? One thing I have noticed for sure: the flora and fauna are not as rich as they used to be when I came to Ohio some thirty years ago. In vain, I search for plants that were relatively common back then. Having been away for a long time makes one conscious of subtle changes that remain almost imperceptible when one lives in an area year after year.

I am a cultural ecologist by profession. In the intervening years I have lived with Swiss-German peasants, French viticulturists, Indian peasants in Benares, American Indians, Andalusian peasants, and spiritualists in Ohio, as well as in anthroposophic villages for mentally handicapped adults, which all have biodynamic gardens. In the course of my research, I have met many herbalists, gardeners,

and traditionalists, foremost the peasant herbalist Arthur Hermes, who lived on a homestead next to ancient megaliths in a forest clearing in the Jura Mountains above Lake Neuchatel in Switzerland. It is to him that this book is dedicated, for he gave me the key to understand some of the things written here. The fragments of stories and old wisdoms that I was able to glean, I would like to share with you here.

Only a few years ago, the idea that one could gather foods and spices in the fields and woods caused condescending smiles, the raising of eyebrows, or the wrinkling of the nose. It might be all right for Boy Scouts, Indians, or health nuts like Euell Gibbons, but not for serious, rational people. When it comes to medicating oneself or others with wild roots, leaves, and barks, the reaction is even stronger: “Why, that is downright dangerous. There are laws, you know!”

Much has changed in the past few years. With the environmental disasters caused by chemical spills at Seveso, Love Canal, and Minamata and such tragedies as the thalidomide crisis, the unconditional faith in “progress” has tarnished somewhat. The effects of energy-glutting agribusiness, with its attendant inflationary pricing of flavorless and unwholesome products, have aroused the interest of even “normal” people in homegrown produce and wild foods—not just hippies and health nuts. The hospital corporations and their doctors, too often more eager to line their pockets than to help and heal, are themselves responsible for the interest in herbal medicines. Herb books, including Nicholas Culpeper’s *Complete Herbal*, are best sellers. Herbal medicine companies are popping up like toadstools after an autumn rain, mass-producing botanicals, grinding them up, stuffing them into capsules, and selling them with a good price tag. A hippie undertaking of the sixties has turned into Celestial Seasonings, a company with equally celestial profits. Lipton (of the enormous conglomerate Unilever United States, Inc.) took the hint and is now also producing herbal teas. Appalachian herb gatherers are now sending thirty to forty million dollar’s worth of American ginseng to East Asia.

This renaissance of herbal interest is laudable, yet it often amounts to putting new wine into old skins. Herbs should not be dealt with in a purely commercial way. In this book I will try to explain why. We need a new way of thinking about it all: what herbs really are, what plants are, what our relationship to plants is, and why plants actually heal and help (is it just because they contain certain biologically synthesized molecules?). What is illness? Yes, even that must be asked anew because traditional herbalists have quite different explanations for these things! This leads us to the basic philosophical question: What is man, and what is his relation to the world? Is that taking us too far afield? Not at all. Ecological and social crises, crises in medicine and agriculture—philosophers talk about the need for a “paradigm” change!

There are many books on the market on herbalism. They will give you this or that recipe or formula for this or that ailment. Here, however, we will go deeper into the matter. We will go to the root of things, that is why this is a book about *wortcunning*, not just herbology.

LaGrange, Ohio
Spring 1985

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Preface to the New Edition

This book came about back in 1985, when I was teaching a course on medical anthropology at Sheridan College in Wyoming. I talked mainly about plants, wortcunning, and herbalism since that interested me and also the students the most. Sitting in the first row directly across from me was a rather strange, unfriendly couple, dressed in uncomfortable-looking but fashionable tight suits. When I passed around the herbs that I had gathered for the students to look at, feel, and smell, those two contorted their faces and passed them on at arm's length as though the plants were something repugnant. After the first session, one of the students came to me and said, "Do you know who those two are? He is a doctor, the head of the local chapter of the American Medical Association, and that is his secretary. They are here to check you out and see if you prescribe some herbs and make yourself guilty of illegally practicing medicine." I wasn't worried as it was not my intention to prescribe anything. After the two "spies" heard that Amazonian natives sing songs (*icaros*) to the plant spirits and that Mars is present in the stinging nettle, the moon in the poppy, and Saturn in the sage brush, they came quickly to the conclusion that I was no threat to the medical profession—that I was, at best, a harmless crackpot. After the second session, they did not come back.

The other students, however, were enthused and asked about literature so they could more profoundly research the subject matter. Unfortunately, I had to disappoint them. There was hardly any literature. Most of what I presented came from personal experience with biodynamic gardeners and native herbalists in various parts of the world, anthropological data that I had scribbled into my notebooks, and what I had gleaned from obscure

anthroposophic sources. So they asked me if I would at least make my lecture notes available for them. It is out of these lecture notes that this book resulted.

I submitted the book to various publishers. At the University of California Press, an editorial committee reviewed the manuscript. They came to the conclusion that they would not publish the book because “by publishing medieval arcana as the belief of an educated, modern man of letters, I believe the Press would be giving these beliefs respectability and credence for which there is no support except among illiterate shamans and the subjective opinions of the ethereal outer fringe of modern horticulture and medicine.” They also could not accept the possibility of the effect of cosmic influences upon plant growth and the use of anthroposophic literature as references. I understood their point of view all too well. Not only had I rattled academic egos, but I had also unwittingly put the socially sanctioned paradigm of “reality” into question. That is often the dilemma of anthropologists when they try to understand the phenomena with which they are confronted from the “inside view,” and when their research leads them beyond the accepted cultural construction of reality. The basic tenets of herbalism are older than the modern scientific paradigm. Herbalists use their own (archaic) vocabulary and symbolic system.

A lot of water has passed down the Mississippi since I first submitted my book. I forgot about *The Herbal Lore of Wise Women and Wortcunners* until my wife dug up the manuscript and read it. She said that the subject is actually timeless and felt the book only needed some revising and updating. That I have done in the past couple of months and was myself surprised how contemporary the subject still is.

Isny im Allgäu, Germany
Halloween 2010

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CHAPTER ONE

The Story of Herb Lore



Wortcunning



To the Anglo-Saxons of the days of yore, the wise women and the wizards who knew the virtues of plants were known as *wortcunners*. *Wort* means “root,” “herb,” or “spice,” and *cunning* (from the Middle English *cunnen*) means “to know.” The names Saint-John’s-wort, figwort, motherwort, moneywort, and wormwood (actually wormwort) plainly attest to the fact that herbs were generally called “worts” in common English.

The concept of wortcunning is not readily translated into botany, pharmacognosy, or herbalism. Scientific botany did not yet exist. A root was by no means just a tuber, rhizome, or subterranean appendage of the plant. A root was the place where gnomes dwelled, where hidden, unperceived things generated and took form until they burst into the visible world of appearance. Roots belong to the zone of the deep, dark, and mysterious—to the other side of Being, to Essence, to Origin, not to the side of phenomena. A root-knower (wortcunner) is a seer. He or she knows the root of the illness that strikes a human being down and knows the root of the cure: the wort, which unfolds as secretly in the dark as the very malaise it will heal.

The word *word* is etymologically related to wort. Consider the statement of the Indo-European worldview with which Saint John begins the fourth Gospel: “in the Beginning there was the Word.” Word, *wort*, denotes origin: indeed, the word origin, related to the German *ur-* (first, primordial), is relevant here. The origin is personified in the great God (Good) beyond the realm of space and time: Ahura Mazda (Ormazd) for the Persians; Uranus, beyond the sphere of Saturn (time), for the Greco-Romans; and Varuna, the Vedic guardian of the dharma (eternal law) and the rtam (rtam, a further Sanskrit relative of this word cluster, is related to the Latin

ritus [rite, ritual] and the Germanic “right,” because right is woven into the very origin of things).

The Orient (Latin *oriens*, *orientis* = rising) is where the sun originates and the light of the world arises. In the old Roman auguries, if the birds flew to the east, it was a good omen; to the west, it was a bad omen. We get our bearings by *orienting* ourselves.

In Nordic mythology, at the root of the cosmic tree, Yggdrasil, the three ur-goddesses sit and spin out the fate of the universe—that of men and beasts and the gods alike. Urd, Wyrð, and Skuld are their names. Urd is primordial coming-into-being; she is also the primal earth. Wyrð is fate unfolding. When extraordinary events break into our routine lives, we still say the name of the goddess: “That’s weird!” Skuld, related to the word *should* (and the German *Schuld*, “that which is owed”), refers to the dharmic law (rtam) of what is right and proper for beings, what ought to be done. At the root, below the trinity of goddesses, sleeps the *Lindwurm*, the World Serpent. Worm (Latin *vermis*) is part of the semantic complex surrounding *uert*, the Indo-European root of root, right, origin, word, and wort.¹ The worm twists and winds out of the hidden ur-ground like the word winds out of the dark depths of the soul, like the whorl (fly-wheel) spins out a new thread, and like whirlwinds come twisting out of the void.² Related words are the Gothic *wairthan*, Anglo-Saxon *weordan*, Swedish *varda*, German *werden* (to become), Sanskrit *vartati* (twist) and *varjati* (turn, wind), and the Latin *vertere*, *verti*, *versum*, and *versus* (also meaning to turn, twist, and wind). Even the German word *Wurst* (sausage) fits into the etymology, being made of twisted intestines. The underlying meaning of the Indo-European *uert* is one of the winding, twisting, and turning of Essence as it comes from “beyond” into manifestation. This archetypal movement is represented frequently in religious art, such as in the intricately interwoven curls and swirls of Celtic or Nordic woodcarvings, in the patterns of grapevines in medieval Christian manuscripts, or in the columns of the baldachin of the high altar in the Vatican sculpted by Giovanni Lorenzo Bernini.

What about the word *cunning*, derived from the Middle English *cunnen* (to know, declare, acknowledge)? Related words are *kin*—people with whom one has blood bonds, whom one knows—and *kid* and the German word *Kinder* (as in kindergarten), denoting offspring. It is to kinfolk that one is *kind*. To *kindle*, meaning “to generate,” is related. The Greek *genea* (descend, lineage), Latin *generatio* (to generate, to sire), and a whole thicket of words such as *genius*, *generator*, *genes*, or *generous*, go back to the Indo-European root *gen* (to produce, bear, bring about). Farther afield but deriving from the same stem are such words as *king* and *can* (to be able): a king is one who can; he is the generating sire.

Now, after this excursion into word origins, we can better appreciate the concept of wortcunning. A wortcunner is not just a botanist or a knower of herbs, but one who has the occult (Latin *occultus* = hidden, secret) power to see into the origin of things, to see beyond the surface. He or she has a relation of kinship and kindness to the worts, knows their names, and knows the words (chants and mantras) with which to call upon the spirits that inhabit the plant world.

The Roots of Herbalism

Modern researchers imagine, as one can read in one herb book after another, that early man, that dim-witted brute, driven by hunger and pain, learned which plants are edible and which have healing virtues by a process of excruciating trial and error. Many times he must have poisoned himself; slowly, however, a body of lore was built up. But trial and error is how we, with our scientific method, attempt to find out about our world. Such a method did not exist back then. As our most ancient written sources indicate, and as ethnologists gather from nonliterate tribal peoples, there was a different way by which the virtues and vices of plants became known. The Hindus speak of sacred knowledge as being originally directly “seen” (Sanskrit *shruti*); only later was it derived from tradition, by hearsay (*smriti*). The *rishis*, the great seers at the dawn

of time, saw not only the appearance of things (phenomena), but the essence of things, the hidden, divine qualities, as well. To them, plants were beings with which one could speak and converse in the inner recesses of the soul. They could understand because through austerities and saintly lives, they had pierced the veil of illusion that covers ordinary consciousness. Like the still waters of a forest pool, their minds rested—open and void—so that these divine plant beings could reflect in the mirror of consciousness. We could say, using the language of modern psychology, that they knew how to “dissociate” and go into trance, to suspend themselves from the frozen images of the functional worldview (the learned, structured images of what we socially define as reality), and to hear what the “spirits” and “gods” had to say. They knew how to tap the level of instinct, or of the deep unconscious, as our psychoanalysts might say. But this was not at all a subjective phenomenon of contemplating the inner world; it was the ability to go into the “inside,” where the concept of subjective or objective no longer makes sense!

It appears, as Mircea Eliade and others have shown, that this ability has decreased as civilization, with its attendant specialization of functions, took hold of human cultures. Shamans who have this ability still exist, but they are becoming ever more rare. More often than not, they cannot easily and simply find the doorway to the gods but have to rely on drugs to wipe away partially and temporarily the impinging structures of civilization.

Early human beings, living in the bosom of nature, were clairvoyant. Legends tell of the time when mankind talked with the gods and when animals could speak. It was then, also, that some of the plants received ancient names, which indicate their hidden nature.

All this need not be as strange as it seems. Occasionally, there are still children who “instinctively” pick a plant that will heal an ill. If one of the urchins in my street gang got cut or bruised, we would pick plantain, crush it, and rub it on the sore spot to stop the bleeding. Where that idea came from, I do not know. Perhaps it is part of children’s culture like hopscotch, bows and arrows,

slingshots, rocks in the pockets, or playing tops and goes back millennia. We also climbed old yew trees (*Taxus baccata*) growing by the road and gorged ourselves on the red, slimy berries. Adults who came by were terrified because, as anybody knows, the yew is one of the deadliest poisonous plants that exist. But we just laughed at the stupid adults. Somehow we “knew” we could eat these sweet berries, but we would not even think of biting down on or swallowing the seeds, which contain the deadly alkaloid taxine. As a nine-year-old, I caused a nasty boil on my neck to disappear by “instinctively” rubbing a green apple on it. Even much later, there were rare occasions when one knew about the hidden nature of plants. In the late winter, while living in a dry, wood-heated farmhouse in the Swiss mountains, I was suffering from bronchitis. One uncomfortable night, a pretty yellow flower appeared in a dream, and I awoke with the feeling that such a flower would help my discomfort. That day, on an exposed bank where the snow had melted, I found a patch of such flowers, radiating like so many little suns. They turned out to be coltsfoot (*Tussilago farfara*). The very name *tussilago* means “cough dispeller.” A tea made from the flowers was like bringing so much sunshine into my wintry lungs.

Throughout the ages, people found their herbs, medicines, and food plants by this sort of “intuition.” This is attested to by historical as well as ethnographic data. Aspasia of Milet, one of the most beautiful and intelligent of the Greek hetaeras (courtesans) and later “first lady” of Athens through her marriage with Pericles, sported an ugly growth on her face as a young girl. When the doctor who had been consulted refused to treat her because the father could not afford the fees, she went to bed weeping. In a dream, a dove appeared and turned into a woman who comforted her with the words, “Take courage and ignore the doctors and their medicine! Take the dried wreaths of roses that adorn the statue of Venus, powder the petals, and place them upon your face!” This she did and was fully healed.

Cicero tells the story of Alexander the Great sitting deeply troubled beside the bed of his friend Ptolemy, who had been wounded by a poisoned arrow and was awaiting a painful death.

The fatigued Alexander nodded off into a dream. A dragon holding a root in its jaws appeared and told him where to find such a root, which would restore his friend. Ptolemy, later king of Egypt and founder of the dynasty that would end with Cleopatra, and a number of other soldiers were saved by the plant that the dragon had pointed out.

The reformer and humanist Philip Melanchthon (1497–1560), suffering from infected, weeping eyes, dreamt of an angel named Dr. Philo who recommended eyebright (*Euphrasia officinalis*) as a cure. Melanchthon washed his eyes with the tea of the herb and was cured within two days.

Herbs and other remedies revealing themselves in dreams is perhaps more common than the priests of our modern worldview dare admit. Peasants of Switzerland frequently told me of such experiences. The clairvoyant healer Edgar Cayce, who dreamed of reliable remedies, is not a solitary figure.

In times of great turmoil and calamity such as the plagues of the Middle Ages, the beings of the “other side” would jump into open daylight and not even wait for the vehicle of a dream to make their appearance. Countless stories attest to peasants who meet “wild folk,” “little people,” or gray, wizened, wee men showing themselves in field and forest, telling the panic-stricken,

Eat valerian and pimpernel
And all of you will be well.

It is claimed that those who ate these and similar plants in full belief did not succumb to the plague.

Some communities had so-called sensitives who did not dream of the virtues of the plant but who could feel a sensation somewhere in the body when they were near a plant. This tingling would be taken as an indication that the plant could be used as medicine for that part of the body.

In the course of time, the knowledge gathered by generations of visionaries, dreamers, and mediums became the codified dogma of priesthoods and their schools of medicine and healing. The powerful

medical priesthoods of Babylon, Egypt, and Greece came into being. In China, herbal knowledge was codified in the *Pen Ts'ao* under the deified Shennong around 3000 BC, and in India the orally transmitted Ayurveda was put into writing as the *Atharva Veda* some time later. The transition is gradual and not complete, for it marks the passing of cultures with a way of life based on hunting and gathering or simple horticulture to one of increasing civilization with its implicit specialization of social functions, division of labor, literacy, and urban living.

Holy Men from the East

Bhikkus (Buddhist monks), *sadhus* (ascetics), and *sannyasins* (Hindu holy men) leave worldly affairs and family attachments even to this day and wander God's earth freely. In Indian villages, they are received with reverence and besought for advice concerning the ills that plague us, be they of body or soul. Most of them are versed in Ayurveda (Sanskrit *ayur* = life and *veda* = wisdom). Along with stories of the gods and demons and using sayings and metaphors, they teach about diet and the administration of herbs and help where help is needed. The Ayurveda is a basic Indian tradition that underlies both Hinduism and Buddhism.

About three hundred years after the death of the Enlightened One, the emperor Ashoka sent Buddhist monks to all corners of the world to bring the teaching of *ahimsa* (nonviolence), *satipatthana* (awareness), and peace of the soul to mankind. In the course of time Ceylon and Southeast and East Asia would hear the message. There is no reason to assume that these Buddhist monks only went east. Caravans winding their way westward on the Silk Road, crossing the cold Khyber Pass, the dusty highland of Iran, and the valley of the Euphrates all the way to Rome or Alexandria transported ideas and philosophies along with spices and silks. The link was not just overland; as the *Periplus of the Erythrean Sea*, a Greek merchant's handbook from Emperor Nero's time, indicates, ships were busy

ferrying cargoes of spikenard, pepper, pearls, ivory, silk and muslins, jewels, costus root, bdellium (gum resin of myrrh), carnelian (red dye), lycium (gojiberry; wolfberry), and indigo to the Romans. In return, the Romans sent wine, copper, tin, lead, coral, topaz, storax (Asian sweet gum), sweet clover, glass, frankincense, and finely woven clothing.³ Already as early as 200 BC there was an Indian merchants' colony in Alexandria, Egypt; they certainly influenced the Alexandrian philosophers and contributed to Gnostic and Neo-Platonic thought.⁴ Perhaps they influenced the sect of the Essenes, who appeared in Palestine about this time. Their mode of monastic life, involving asceticism, ritual bathing (baptism), and vegetarianism moves them into proximity of Eastern influences.

But the contact with the East was even older than that. Wise men of India, clad only in "the four directions" and therefore called gymnosophists (the naked wise) by the Greeks, appeared at the agoras, the assembly palaces of the Greek cities, and discussed philosophy. The doctrines of Plato (the world of ordinary men as an illusion, the great cosmic cycles, etc.) and Pythagoras and the Orphists (the need of the soul to escape the eternal cycle of transmigration by means of asceticism and strict vegetarianism) betray the gymnosophists' influence. The Greek medical doctrine that body fluids must be kept in balance and that sickness is due to the overflowing of incensed humors, as well as elements of pharmacology and dietetics that both cultures held in common, might be the legacy of the gymnosophists.

Buddhist monks, moved by compassion for suffering beings, trudged westward along dusty trails and brought Ayurvedic concepts and herb lore with them. One day Lord Buddha saw a monk sick with dysentery rolling in his own filth. He washed the sick man, made him a comfortable bed, and then told his disciples,

Brethren, you have no mother or father to care for you.

If you do not care for one another, who else will do so?

Brethren, he who would care for me should care for the sick.

Since then, bhikkus have studied medicine and become caretakers of medical lore just as in medieval Europe Christian monks became the medics and physicians. It was not just accumulated traditional herb lore that was safeguarded, but the meditation techniques of emptying the mind and separating illusion from the essential with the mind's eye were also applied to diagnose patients and find herbal remedies. The contributions of these holy men became interwoven with the medical systems of the Babylonian, Egyptian, and Aegean realms and with the native wisdom of the local herb women to form our cultural heritage of herbalism.

Mesopotamia

As in India, herbalism in the Fertile Crescent loses itself in the mists of time. For the ancient Sumerians and Babylonians, demons were the immediate cause of disease. Diagnosis consisted of reading omens in the stars and scrying the liver of a sacrificial animal into whose nostrils the patient had breathed. The cure consisted of incantations, rituals, and the administration of herbs. Perhaps it is here that the *Dreckapotheke*—remedies made from abominable, filthy things—first came into use as a means of scaring the demons out of the patient.

Assyriologists have painstakingly deciphered the cuneiform writing etched into clay tablets by a Sumerian physician some three millennia BC.⁵ About 250 remedies are listed in what might be called the first handbook of medicine. Salt, saltpeter, milk, snakeskin, and turtle shells are listed, but ninety percent of the medicines are plant substances. The names of the illnesses are given as the names of demons and thus are not easy to identify. Likewise, plant names such as “Raven’s foot plant” leave us in the dark. Nonetheless, some species have been clearly identified, such as senna (*Cassia angustifolia*), a laxative; myrtle (*Myrthus communis*), a plant rich in essential oils; devil’s dung (*Ferula asafoetida*), used for bronchial and digestive difficulties; deadly nightshade (*Atropa belladonna*), a

narcotic that can lessen pain in cases of neuralgia and soothe asthmatic spasms and intestinal colic when used in the right doses; hemp, effective in calming nerves and relaxing the bronchi; white hellebore (*Veratrum album*), a violent poison that might have been used on obstinate skin diseases or for a kind of “shock therapy” for mental afflictions; as well as thyme, willow pear, fir, date, and colocynth. The carminative cumin (*Cuminum cyminum*) and myrrh (*Commiphora myrrha*), an astringent commonly found in our tooth powders and mouthwashes, have even kept to this day their ancient Akkadian names, *kamun* and *murra*, respectively. Myrrh seems to have been used as a disinfectant, along with alum.

The simples were cooked in salt or alkali and then filtered before being administered to the patient along with incantations. Licorice root, given for coughs, was cooked with olive oil and a narcotic. One recipe calls for pear bark in beer, beer or milk being a common medium for a drug.

What especially interests us here is that the medicinal herbs were picked and administered according to the planets and their houses. The idea of good and bad days—an anticipation of the concept of bio-rhythms—goes back to Mesopotamia also. The vision of the cosmos as a gigantic, macrocosmic man (Macroanthropos), composed of the twelve regions of the zodiac through which seven visible planets wander, was the imagination of the hierophants who built the stepped pyramids (ziggurats) as astrological observation platforms. The individual human being was seen as a miniature image (microcosm) of the cosmos. The twelve regions of the zodiac corresponded to twelve regions of the body, and the planets corresponded to the organs. If an organ became afflicted, it was to be cured by an herb that belonged to the corresponding planet. To increase the potency of the herb, the heavenly planet (or planetary god) needed to be in a good house; otherwise the medicine would not be as effective as it could be.

The priests who dealt with medicine in this way must have been successful because it is recorded that if the patient dies, the doctor will be held responsible for murder. If an eye of a patient were lost during an operation (and if he were a free man), the doctor's hand

would be chopped off. Physicians who can't cure were physicians who had lost the favor of the gods and should be punished for their imposture.



Correspondence of body parts
and zodiac signs, Strasburg 1484

([illustration credit 1](#))

Astrological medicine of ancient Mesopotamia spread worldwide. Ayurvedic doctors in India still make use of the horoscope in their treatment. In the Roman Empire and during the Renaissance these ideas reached heights of popularity. Paracelsus and Nicholas Culpeper, the most successful practitioners of their time, had no doubt about the influence, the “flowing-in,” of the “asters” (stars). Even modern medicine is moving closer once again to taking the cosmic factor into consideration: a surgical nurse in a German hospital told me that when operations take place around the full moon, the bleeding is much heavier than in operations around the new moon. The Czech researcher Dr. Eugen Jonas found that there is a 98 percent chance that women will conceive in the same lunar phase in which they were born.⁶ Sunspot activity—which correlates with epidemic diseases, good vintage years in Bordeaux, famines in

India, and more icebergs in the waters off Iceland—is due to the alignment of the planets, which form a gravitational arch that exerts an uneven pull on the corona of the sun. Maria Thun has been able to show that specific weed seeds are more prone to sprout in certain constellations⁷ and that the sidereal moon affects the growth of plants depending on which sign it is in.⁸ Perhaps the Sumerians were wiser than we dare admit?

The Egyptian Tradition

The Greeks looked with awe to the Egyptian mysteries, and to the Romans the land of the Sphinx suggested the ancient, venerable past that Rome itself suggests to us. As in all ancient cultures, the doctor was part of the priesthood. Each physician was responsible for curing only one illness. The god-king was attended to by a host of medical practitioners, each specializing in one body part and bearing such titles as Royal Keeper of the Pharaoh's Left Eye, Royal Keeper of the Pharaoh's Right Eye, or Shepherd of the Royal Anus.

Every culture has a model by which it integrates its medical and anthropological insights into a body of knowledge. Our modern model is that of the machine and computer. The Mesopotamian model was that of the movement of the planets through the zodiac. One of the models of ancient India was that of the three seasons of the subcontinent: cool, windy spring (*vayu*); the hot, angry, premonsoon season (*pitta*); and the calming, wet, shady, monsoon season (*kapha*). Abstracted from this are the three humors (*dosas* or *dhatus*), which appear in the body as “wind,” “bile,” and “phlegm.” In Egypt, the medical analogy was provided by the flood rhythm of the Nile, regularly cleansing and fertilizing the thousand-mile-long oasis. Just as the Nile flows from Nubia to the Mediterranean, so the alimentary tract flows from the mouth to the organs of elimination in the human body, bringing health and cleaning out impurities. Illness is due to the blockage of this benevolent flow; hence an emphasis was placed on purgatives, laxatives, enemas, and bleeding. The idea of bleeding patients was picked up by the Roman physician

Galen and was practiced until the dawn of the twentieth century in our society.

As everywhere, herbs were the preferred medicines. Temples had their own herb gardens, containing mainly purgatives. An example is the herb garden at the temple complex of Edfu, in Upper Egypt (2400 BC). The following species were found therein:

- **Bitter cucumber** (*Citrullus colocynthis*), a relative of the watermelon, which is a drastically violent cathartic
- **Cardamom** (*Elettaria cardamomum*), a carminative, helpful in indigestion
- **Castor bean** (*Ricinus communis*), an excellent laxative
- **Cumin** (*Cuminum cyminum*), a digestive and carminative that also stimulates the glands, producing stronger milk flow in nursing mothers and better menstrual flow
- **Fennel** (*Foeniculum vulgare*), a carminative, also soothing for coughs
- **Flax** (*Linum usitatissimum*), the crushed seeds of which make a good poultice for boils and abscesses, and the oil is a laxative and emollient for the intestinal tract
- **Garlic** (*Allium sativum*), a true heal-all, especially effective in lowering blood pressure
- **Juniper** (*Juniperus communis*), a good diuretic given for cardiac and hepatic dropsy, a stomachic and a carminative
- **Madonna lily** (*Lilium candidum*), the mucilaginous bulb of which can be made into emollient cataplasms for tumors and inflammation, ointment for burns, and for female complaints
- **Mandrake** (*Mandragora officinarum* or *Atropa mandragora*), the root of which is an emetic and purgative, juice is an anodyne and soporific, and leaves dry up skin inflammation and weeping sores
- **Maple** (*Acer*), use unknown, possibly astringent
- **Opium poppy** (*Papaver somniferum*), a narcotic and sedative

- **Pomegranate** (*Punica granatum*), the root and bark of which are used against tapeworms and fruit and flower as astringents
- **Senna** (*Cassia angustifolia*), an effective laxative

All of these plants are effective to this day in their medical action. Common therapeutic practice was to fast and bathe the patient and then put him into a hypnotic sleep within the temple compounds at the feet of the goddess Isis. The Great Mother would appear to the patient in a dream and indicate a remedy. The Greeks of the school of Asklépios (Aesculapius) later took up this method of healing.

Greek and Roman Medicine

The early Greeks shared the tradition of the wise women so common in Indo-European societies. We read in the *Iliad* of “yellow-haired Agamede, who understood as many drugs as the wide earth nourishes.” *Rhyzotomi*, root gatherers, roamed the field and forest for simples. The deities of the netherworlds were propitiated with magic and sacrifices, and herbs were thought of as the “blood” of chthonian animals. Some time back in the fifth century followers of the god Asklépios set up temples of healing where the sick were massaged, bathed, given herbs, and “incubated” (put into a hypnotic sleep) after a rooster had been sacrificed before the god. Dogs and sacred serpents were fed in the temple compounds. As with the Hindus, Mesoamericans, Egyptians, and Cretans, serpents were associated with healing powers. So successful were the Aesculapian priests that Pluto, Lord of the Dead, accused them of diminishing the number of shades in Hades.

Asklépios’s mother was a nymph, and his father was the sun god, Apollo, who smote people with his darts, causing illnesses as well as healing (as Apollo Alexikakos). In this way, Asklépios is the offspring of two worlds, the chthonic (earth) forces and the solar forces, just as his Hindu counterpart, Dhanvantari, is the pupil of the solar eagle, Garuda, as well as of the master of serpents, fever, and magic, Shiva. Panacea (the heal-all) and Hygeia (hygiene) are the

daughters of the great healer Asklépios, who had learned the medical arts from the centaur Chiron. Asklépios's sign is the caduceus, a staff with two snakes entwined, facing each other as venom and antidote. This scepter becomes the staff of Hermes (Mercury), the god of healers, merchants, messengers, and thieves, and is to this day the symbol of both medicine and money (the dollar sign). The Greeks identified Thoth, the Egyptian god of healing, with Hermes (Hermes Trismegistus).

Hippocrates (460–370 BC) came from a family of Aesculapians on the island of Cos, near the coast of Asia Minor. This area was the interface of the Hellenic cultures and those of the East and the Levant. As happens in nature where two ecological zones intersect, there is a lot going on; there is a lot to combine, interpret, and explain. In short, it is an area where one can expect artistic and intellectual synthesis.



Caduceus and dollar sign

([illustration credit 2](#))

The cause of disease, according to the ancient Greeks, was the offending of the gods or sorcery, usually in the form of the evil eye.

Hippocrates, however, saw sickness mainly as a battle between the forces of death and the natural self-healing ability of the body. He taught that it was the duty of the doctor to help, no matter what the cause. His therapeutics consisted of a good bedside manner, assisting natural healing processes with fresh air, diet, purging, bloodletting, herbal teas, hydromel (honey and water), barley water, oxymel (honey and vinegar), massage, and hydrotherapy. Black hellebore (*Helleborus niger*) was used as the universal purge, and white hellebore (*Veratrum album*) was the universal emetic. Some five hundred herbs were used in all. For this rational approach and for the formulation of an ethical code (the Oath of Hippocrates) that modern physicians would do well to read in its original version, he has justly been called the Father of Medicine.

Most of the doctors of Rome were Greeks. Pliny does not seem to consider this to be necessarily a blessing. For some six hundred years, he remarks, the sturdy Romans had gotten along without such doctors using chants, rites, and herbs. Two gifted Greeks from Asia Minor, whose thought influenced medicine until the dawn of the Enlightenment, stand out above all. The one is Dioscorides, a military doctor with the armies of the emperors Nero and Vespasian. In the far reaches of the empire, between campaigns, he had the leisure to study and write the first medical herbal (*Peri Hyles Iatrikes*), which described some six hundred plants, their use, the time to gather them, and how to prepare and administer them. Undoubtedly, the old knowledge of the herb-gathering women found its way into his work.

The other and even more famous physician, Claudius Galen (131–210 AD), court physician of Emperor Marcus Aurelius, was more influential, dominating medical theory in the Christian West as well as the Muslim East. He is best known for his theory of the four humors, whose correct balance in the body constitutes health. Picking up on the four Aristotelian elements (earth, water, air, and fire), he recognized their effect in the body as “black bile,” “phlegm,” “yellow bile,” and “blood.” If these body fluids are balanced, one is in “good humor”; and if one or more are excessive,

one is in “bad humor.” The humors have a number of secondary and tertiary qualities, which Galen described in some four hundred writings:

- Blood is hot/moist, red, sanguine, and sweet.
- Yellow bile is hot/dry, yellow, choleric, and bitter.
- Phlegm is cold/moist, white, phlegmatic, and salty.
- Black bile is cold/dry, bluish, melancholy, and sour.

The function of medicine is to balance these four elemental forces, and this is done primarily with diet and herbs, the administration of which has to be carefully measured so as to avoid excesses. For his rich and powerful Roman clientele, Galen invented fanciful medicaments containing at times over a hundred odd ingredients. His long-winded prescriptions were written and decorated with mystical Egyptian symbols that were sure to impress the clientele. A popular decoration gracing the prescriptions was the Eye of Horus (udjat eye).

As the Egyptians tell it, Horus, the god of life and light, battles the evil, dark god of death and desert, Seth, to avenge the killing of his father, Osiris. In the struggle Seth plucks out his eye—the moon that lights the night sky. Mother Isis calls upon Thoth, the ibis-headed god of wisdom, healing, and letters, to magically restore the eye. In this way, the Eye of Horus becomes a symbol of healing and is engraved onto amulets and written on lists of healing substances. Becoming simplified in the course of time, it has come down to us as the symbol of prescriptions, Rx (and the drugstore Rexall).



The Eye of Horus

([illustration credit 3](#))

Galen's crammed prescriptions (polypharmacy) stayed in vogue into the Renaissance, when the style drew the scorn of such keen minds as Paracelsus. Rather than combining a mess of a hundred different ingredients, which makes it impossible to monitor the effect any single ingredient might have, these doctors preferred single herbs. Such herbs, usually given as a tea or applied as a poultice, were called simples. Paracelsus railed against Galenic prescriptions. He advocated alchemically prepared minerals, in addition to botanicals, because to him, as to Hildegard von Bingen before him, the whole universe was in the hand of God and offered healing and salvation to suffering humanity. In the ensuing centuries, physicians calling themselves Paracelsians made even greater use of inorganic alchemical substances, using ever more potent doses of metals and mineral poisons, and looked with scorn upon those who continued to doctor only with herbs. Herbs were considered to belong to the outmoded methods of Galen. Hence, ironically, vegetable simples came to be known (and are to this day) as galenicals.

The Arabs

Were it not for the Arab-speaking scholars and physicians of the early Middle Ages, the herbal of Dioscorides, Galen's books, and Aristotle's four elements (along with other aspects of his natural science, such as its theory of entelechy and its physiology, in which the brain is the cooler of the body, the heart is the center of the nerves, and the liver is the seat of life) would have been lost to us. We owe the continuation of alchemy to the Arabs, that science of the transformation and purifications of substances, which would become the basis of modern pharmacology as well as chemistry. *Alchemy*—the very word is Arabic, like so many words pharmacists use: elixir, syrup, alkali, julep, alcohol, aldehyde, borax, aniline, camphor, and so on. *Al-kemi* means “black earth,” referring to the black soils of the Nile River valley. Since pharaonic times, the growing of fragrant herbs, extraction of their essences, and distillation have been part of the esoteric knowledge of the Egyptians—the domain of Thoth, who as Hermes Trismegistus became the patron of alchemical arts. Ancient Egyptian medicines, perfumes, salves, and ointments were not just for the sick but were used to embalm the dead so that the vital and animating souls, the *ka* and *ba*, could live happily in the tomb. Herodotus tells how specialists did the mummification. After drawing the brain out of the nostrils with a wire, they cut open the abdomen, removing the viscera and washing the cavity with palm wine and infusions of pounded aromatics: “They fill the belly with pure myrrh pounded up with cassia and other spices except frankincense and sew it together again. Having done so they keep it for embalming covered up in natron [sodium carbonate] for seventy days.” The technical skills involved are akin to those required for the preparation of medicines and have been retained by the Arabs. El Faiyūm was one of the ancient centers where herbs and flowers were made into balms and perfumes. Even to this day, street urchins will hustle tourists in Cairo to visit the perfume parlors and barter for rare essences distilled at El Faiyūm. The art of distilling and preparing herbal essences entered European pharmacopoeia by way of the Muslims, via Moorish Spain and Salerno in southern Italy. At first jealously guarded by Christian monks, who could read Arabic and

had the leisure to experiment with oven and flask, the arcane processes later blossomed into Western chemotherapy, liquor distillation, and the perfume industry.

Doctors used to make their own medicines. In the eighth and ninth centuries, however, pharmacies sprang up in Baghdad and Damascus. At first they were merely stores for dried powders and plants that the caravans had transported over wide stretches of desert and mountains. These Muslim pharmacists (*sandalani*, a name derived from the Arabic *sandal*, meaning Indian sandalwood) introduced a whole range of lucrative new drugs with long shelf lives that would fill Western apothecaries and vie with the locally grown simples of the common folk. Among them were senna, camphor, sandalwood, rhubarb, musk, myrrh, cassia, tamarind, nutmeg, cloves, cubeb, ambergris, and others.

Monasteries of the Middle Ages

In the Christian West, it was the church, through its monks and nuns, that carried on the classical tradition of medicine. At first, the relationship to herb lore was ambiguous to say the least. Traditional wortcunners and wise women were heathens and thus in league with the devil. True healing was to be derived from confession, penance, the Paternoster prayer, holy water, holy wafers, and perhaps pilgrimages to chapels that housed the bones and relics of saints. The peasants and common people, however, did not entirely trust these new methods. They continued to consult wise women and folk healers and to use familiar healing herbs. The Church was forced to compromise. Soon Mediterranean herbs and those mentioned in the Bible were grown in the cloister gardens.

By the twelfth century, wortcunning wise women even appeared in nun's garb. The best known is the visionary healer Hildegard (1098–1179), abbess of the cloister of Bingen. In visions she saw the entire universe, the macrocosm and the microcosm, radiating out of God's love. The angels, animals, plants, and rocks and the human being, body, and soul are all part of the great harmony of being.

When man fell out of the great harmony, due to error and sin, he lost vigor and the joy of life, became weak, and fell subject to infirmity and illness. But all of nature is part of God's dialogue with mankind, leading to his restoration as the *Imago Dei*. The whole macrocosm—all of nature, not just relics and holy water—speaks to the fallen human being of God's love. Hildegard praises the ever-renewing, life-giving, healing power of vegetation. This power, which she calls *viriditas*, is found in all plants: in the traditional worts and herbs of the wise women as well as in the classical and biblical herbs.

Just as Hildegard did not condemn the indigenous plants, she did not bedevil the body and its functions. To do so would be to find fault with God's creation. In the manner of the old midwives, she was not afraid to deal kindly and openly with the sacraments of sex, the mystery of generation, and the joy for a man and a woman it implies. Hers was a vision of the heart, a cosmological vision of the wholeness ("holy-ness") of being. In that, it was quite different from the quasi-materialistic, rationalistic medical teachings that young doctors in her time were about to pick up eagerly from Arabic and Jewish teachers at the universities of Toledo and Salerno.

The first monastery in Europe was Monte Cassino (Italy), founded by Saint Benedict in AD 527. It was a self-sufficient community where brethren in the Lord could pray, work, and worship. The work included raising vegetable crops and medical and culinary herbs needed by the cloister. Soon similar monastic communities, founded on the Benedictine model, sprang up all over Europe. The great Frankish king Karl the Great (Charlemagne) furthered these monastic communities. Centuries of barbarian migrations and turmoil had destroyed the Pax Romana; therefore, when Karl became emperor of the restored Holy Roman Empire, he did his best to stimulate agriculture, horticulture, and medicine. *Capitulare de Villis imperialibus* (AD 812) lists the plants that Karl wanted in his gardens. This became a useful checklist for the monastery gardens.

One of the typical Carolinian cloisters was the famous monastery of Saint Gall, near Lake Constance. The abbot, Walafried Strabo,

the herb of repentance. For the monks, all creation was a living allegory of God's divine intent, and the plants were primarily signs and symbols to remind erring human souls of the deeper verities of this brief life. There were plenty of flowers dedicated to the Virgin, such as lady's thistle, lady's slipper, lady's candlestick (mullein), rosemary, marigold, and many more.

Even to this day, flowers and herbs have symbolic value amounting to a secret code whereby lovers might communicate the subtlest of feelings. The romantic language of flowers was to be part of the dillydallying at the courts of high chivalry. Dock might mean "patience"; chervil, "sincerity"; foxglove, "insincerity"; maidenhair fern, "virginity, which I dedicate to you"; hawthorn, "hope"; purple iris, "my heart is aflame with ardor"; and loosestrife, "forgiveness." Some of this symbolism is still to be found in Valentine's Day cards.⁹

Next to the cloister infirmary was the "physic garden," replete with medical herbs that would remedy sick monks and local villagers and townspeople. Savory, rose, watercress, cumin, lovage, fennel, tansy, white lily, sage, rue, corn flag (*Gladiolus*), pennyroyal, fenugreek, mints, rosemary, southernwood, horehound, and wormwood were among the plants tended by the *gardenarius* or *hortulanus* and his assistants (*famuli*). A fourth kind of garden was the vegetable garden of the cloister, where vegetables and kitchen herbs were grown (including onion, garlic, leek, shallot, celery, parsley, carrot, chervil, coriander, dill, parsnip, lettuce, poppy, savory, radish, and beet).

Occasionally, a fellow monk would travel from a distant land and bring a manuscript concerning plants or even some seeds or cuttings from an unknown botanical in his satchel. In this way, the Benedictines introduced new species, usually of Mediterranean origin, into the newly converted lands of the north and east, thus keeping alive the hoary tradition going back to the Romans and Greeks, all the way to ancient Egypt.

The Heathen Tradition

Hail thee, gods and goddesses!
Hail thee, all-nourishing Earth!
Right speech grant us, and keen mind,
To that, lifelong, healing hands.

—*Edda*, “The Song of Sigrdrifa,” verse 4; early thirteenth century

In reading the Christian accounts of this time, it seems that without the aid of the Benedictines, Cistercians (an order under Benedictine rule), and other men of the cloth, the common people would have been left entirely bereft of the knowledge of healing and “real culture.” This is certainly not true! There was a strong tradition of wise women who knew every herb, of wortcunners, leeches (Old English *laece* = physician), bone setters, midwives, and shepherds, whose roots reach beyond the Celtic druids to the tribal societies that had set up the megalithic monuments, such as the Carnac Stones in Brittany and Stonehenge in England. The most recent scholarship shows these stone structures to be contemporaneous with the earliest pyramids of Egypt. Even older is the cultural substratum of the hunters of the Old Stone Age, whose cave paintings of bison and other game are found in the Pyrenees of France and Spain. The environmental wisdom of these people lived on in Europe and was eventually augmented by Indo-European invaders, who came in successive waves from Central Asia and settled as Latins and Hellenes in the Mediterranean basin and as Celts and Slavs in the north.

The fact that, even to this day, peasant herbalists in some areas of Europe refuse to use iron utensils to dig up roots, but prefer wooden dibbles, stag antlers, or copper tools, could indicate that the custom traces back to before the Iron Age (1000 BC in Europe). In the same way, Celtic druids never used iron knives to cut sacred mistletoe from the oak trees, only golden blades. In the realm of sacred custom, to which healing and herb gathering belong, the archaic maintains itself over long spans of time. (This is clearly shown in the sacred, ceremonial use of languages long dead in the priestly cults of several religions.)

By no means, thus, was northern Europe a tabula rasa when the Christians came. A vital culture was thriving, and it was for political expediency that some of the barbarian aristocracy claimed to be descendents of the fallen Roman Empire and took up the faith of Peter and Paul. Foremost, the Frankish kings saw it to their political advantage to put *Herre Krist* (Lord Christ) upon their banner and submit those who did not let themselves be baptized with water to a baptism in blood. In the wake of this “conversion,” the monasteries and their monks did the ideological cleanup. They forbade the old tribal gods. Woden (Odin), Thunar (Thor), Holle (Mother Elder), Baldur, and Freya were turned into “devils” and their priests dubbed devil worshippers. The minor mythology that deals with spirits, dwarves, elves, and the cycle of minor festivals was so deeply ingrained in the common folk that it was not to be rooted out—the church usurped it.¹⁰ Pagan holy days were reinvented, such as the reappearance of the White Goddess becoming Candlemas; springtime festivals of fertility were replaced by Lent; and solstices and equinoxes were co-opted and given a Christian veneer. For a while authorities forbade herb gardens other than those that existed in the monasteries. At the height of the Middle Ages the gathering of magic herb bundles was placed under Church auspices: on the day of the Blessed Virgin’s Assumption (August 15) priests officially blessed the healing herbs that women carried to the church.¹¹ Originally, many herbs had been given the names of the gods, who had revealed them to the heathens: monkshood (*Aconitum napellus*) had been Tyr’s helmet; valerian (named after the monk Valerianus) had been Velantsurt (the root of Wayland, the magical smith); merzeron or February Daphne (*Daphne mezereum*) had been Tyr’s tree; and most of the herbs that now have the name of the Virgin, Our Lady, or Mary at one time carried the name of Freya—who was, after all, the matron of the ancient wise women and midwives.¹² These wise women, who in the old heathen society had possessed much power, were now called witches and as such were accused of sending illness, making fields and cattle infertile, making men impotent, spoiling the “fruit of the womb,” and even killing babies,

while encouraging unnatural and lewd sex. In other words, their function in society was being inverted.

All this should not be surprising, however. In any “civilized” society, the practice of healing, the methods of procreation, the feeding of the hungry—and in fact the ability to satisfy basic needs—are always monopolized (or at least sanctioned) by the holders of power because power is based on the ability to satisfy these needs. In our secular modern age, healing by exorcism, herbs, or the laying on of hands (like organic agriculture and explicit orgiastic sex) is, at best, tolerated: when it comes down to the nitty-gritty, one is obligated, often by force of the law, to go to a modern temple of health (hospital) staffed with authorized physicians.

And yet old heathen herbal knowledge has survived. For many centuries, if the physician at the monastery did not succeed, the simple peasant would secretly go to the bonesetter, wortcunner, or wise woman. The monks might know exotic Mediterranean herbs, but the “heathen” would know the “worts” of the field and forest near his or her home. One would not expect to find love potions and aphrodisiacs, for example, with the monks, to whom carnal pleasure was a sin. But the “witch woman” would know the brew and the spell that would win the heart of the beloved. She also knew how to bring a child over the threshold into this life, how to lessen birth pangs, and how to increase meager milk flow with a concoction of caraway, wild carrot seeds, or beer. If need be, she would even know how to get rid of an enemy or harm a jealous or malicious neighbor by brewing a potion of baneful worts. Those who know the healing herbs know the poisonous ones, as well. A bonesetter without the aid of x-rays would know how to mend broken limbs with knitbone (comfrey), storksbill, hound’s-tongue, and other herbs along with a splint and a powerful spell, such as this one from a tenth-century manuscript found at Merseburg in Saxony, in which the shamanic god Wodan sings,

Be it bone sprain,
Be it blood sprain,
Be it joint sprain:

Bone to bone,
Blood to blood,
Limb to limb,
Be they fastened
As though glued.

Above all, these wizards knew how, by means of nightshade and other drugs, to travel into the invisible side of the world to find out the root of illness (the hidden “worm” that caused sickness), to see the spirits, and to talk to the “devils”—a sin that was severely punished by the officials of the Church. Until the turn of the millennia, the Church had to be somewhat tolerant of these practices because it was not yet firm in the saddle. In the south, from Spain and Sicily to the east, it was threatened by fanatic Saracens and Moors, and in the north it was threatened by a late and vigorous flowering of Germanic heathen culture in Scandinavia, which suffered incursions from berserk Vikings, who could appear on any coast at any time to burn, loot, and kill. But around the year 1000, the Nordic aristocracy, again for political considerations, opted for conversion, and the Muslim threat was, for the time being, banned following military reverses. It was not long before the Inquisition began to move against “witches” with rack, wheel, and stake. Women who were found not to be fully convinced of original sin and the mercy of God Almighty were tortured and burned by the millions. The Protestants were just as eager to root out the vestiges of heathenism as were the Dominican padres.

It was into the hinterlands of deep forest and heath that the wortcunners and wise women retreated to escape the arms of the Inquisition. Here, in the backward regions of the Alps, the inaccessible regions of Wales and Scotland, and the Gascogne, the old traditions of herbalism, starcraft, and leechdom survive. Until recently, one could still see the *Kräuterweibl* (herb-hags) carrying wicker baskets full of roots and leaves to the *Naschmarkt* from the Vienna Forest, and it is perhaps no surprise that the great French herbalist Maurice Mességué hails from the economically backward but tradition-rich region of the Gascogne.

Some Modern Herbalists

Possibly because of the persecutions, but also because of the need for quiet serenity, not much is known publicly about the tradition of herbalists. In this century there has been a kind of “coming out of the closet” for them. But becoming public often spells the end of the tradition.

It appears that these herbalists are a strange, secretive, unconventional lot. To the anthropologist, they have much in common with the shamans, medicine men, and witch doctors of the primitive societies that the academics study. Often they dress funny, live in unusual places, have odd habits (such as not cutting their hair—“hair is an antenna with which to pick up vibrations”), eat a strange (often vegetarian) diet, are “religious” but not “churchy,” do not drink strong spirits, and the like.

My own esteemed teacher, Arthur Hermes (1890–1985), lived in an old farmhouse built into a knoll overgrown with ivy, holly, oak, ash, and elderberry. Beneath this green canopy were tremendous granite boulders—megaliths erected by the ancient druids, he claims. I checked with the Department of Prehistory at the University of Geneva, and they are indeed prehistoric megaliths. His old farmhouse was crammed full of rocks, fossils, and herbs such as Saint-John’s-wort, horsetail, nettles, and yarrow, hung up in bundles to dry. Bees and butterflies flew freely in and out of the living room on sunny days, and in the winter a fire crackled in the tile stove. Hermes claimed that each wood provides a heat of a different quality depending on which planet the wood belongs to. One might want the hot, dry Saturn heat that pinewood provides, the rich Jupiter heat from maple wood, a Mars heat from oak wood, or perhaps a cool Moon heat from poplar wood. His son, who carved musical instruments, the likes of which the world had not yet seen, listened at the trunks of the trees to hear how the wind sounded in them before cutting and curing them for seven years for carving violins or monochords. As most herbalists find, the planets are very important since all plants belong to one planet or another. Hermes

picked the plants on the days that belong to their planet. He did not touch a drop of alcohol or eat meat (other herbalists do, however) because “it dulls the fine senses,” the ability to “listen into the spirit of nature.” The keenness of the senses and mind is so important to perceive the qualities of the plants.

Hermes was an imposing man, even in his old age, as though he were carved from oak or hewn out of granite. One eye was blind, the other blazing with an inner sun. He saw into the “inner side of the world” with one eye and into the world of external things with the other. With his wide-brimmed, weather-faded hat, he had the air of Woden, the shamanistic god of magic, runes, and spells of the Nordic people. People from all over Europe sought his advice, and he often left his forest farm, traveling to see doctors from clinics and mental hospitals, teachers and students who were not comfortable with the materialistic, logical, and positivistic explanations of the universe. His living room was stuffed with carvings, paintings, and piles of dusty books by authors such as Paracelsus, Agrippa von Nettesheim, Goethe, and Rudolf Steiner.

Rudolf Steiner (1861–1925) was an occultist philosopher and scientist who formulated the basic concepts of what was to become the biodynamic movement of agriculture, an organic method that uses a palate of herbal preparations as “medicine” for the “earth organism.” He also started a successful method for treating mentally handicapped human beings, the Waldorf school movement, a Goethean approach to the study of natural sciences, and a new practical theory of medicine.¹³ His anthroposophic medicine uses herbs that are grown organically and have been raised on compost treated with biodynamic herbal preparations.¹⁴ They are administered as teas, in baths, as ointments, or in homeopathic drops and sugars. Steiner’s indications about the use of mistletoe for cancer therapy have been included under the patented name of Iscador in conventional therapies.

In his autobiography, Steiner tells how, as a student, he happened to meet a wortcunner from the Vienna Forest who was taking his dried simples to sell to an apothecary. Steiner befriended him, visited him often in his humble cottage, and slowly learned the

closely guarded secrets of the community of herbalists. “In his presence, one was able to pierce deeply into the secret of Nature,” Steiner writes. “While he carried his bundle of healing herbs on his back, he carried within his heart the inner Spirit of Nature, which he had harvested along with his simples ... and so it ever more seemed to me as if I had been brought into the presence of a soul of ancient times, untouched by civilization, science, and contemporary thought—a soul that brought to me the instinctive Wisdom of the Past.”¹⁵ Later biographers have ferreted out the name of the herbalist as Felix Koguzki.

Like Felix of the Vienna Forest, Maurice Mességué came from a line of herbalists who worked with their esoteric knowledge, quietly helping simple village folk for centuries. Mességué became famous for his cures, and kings, prime ministers, prelates, and presidents came to him in his village in the Gascogne to be helped with their ulcers, hearts, lungs, kidneys, and livers. He writes¹⁶ that his father, from whom he learned the trade, was an unusual man who dowsed for water, healed without taking a fee (it is, after all, God who makes the herbs grow that do the healing), hated the tongue-twisting scientific names, and even had his own names for most plants. His very favorite and most potent plant was the *herbe aux hirondelles*, the “swallow’s plant” (actually the greater celandine, *Chelidonium majus*), so called because of its effect on swallowtails: it will make a dying person cry and a person who is going recover laugh. But what was oddest about Mességué’s father was that he never touched a drop of wine, not even that which grateful peasants poured him as thanks for a cure. Can one fathom what that implies for a Frenchman, not to touch wine? “*C’est le sang du Notre Seigneur!* The blood of the Lord!” It is the equivalent of a red, white, and blue patriot who refuses to eat hamburgers or drive an automobile. Since then, Mességué has become rich and renowned, but the esoteric tradition has been broken: his sons apparently show neither interest nor inclination for the path of herbalism.

The greatest wortcunners, however, are not the famous ones like Mességué and Steiner, who treat us with interesting writings, but the quiet, wise country women, the grandmothers and the great-

grandmothers, whose lifelong experience taught them the right herb for any ill and the places where these plants grow. From mother to daughter such knowledge—especially that which concerns childhood ailments, child bearing, nursing, and women's troubles—was passed by word of mouth, never to see the printed page, never to enter the ear of the scholar or the parish priest. Along with lullabies that put children into the world of sweet dreams and fairy tales that pass on ancient wisdom about the nature of the soul and the laws of the earth, this wisdom passed to the threshold of our days—when the breakup of handicraft and the rural lifestyle and the rise of outside employment, careers in industrial and bureaucratic processes, chemical birth control, precooked, canned, or fast foods, college (mis-)education, mass media, and television severed humanity from these roots.

Celtic Roots

Much of the herb lore of our culture stems from the Celtic druids. The Celts, with roots in the West Asian steppes, once inhabited most of Europe, spreading all the way to Asia Minor (where they appear as the Galatians of the New Testament). For a long time they were even a threat to Rome. Only the honking of watchful geese, caged on top of the city walls, saved the Eternal City from pillage in 390 BC. Later the Celts survived only on the edges of the Atlantic (Ireland, Brittany, Wales, and Scotland), being caught between the anvil and the hammer of the expanding Roman empire and the Teutonic tribes coming from the Scandinavian north. To the Germanic tribes, the Wales, Welsh, or Walloons, as they were called, were renowned for their magic and knowledge of the occult. Their priests, the druids (like Merlin, the magician), were feared and respected. They entered Germanic folklore as the Truden, sorcerers and witches who live in inaccessible moors, forests, and hidden places and have knowledge of herbs and power over the weather. They could be called upon to rouse the rain, for example. For the

Romans, too, the Celts and their druid priests could be awesome, meeting the legions for battle with their stark-naked bodies tattooed with blue woad (*Isatis tinctoria*) and their arrows poisoned with wolfsbane (*aconite*).

The druids were a caste of priests who worshipped at outdoor fire altars, much like their Indian counterparts, the Brahmans. The word *druid* is derived from the Latin *druidae* and from the Old Irish *drui* (wizard) and *duar* (oak). Related words are the Welsh *derwen* (oak tree), Old English *treow* (tree), Greek *dryas* (tree), and Sanskrit *daru* (wood) and *dru* (tree, branch, wood). The Greek *dryads* are tree nymphs. The oak was obviously the druids' most sacred tree. They even had a tree alphabet, as Robert Graves was able to show convincingly in *The White Goddess*.¹⁷ In oak groves, which harbored equally sacred holly, elder, and hazel, druids carried on their high magic, cutting sacred mistletoe from the trees with golden sickles. Much folklore and custom of northwestern Europe still bears the stamp of their rites. Hanging mistletoe over doorways and decorating the house with holly go back to druidic customs at the festival of the winter solstice.

As we gather from bits of folklore and old writings, herbs were picked and used in a highly ritualistic manner.¹⁸ The best time to pick an herb or dig a root was in the dark of the moon—an ancient custom that was still kept by Maurice Mességué's father, who claimed, "Moonlight saps their strength. For plants to be at their best, they need plenty of sunshine and very little moonlight." The best time of day, according to Celtic tradition, is at the break of dawn. The wortcunner should not wash, pray, talk, or greet anyone when proceeding to the desired plant and should then tell it for what purpose and for whom he is digging it. Besides mistletoe, staghorn fern, club moss, scarlet pimpernel, and vervain (*Verbena officinalis*) were especially sacred to the ancient Celts. As the Roman naturalist Pliny tells us, vervain was picked in the dark of the moon, at a time of the year when the Dog Star (Sirius) was visible. A magic circle was drawn around the plant. While digging, the appropriate chants were mumbled, and the face was turned toward the east, the direction of the rising sun. Vervain sprigs were used to ward off

inimical spells and for sprinkling lustral water to purify altars. Many healing herbs were picked at the dawn of midsummer solstice (Saint John's Day). Usually the gatherer had to be barefoot and wearing unstitched clothing without a belt, or go stark naked. The Gauls lifted the sacred herbs from the ground with their left hands and held them up, dedicating them to the heavens. The houseleek (*Sempervivum tectorum*), belonging to the thunder god, had to be picked between the flash of lightning and the clack of thunder.

The *Meddygion Myddfai*, traditional Welsh herb doctors, claim to be the direct heirs of the druid priests and their medical lore. Legend tells of a young cowherd who one day espied a golden-haired elfin woman sitting by the shore of a lake. Totally enchanted, he wooed her, and after the usual trials she consented to be his wife on the condition that he never reprehend or strike her. If he ever did so three times, she would be forced to flee back to the elfin land. They lived happily and had several healthy children. But one day, when she refused to go to church for a baptism, he chided her severely. When she cried at a wedding, he scolded her again, and finally, when she laughed at a funeral, he gave her a reprimanding tap. He had forgotten that she was an elfin being who cared not for Christian rites. Sad as she was, she had to keep her word and return to the watery otherworld. Before she left, amidst great sadness, she bestowed the gift of wortcunning upon her sons and the sons of her sons. They would become the famed *Meddygion Myddfai*, who cure people of their ills to this day. For the Celts, as well as for other Indo-Europeans, Africans, and Indians, water was always regarded as a doorway to the supernatural world. At lakes, springs, and seashores, magical beings, swans, swan maidens, talking fish, or nymphs may slip into our world—just ask old fishermen! Into the water, one step beyond the solid earth element, the neophytes of religions are dunked in order to “see” into the other world. David Conway, a Welshman, describes such a healer he had known from his childhood: though he “was the foulest tongue in Wales,” people consulted him whenever they or their animals were ill. He did not know the scientific botanical names but knew all the plants and

which planet rules them and in what planetary house to administer them.¹⁹

The early Irish church was much more tolerant of older traditions and permitted Celtic folklore to flourish within its confines. The Irish monks, long-haired like their druidic forebears, converted the Saxons of England and the heathen tribes of the continent. They included herb-wise individuals. One such monk was the hermit Saint Fiacre, born of a Celtic king. He left the splendor of the court and worldly power to meditate in a lonely forest in France (Saint Croix-Meaux). His cloister with his herb and vegetable garden became so well known that he eventually became the saint of vegetable gardening and hemorrhoid cures.

The Renaissance

The end of the Middle Ages ushered in a high tide of cultural activity, including a reappraisal of herbalism. For one thing, the pagan classical arts and scholarship were rediscovered along with the herbals of Theophrast and Dioscorides and the teaching of the planetary gods and the doctrine of signatures. Secondly, the invention of the printing press made the production of a number of herbals possible. And thirdly, Portuguese and Spanish conquistadors brought back strange, new herbs and spices that roused the interest of botanists, pharmacists, and doctors.

Constantinople fell to the Turks and dispersed the Byzantine scholars throughout the West. Brilliant Jewish physicians, teaching at Salerno and in Spain (before 1492) brought with them a rational, mechanistic approach. Gypsies appeared. The voyages of Columbus, Vasco da Gama, and other seamen and the decadence of the Church and the rebellion of the Protestants set scholars to the awesome task of formulating much-needed explanations. Europe became a cauldron of new ideas vying for the best explanation of the state of affairs. There were the Protestants (Luther, Calvin), who wanted epistemological surety by relying solely on the Bible as the “Word of God”; there were the “heathens,” like Paracelsus, who preferred to

look at nature directly, claiming that nature was the “second book” that God had written, being full of signs and symbols of his intent; there were humanists, to whom classical antiquity provided the best model; there were Neoplatonists (Agrippa von Nettesheim, Ficino, and Trithemius of Sponheim), who delved into occult and high magic; and there were rational reductionists, going back to Roger Bacon (c. 1220–1292), advocating what was to develop into the scientific method. It was an exciting time, full of marvels and excesses.

In the healing arts, also, “a thousand flowers bloomed.” New, horrible diseases, such as the plague and especially syphilis, put the old system of Galen and Avicenna into disarray.²⁰ Aureolus Theophrastus Bombastus von Hohenheim (1493–1541), who called himself Paracelsus, questioned the medical authorities and gathered his knowledge from wortcunners, peasants, witches, and Gypsies, as well as trying mineral substances from alchemical kitchens. Pietro Andrea Mattioli (1501–1577) wrote commentaries to the Greek physician Dioscorides. Italian merchants, the Portuguese, and the wealthy Fuggers of Augsburg imported strange herbs and cure-alls—folk medicines of the Americas and Asia—and sold them at steep prices. Botanical gardens (Salerno 1303, Venice 1333, Padua 1545, Pisa 1543, and Leipzig 1542, to name some of the more famous ones) sprang up, and physicians could have their simples right on hand. Paracelsus is the outstanding figure of the age. He grew up among the pine forests and peasants of Einsiedeln, in the wilds of Switzerland, as the only son of an impoverished Suebian knight, who served as a country doctor, and a former nun (or bonded woman) of the cloister hospital. From his parents he must have gotten a feel for the care of the sick, and the peasants with their folklore and simple herbs always stayed close to his heart. He wandered the world, partially as an army physician, which brought him close to the suffering of human beings. Though he took a medical degree in Ferrara, Italy, he credits wise women and simple folk, even the Gypsies, for his skills. He held a low opinion of the university curriculum for medicine in his days: most of the time was spent pouring over Galen, Avicenna, and Rhazes, after stuffing the

mind with *trivium* (grammar, rhetoric, and dialectics) and *quadrivium* (arithmetic, geometry, astronomy, and music). Patients were seldom actually examined, and doctors never bothered with local medical plants. Paracelsus preferred walking through the pages of the macrocosm, the fields and forests, which he called the “book of Nature,” rather than following old unproven authorities. In this way, he revolutionized medicine. To him, the universe was a universe of divine light that manifests itself on all levels: this light is health to the body, morality to the emotions, virtue to the soul, wisdom to the mind, and reality to the spirit. All the body’s organs can sense this light, and herbs can be a means by which the light is transmitted from the great macrocosm to the microcosm of the human being.

Paracelsus identifies five causes of infirmity:

1. Sidereal or astral influences (from the stars) working on the etheric (vital) body
2. The introduction of impurities or poisons into the body (drugs, food, and hygiene; overexposure to the elements; intemperance; obstructions blocking the circulation or causing constipation)
3. Wrong physical habits (overeating, intemperance in drink, etc.)
4. Intemperance of mind and emotion (morbid imaginations, fear, worry, doubt, confusion, uncertainty of purpose, false judgment of others, self-pity)
5. Spiritual causes, perhaps even in a previous life

In order to deal with the sick, the doctor needs compassion and love as a basis, not avarice (the desire for status, power, and wealth). He needs to have mastered *philosophia*—the knowledge of the “world below,” the empirical world of plants, stones, animals, and human organisms. He needs to have mastered *astronomia*—the “world above,” the heavens and constellations of the macrocosm as well as the inner microcosm, its rhythms, and its influences. He needs to have mastered *alchemy*, knowing the laws of the

transformation and metamorphosis of matter. And last but not least, he has to have *virtus*: moral uprightness.

Diseases were, to Paracelsus, entities whose spirits cannot really be destroyed. Just like the evil spirits that Jesus cast out of a man and drove into pigs, they must have a receptacle. This receptacle is a *mumia*.²¹ The spirit of the disease can be extracted out of the body and placed into a *mumia*, such as a plant that bears the signature of the disease. A gargle can pick up a sore throat, or an onion pack can pull the illness out of the body. The poultice (onion pack, or comfrey pack in the case of bone disease) will start stinking and become fetid as it extracts the disease.

Paracelsus's ability to cure difficult diseases brought him celebrity. Soon influential humanists such as Frobenius and Erasmus of Rotterdam sought his aid. His reputation paved the way for his appointment to the post of municipal doctor of Basel, which automatically entailed the position of inspector of pharmacies and lecturer at the university. Long before Ciba-Geigy and Sandoz, this merchant city on the Rhine was the city of alchemists and apothecaries. Its name is even derived from the poison-spewing alchemical monster, the basilisk.

The new professor started his career by publicly burning the books of Galen and other esteemed authorities in the Saint John's Day ceremonial fire; by demonstratively lecturing in German, rather than the Greek or Latin of the learned; and by bringing *Seich* und *Scheisse* (piss and shit) into the lecture halls to be examined. But his worst sin was to rail against the apothecaries, "whose shops are nothing but foul sculleries from which comes nothing but foul broths." He lasted only a year before irate burghers ran him out of the city.

Why did he refuse to adapt to the dominant society? After all, one does not bite the hand that feeds one! He answers in his prolific writings that he is concerned with the actual healing of the sick, not with monetary gain or brilliant theorizing. The foreign drugs that the Fuggers imported and the apothecaries sold were not only expensive and ineffective by the time they got to the patient, but were often even harmful. The herbs of indigenous field and forest

that the poor and the peasants rely on are more effective because the local “astral” influences, which cause certain diseases (today we would say climatic, environmental, and psychosocial conditions) are best cured by local herbs. God in his wisdom has arranged it this way: the healing plant grows in the same place where the illness originates. Such theories were not amusing to the local pill makers and merchants. By underwriting the expenses of the Hapsburg throne, the Fuggers had been granted the monopoly of guaiacum wood, imported from South America to be used against the dreaded *gallus morbus*, the French disease (syphilis).²² Paracelsus substituted a treatment of quicksilver tincture that worked more effectively but that, over time, led less knowledgeable physicians to use ever-greater quantities of such metallic and chemical substances.

The idea that local herbs, picked under the right conditions and properly cured, are better than expensive imports from overseas was picked up again at other times in history—by Nicholas Culpeper, for example, who thought that “English herbs are most fit for English bodies”²³ and the Shakers, who used native American herbs in preference to expensive imports from Britain.

In his *Herbarius*,²⁴ Paracelsus attacks the false information provided in the beautifully printed new herbals. The invention of the printing press a half-century before made the production and profitable marketing of such books possible. “If what they claimed were true, nobody would ever get sick or die again!” For us, these herbals are of interest because of the exquisite craftsmanship of the woodcuts and lettering, but for Paracelsus they were useless—great for the profits of the publishers, but pity the poor patient who tried to use the information! Much of it had been copied mindlessly from Greek and Arab sources, including misinformation, plagiarism, and fantastic claims. Often the illustrations were not fitted to the text. The situation seems analogous to the present time: we are flooded by colorful, glossy herbals that are often useless or downright dangerous.



Lady's mantle by Hans Weiditz
(sixteenth century)

([illustration credit 5](#))

Outstanding artists illustrated some herbals. The *Herbarium Vivae Eicones* of Otto Brunfels contains the excellent woodcuts of Hans Weiditz, a friend of the famous Renaissance artist Albrecht Dürer. When one compares the realism of these illustrations to the schematized illustrations in medieval manuscripts painted by the monks, one realizes that a change of consciousness of how the world is perceived had taken place. The perception moves from a more symbolic, intuitive form to a more precise, empirical, outward consciousness, marking the beginning of a new age. Precision and great care in observing external detail characterize the art in the herbals of Brunfels, Bock, Fuchs, and others. Ideas of the

correspondence of the human microcosm with the macrocosm of nature, the influence of the seven planets, and the doctrine of signatures form the ideological framework of most Renaissance herbalists. If man contains within him all the “elemental,” “astral,” and spiritual aspects of the universe, and, conversely, the universe that surrounds us is really a giant human organism, a Macroanthropos, then it is logically correct to assume that if something in the human organism goes awry, it can be augmented and healed by its corresponding macrocosmic element. How does one find the corresponding macrocosmic element? By reading its signature! As William Turner writes in his *New Herball* (1551),

God hath imprinted upon the plants, herbs and flowers as it were Hieroglyphicks, the very signature of their virtues as the learned Crollius and others well observe, as on the nutmeg being cut resembles the brain, the red poppy flower resembles at its bottom, the settling of the blood in the pleurisie, etc.

Giambattista della Porta (1536–1615), the Renaissance scholar who invented the camera obscura, took the greatest pains to systematize this approach. For headaches, what could be better than the walnut, which is a miniature cerebrum encased in a miniature skull; for scorpion bite, fenugreek, which has pods pointed like a scorpion’s tail? For a dog bite, the leaves of hound’s-tongue should be considered. The flowers of chamomile, resembling the pupil and iris, suggest their use clearly. The leaves of the liverwort, purplish underneath and liver-shaped, must be good for hepatic troubles. The tiny nodules on the root of the figwort must be the cure for hemorrhoids. Hairy plants, such as nettles, are good hair tonics.

These ideas were not altogether new but are found frequently in older cultures and in peasant lore. Scholars like della Porta merely compiled and systematized such insights. Yet in the final analysis, it was just such systematizing that brought these insights into discredit. For as Paracelsus points out in his *De Natura Rerum*, we recognize these “signatures” instinctively, much as the beasts in the field do. The conscious intellect, on the other hand, can too readily

make faulty associations by mere surface identity—and this is, indeed, what was increasingly happening: human perception was moving to the surface of the phenomena, from essence to appearance, from inside to outside. By the way, it must be added that many of the remedies found by means of signatures were, indeed, effective: nettle does make a good hair rinse; violet leaves can be slightly beneficial to the heart; figwort can heal piles; and liverwort is a mild remedy for liver disorders.

The use of astrology in herbology gained momentum during the Renaissance. Already in ancient times, one made sure that the plants were picked during the right lunar phase or constellation. Here, too, Renaissance scholars proceeded to systematize, trying to make an objective science out of what is half-intuitive, half-subjective and meditative.

Renaissance starcraft held that creative, formative forces streamed from the twelve regions of the zodiac onto the earth (the center of the universe), taking hold of primal, chaotic matter and impressing its ordering patterns upon it. As these archetypal forces stream to the earth, they pass through the spheres of the planets. These spheres are indicated by seven visible, moving bodies: from top to bottom, Saturn, Jupiter, Mars, the sun, Venus, Mercury, and the moon. After passing the lunar sphere, they begin manifesting themselves in visible, sensual forms. Depending on what position they occupy in the zodiac, the planets modify, weaken, or strengthen these cosmic influences. Everything in the visible world thus bears their stamp: minerals, plants, animals, weather, age, colors, and so on.

Planets	Moon	Mercury	Venus	Sun	Mars	Jupiter	Saturn
Metals	Silver	Quicksilver	Copper	Gold	Iron	Tin	Lead
Plants	Cucumber	Hazel	Rose	Sunflower	Garlic	Dandelion	Rue
	Lily	Parsley	Yarrow	Eyebright	Thistle	Grape	Cypress
Trees	Willow	Elm	Birch	Ash	Oak	Maple	Beech
Animals	Dog	Monkey	Swan	Lion	Horse	Eagle	Goat
Body	Brain	Nerves	Sex	Heart	Blood	Muscles	Spleen
organs	Skin	Lungs	Kidneys	Eyes	Gall	Liver	Bones
Virtues	Dream	Thinking	Desire	Joy	Anger	Dignity	Wisdom
Life stages	Infant	Child	Youth	Adult	Middle-aged	Maturity	Old age
Plant life	Seed	Sprout	Flower	Stem	Pollen	Fruit	Seed

In the human microcosm, they manifest themselves in the major organs and physiological functions. A logical system can be derived of hidden sympathies and connections. For example, a yellow blooming flower, such as the dandelion or the greater celandine, would correspond to Jupiter, and Jupiter would also rule the liver. Red-blooming thistles with their spines would belong to Mars and could be useful for choleric people or those suffering from gall bladder trouble. Willows or meadowsweet growing in damp, swampy places belong to the Moon, and a brew of willow bark or meadowsweet flowers would be good for rheumatism and other cold, wet, lunar ills.

Post-Renaissance Period

Interest in the symbolism of alchemy, astrology, and the doctrine of signatures and sympathies continued unabated for herbalists, who found therein a suitable language to express qualitative aspects. They know very well what they mean when they call pine, mugwort, or hemp “Saturnian,” melon or cabbage “lunar,”

dandelion “jovial,” lady’s mantle “venereal,” or sunflower “solar.” These significations point to vectors beyond the immediate plant, indicating qualities that are not apparent to those who work strictly within the confines of the scientific method.

In the meantime, men of science had moved in a totally different direction. In botany, Carl von Linné (1707–1778), commonly known as Linnaeus, cleared the jungle of confusing names and instituted a neat system of orderly, rational plant nomenclature. It was a natural system of classification based on empirical, morphological properties, such as the number and position of the pistils, stamen, petals, and sepals of the plant. No need for spirits or planets here!

The opening of new continents to world trade, the setting up of plantations, and the scientific expeditions of Cook, Bougainville, and others exploded the neat notions of the Renaissance scholars. The world was becoming increasingly secularized and open to rational exploration. Medicine was no exception. “Modern chemical” medicines became ever more the vogue during the eighteenth and nineteenth centuries. The medical establishment looked down on the country healers, the “meaner persons” who healed with “specificks” and simples. Respectable academic physicians relied on such drugs as mercury and calomel (mercurous chloride) to salivate the disease out of the patient—it also causes teeth to fall out, the liver to malfunction, and the skin to darken. Arsenic, vitriol (sulfuric acid), and antimony (tartar emetic)—each a powerful poison—were standards in the doctor’s brown leather satchel. Along with this chemical battery, expensive imported drugs were used: the noxious cathartic jalap (*Ipomoea purga*), opium (laudanum) to dope the patient, cinchona (Peruvian bark) for “quartan” and “tertian” fevers (malaria), ipecac for “body flux” (dysentery), and senna to help move intestines debilitated through mercury poisoning. (In the eighteenth century, Chinese tea was included in the list as a medicine for general complaints. The leaves of the tea were boiled, the water was poured off, and then the leaves were eaten with salt and butter.)

The medicines preferred by the professionals were to have “heroic” properties; that is, they should have strong purgative,

emetic, or convulsive actions causing violent body reactions. Gentle, nonpoisonous herbs, used by the “Indian doctors,” were considered useless despite evidence to the contrary. Added to the infamous mineral poisons was the practice of bleeding and blistering.²⁵ Many a distinguished patient, who could afford these doctors, was blistered, bled, and poisoned to death. George Washington died when half his blood was drained out to cure a cold.

During cholera, typhoid, or yellow fever epidemics, it became evident that this type of medical care was useless when professional doctors lost most of their patients whereas herbalists, native healers, and old hags saved most of theirs. The consequence was not a reform of the medical practice but the attempt to eliminate any rival system of medicine by any method possible.

In the American South, many Black slaves earned a reputation for possessing the gift of healing. Some slaves became celebrities, such as one named Caesar, who was given his freedom and a pension for his success at healing cases of poisoning, and another named Sampson, who became famous for his cure of snake bites, utilizing the “Sampson snakeroot” (*Gentiana villosa*). It is possible that some of the techniques and remedies came with the slaves from Africa along with the eating of clay by pregnant women, lullabies, voodoo magic, and speech rhythms. In 1749, however, the General Assembly of South Carolina in Charleston prohibited slaves from doctoring under penalty of death.²⁶

Housewives, as well as midwives, were always rivals to the graduates of medical schools. Home recipes in cooking as well as curing were passed on to daughters as part of their training for the duties of womanhood. Cooking food for the healthy and different foods for the sick, brewing refreshing teas of soothing herbs, and adding a pinch of that “secret ingredient” (love) kept people from being lanced and blistered. Some women became outstanding in these respects, their therapeutic reputations spreading beyond their families. One such healer was Margaret Jones of Massachusetts, who was so successful with her roots and leaves that the Puritan elders decided to hang her as a witch in 1684. Anyone who is so successful must be in league with the devil.

On the frontier and in the backwoods of early America there was always a shortage of professional doctors. It is no wonder that unorthodox methods flourished. Pastors and parsons eagerly dabbled in medicine at the time, but they generally relied on the bleeding and administration of poisons that respectable book doctors were so fond of. In this frontier situation, an illiterate dirt farmer, Sam Thomson (1769–1843), developed a home remedy system by which every family could treat themselves with simple native herbs. While herding cattle or geese on his father's New Hampshire farmstead, Thomson amused himself by tasting different plants and watching his body's reaction to them. One day, he tried the pretty, blue-flowering lobelia (*Lobelia inflata*), which made him vomit. In jest, he gave it to another farmer, who promptly sweated and vomited but claimed a few hours later that he had never felt so good in his life as after this treatment.

A wortcunning wise woman guided Thomson on. Old widow Benton was always called upon when members of the family were sick. With her herbs and roots, she did better than the more expensive doctors. Thomson started doctoring his own family. Before long, he started helping his neighbors; and when he saved the victims of a yellow-fever epidemic in the town of Alstead in 1805, while in the neighboring town of Walpole people died like flies, his reputation was made. His method was a gentle vegetable purge and steaming the patients in hot vapors while giving them herbal teas to drink. Lobelia was his favorite remedy. For the rest of the century Thomsonianism was a major medical movement in the United States. Shaker communities had a thriving business growing and supplying herbs for Thomsonian practitioners. At the same time, another herbalist school, the Botanic-Eclectics, who insisted on using mainly indigenous American herbs, became popular. In the late nineteenth century, the homeopaths of Samuel Hahnemann opened successful clinics and practices based on gentle, nonpoisonous, mainly herbal remedies.

As is to be expected, the medical profession fought the Thomsonians, Botanic-Eclectics, homeopaths, and other “quacksalvers” tooth and nail with all the force that their status,

money, and influence could muster. Eventually, the American Medical Association (AMA), founded in 1842, succeeded in having legislation passed that closed most of the nonorthodox schools and discredited their practitioners. In concert with the pharmaceutical corporations, they have now succeeded in monopolizing the art and science of healing.

In the course of the nineteenth century, the organic, qualitative nature of herbalism seemed increasingly old-fashioned and outmoded, even primitive. Mechanistic philosophy and the trend toward specialization carried the day. “Life forces” and “etheric forces” became so much superstition, and “planetary gods” experienced a twilight when Friedrich Sertürner isolated the alkaloid morphine from the opium poppy in 1806. Soon, all kinds of other “active chemical ingredients” were isolated: quinine out of Peruvian bark (1820), strychnine from the poison nut (1818), salicin from the meadowsweet plant (1828), and so on. In 1828, Wolfgang Wöhler synthesized urea—no kidney was needed! This blow sent the vitalists, who talked about the special, mystical property of life (and the substances produced by living organisms), reeling. All life can be reduced to chemistry! This was the march of science, the retreat of superstition! As scientists penetrated into the tissues of the plant, the cells became the primary reality of life. Analytical chemistry probed into the contents of these cells, and chemical analysis became more interesting than the whole plant, as such.

Early in the century, the poet-scientist Johann Wolfgang von Goethe rebelled at the thought of such reductionism. Countering the *Zeitgeist*, he tried to save organic holism by formulating the idea of the *Urpflanze*, the primal or archetypal plant, as a being metamorphosing in time and space. The scientific community was not especially interested. With the isolation of alkaloids and the synthesis of organic compounds, the prospect of synthetically creating all sorts of substances presented itself. This, indeed, would happen. The laboratory replaced the physic garden. “Active ingredients” would soon be synthesized from coal tar and petroleum. Salicin, found in willow bark and used for relief from fevers and rheumatic pains, was synthesized in 1852 to be improved

by the Bayer company in the form of acetylsalicylic acid in 1899. Soon scientists invented synthetic alkaloids, glycosides, and other substances previously not even existing in nature. By adding a molecule here and subtracting another there, fantastic new compounds were derived that could be tested on rats, dogs, and rhesus monkeys before they could be tried on convicts, the handicapped, or minorities—and later to be packaged attractively, advertised aggressively, and made available for mass consumption.

Soon there were a number of vaccinations along with a number of “wonder drugs” such as antibacterial sulfa drugs, penicillin, and thousands of others. By the 1950s it was the common belief that science would soon find a clean, neat pill for every ill. Old-fashioned, intuitive doctoring went out to make room for the medical specialist, who with the aid of complicated technology completes a diagnosis of the disease and then looks in the manual that the pharmaceutical company provides for the corresponding wonder drug. It was commonly believed that the new pharmaceuticals were responsible for decreasing or eliminating epidemic diseases and for increasing life spans by a decade. A closer look at the statistics, however, reveals that the epidemics and malignant chronic ills were already on the decline before the advent of these drugs. It was better sanitation and especially better nutrition that accounted for improvements in health and longevity.²⁷

Trouble with Modern Pharmaceuticals

Synthetic drugs—and if they fail, surgery—constitute modern medicine. It is a big business! Hundreds of billions of dollars are spent on health care in the United States every year. We should all be as healthy as proverbial horses! Yet people are not that healthy, and despite the efficient, antiseptic aura of modern medicine, a lot of people are breaking the spell: they are trying herbs again and picking up outmoded medical theories, even astrology. Why is this so? Synthetic drugs have proliferated to an extreme: thousands of

new ones are thrown onto the market every year—and nearly as many are taken off the market because of deleterious side effects, which reveal themselves later. There is the problem of synthetics working too one-sidedly or too strongly and not containing the milder, buffered action of the “impure” herbs. There is the problem of synergisms: two comparatively harmless compounds working together in the system to create violent poisons. There is the problem of iatrogenic (doctor-induced) disease, due to drug toxicity. These are problems of inner ecology, of messing with the fine balances of body chemistry, the endlessly complicated network of hormones, enzymes, blood, and tissue constituents. There is an analogy in the external ecology of the natural environment. Here, too, the thinking that created herbicides, insecticides, and a battery of agro-chemicals has wreaked havoc with the soil, the natural cycles of vegetation, and the habits of the fauna, along with causing pollution and acid rain. Here, too, natural harmonies have been disturbed, adverse synergisms created, and our very survival threatened. “Perhaps,” whispers a little voice somewhere in a dark corner, “the old farmers, gardeners, herbalists, and wise women were not so wrong with their intuitive approach, with their planets and nature spirits?”

Besides, modern health care is costly—and lucrative for those who produce the chemicals. What would happen if the masses turned back to the simples that grow in fields and on the roadside? Such a movement would threaten a large sector of the economy with decline. But then, the corporations need not be alarmed: it is precisely the high cost that works as a magical factor in the effectiveness of medicaments. High cost reflects the high capacity of the medical authority called upon to treat the case. Just because herbs are cheap and simple, they must not be any good!

For the countries of the so-called Third World, which are so poor they can barely even pay the interest on their debts to the world banks, it becomes increasingly difficult to import medical technology and pharmaceuticals. The World Health Organization (WHO) and UNICEF came to the conclusion in 1974 that if there were to be adequate health care for everybody by the turn of the

millennia, traditional methods must be taken into consideration. In no way can Western medicine be applied worldwide. The effort should be made to include the skills of traditional healers.

Anthropological studies support this in showing that the rate of successful healing by shamans does not differ significantly from that of Western medicine.²⁸ In 1978 the Thirty-First World Health Assembly urged the use of “whole-plant drugs,” and the WHO is currently combing traditional societies for native antifertility drugs and native cancer cures. In 2001 the WHO issued a report observing that “traditional and complementary/alternative medicine has demonstrated efficacy in areas such as mental health, disease prevention, treatment of noncommunicable diseases, and improvement in the quality of life for persons living with chronic diseases as well as for the aging population.”²⁹ This work is being carried out against the background of rapid destruction of native traditions, especially in the Amazon region, as well as the destruction of the natural environments where most of the promising plant species have their niches.

The Hazard of Herbs

In the wake of the sixties and seventies, when flower children and an alternative culture shook the foundation of Western society with their demand for organic agriculture, natural birth, and the right to expand consciousness, many people were starting to look into natural herbal medicine. The pharmaceutical corporations and parts of the medical establishment were alarmed. The next trip to the Riviera or the next purchase of a Mercedes was at stake. As a consequence, a mounting campaign has started warning about the hazards of herbs. The charisma and financial clout of these white-robed priests and pill merchants guaranteed access to the mass media. One example of many that could be cited ought to suffice—an article titled “Hazards of Herbal Teas” in the popular family magazine *Living Today* (February 1984):

Are some herbs and plants now offered in health food stores potentially hazardous? Yes, reports Dr. Walter H. Lewis of Washington University, St. Louis. Chamomile, a popular herbal tea made from flower heads, can produce severe shock for people allergic to ragweed pollen, he points out. Senna leaves and flower buds, another source of herbal teas, can cause severe diarrhea and deaths have been reported from senna preparations. Says Dr. Lewis: "Unfortunately, the American public is unaware of the potential dangers of certain of these products ... many newly available plant products have not been tested: their effects on the body are not fully understood; or their effects simply are unknown to the majority of casual purchasers." Dr. Lewis recommends the establishment of a reporting system by which physicians could notify the Government's Centers for Disease Control, Atlanta, of any illnesses seemingly related to herbs: this could help alert the public to those that are dangerous, while safe ones may be sold for "the enjoyment of millions."

First of all, it should be stated that millions of people who had spells of hay fever have safely drunk chamomile and that it is one of the gentlest, most effective medical plants known. Senna is taken as a laxative, and it is one of the best available—of course overdosing will cause diarrhea: it is supposed to! When Dr. Lewis dares to venture the opinion that herbs have not been tested, he has it backward. Many of the synthetic chemicals have not been tested, or tested efficiently—one need only remember the thalidomide tragedy. The sedative was tested in animal experiments, but when taken by pregnant mothers, it created children without arms and other debilities. Likewise, the hormone DES causes vaginal cancer and genital defects in children whose mothers took the drug during pregnancy. By contrast, people of all cultures have used herbs for hundreds of thousands of years. We really know a lot more about herbs. If modern Americans do not know anything about herbs and misuse them, it is the fault of the educational system, where children are penned up in sterile buildings with books and microscopes instead of learning the plants as they grow in the fields and forests. The suggested reporting system would serve primarily as a means for the pharmaceutical establishment to amass discriminating evidence against its competitors. It should be noted,

by the way, that the article's real author is the American Medical Association, as indicated in the reference given at the bottom of the article (*AMA Journal*, vol. 240, p.109)—thus one knows from which direction the wind is blowing.

The attempt to prevent the popular use of herbal medicine has continued to this day. It is illegal to sell herbs and herbal preparations as medical agents; they have to be sold as “dietary additives.” It is illegal to indicate their medical use or to give proper dosage directions. The consumer is scared away from using them with warnings about potential carcinogenic effects, liver toxicity, and more recently their interference with the effects of prescription medicines. All this ignores the thousands of years of successful experience people in all cultures have had with medical herbs; it also ignores the more than 100,000 estimated annual deaths alone in the United States due to unforeseen synergistic effects of properly prescribed medicines.³⁰ The newest attempt to discredit traditional herbalism focuses on adverse herb-drug interactions (i.e., the interaction of herbs with standard pharmaceutical products). A notorious example is Saint-John's-wort (*Hypericum perforatum*), known in the Middle Ages as *fuga daemonum* or “devil's flight,” because it reputedly chases all evil spirits away. The traditionally highly esteemed healing herb does indeed increase the liver's production of enzymes, which speed the clearance of impurities and drugs such as blood thinners, drugs that suppress the rejection of organ transplants, and even oral birth control pills, the latter of which resulted in the birth of thousands of unplanned, so-called Saint-John's-wort babies.³¹ It seems that Saint-John's-wort does indeed detoxify and drive whatever is unnatural out of the body. Despite this, the bright yellow flowering plant remains one of the best antidepressants that nature has to offer. It also exhibits a pronounced antiviral activity against herpes, hepatitis, and HIV.³²



CHAPTER TWO

Medical Models





The medical profession as it exists today consists not so much of healers as of priests of a powerful “church” who sanction our way of life from cradle to grave.¹ They are a white-robed clergy who have been initiated after long and difficult rituals at medical colleges where the finesse of their worldview has been instilled into them and where they learned a Greco-Latin litany that ordinary mortals do not understand. They are present at all major life crises and transition periods such as childbirth, marriage, illness, and death, casting spells, pronouncing taboos, and administering sacred substances. At birth, they have replaced the midwife, turning the mother into a patient and administering silver nitrate into the eyes of the infant as the first baptism. At marriage, the new couple has to have their blood examined. Death often occurs in one of their tiled temples with the patient hooked to a sacred apparatus, in isolation from family and friends. Compensation for their services is exorbitant. Their pronouncements are not to be questioned. They seem to have a special relation to the truth. Apparently, they do work miracles and have saved a lot of lives. Their methods are contrasted to the filth and superstition of the primitive shamans. Herbalism belongs to the latter: it is considered dangerous. Herbalists have to be careful not to be hauled before a judge for illegally practicing medicine.

Upon closer examination, however, the claims of this medical priesthood do not hold. Medical sociologists have shown that people who dutifully have check-ups every six months do not have longer life expectancies than those who do not. The United Nation’s World Health Organization (WHO) has shown that native systems of medicine are about equally effective against incurring illnesses—in some cases, a little more and in other cases a little less efficient. The strong points of Western medicine are antibiotics and surgery. Antibiotics, however, are losing the effectiveness they had in the 1950s as bacteriological strains are becoming increasingly resistant due to being irresponsibly prescribed and used.²

Current medical ideology is based on the empirical study of the disease whereby symptoms and stages of diseases are thoroughly analyzed by a battery of serological tests, microscopic analysis, tissue cultures, exploratory surgery, and the like. The diseased organ or organ complex is then submitted to an assault of chemicals. If bacteria are present, the attempt is made to poison them. The patient is also poisoned in the process, but usually the bacteria die first, and the patient has a chance to recover. Metabolism, hormone balance, and so on are to be influenced by other chemicals. If that does not work, as a final step the diseased organ is cut out.

The basic intellectual model for this kind of medicine is a mechanistic, materialistic one. The body is treated like a malfunctioning machine, much like an old car. If it burns too much oil, put in some STP; if the temperature plummets, put in some antifreeze. Service it periodically. When parts wear out, replace them if possible. Ever since René Descartes formulated the idea that the body is a machine made of flesh and run by the intellect (spirit), this idea, in so many variations, has become dominant.

The physiological processes are guided and controlled by hormones and glandular secretions (Descartes posited the pineal gland), providing biochemical guidance of the carnal mechanism. Thus, if the pancreas malfunctions, insulin might be injected hypodermically to lower the level of blood sugar. If the body shows signs of fatigue, caffeine might be given to stimulate the cortex. Gastritis, due to hyperacidity of the stomach, can be treated with some alkali. In this way, a whole gamut of diverse chemical substances can hinder or activate body processes. Such insights, resulting from two centuries of biochemical research, add up to our current medical anthropology.

For a long time, as far as the medical scientists were concerned, herbalism and traditional healing methods were not even worth talking about. Following the First World War, partially due to a shortage of medicaments, however, herbs were looked at anew.³ After all, they do contain some “active ingredients” that could be isolated. Old herbals were gone through, and traditional healing herbs were subjected to chemical analysis. Some herbs did not

reveal an active principle and were discarded as “old wives’ tales.” Others yielded some alkaloid or glycoside, which proved to be effective on laboratory animals. The formula thus unraveled could be used to synthesize the drug out of coal tar, given a jazzy code name, and marketed. In some cases, it might be easier to extract and refine the active ingredient than to synthesize it.

Some of the drugs thus found were ma huang (*Ephedra sinica*), a little leafless shrub from Asia that, when brewed into a tea, stimulates the central nervous system and calms asthma. An American variety of the plant is known as Mormon tea. In the 1930s, Eli Lilly Company started marketing ephedrine. Snakeroot (*Rauwolfia serpentina*) has long been used in India to lower blood pressure and calm excitement. Gandhi liked taking a nightcap of snakeroot; indeed, the drug seems to be the pharmacological basis of his nonviolence movement. In 1947 Swiss biochemists, working for Ciba Corporation, isolated the alkaloid reserpine, which was soon used extensively in mental clinics for schizophrenics and, on the other hand, for cardiac patients. A tea of the dried root of the heliotrope (*Valeriana officinalis*) has been given since ancient times to soothe and calm shaken nerves. It gives the feeling of lying on a mossy forest floor in midsummer—what sounds like the breeze caressing the treetops is, in reality, the streaming of one’s blood that one hears in this relaxed state. The active ingredient has been found, analyzed, synthesized, and marketed as one of the post potent sedatives: Valium. The lobelia, a favorite emetic of the American Indian medicine man and of the Thomsonians, has been investigated. The derivative lobeline is used today to revive breathing at operations, for anesthesia, and in asthma remedies. Since pharaonic times, licorice, derived from sweet wood (*Glycyrrhiza glabra*), has helped heal stomach ulcers and calm the bronchi. In 1940 a Dutch physician hit upon the idea of using slowly dissolving gelatinous capsules of licorice powder to cure difficult-to-reach duodenal ulcers.

Cancer is alleviated and sometimes arrested by preparations of mistletoe, recommended by Rudolf Steiner and first mentioned by Pliny in Roman times. Mistletoe extract, under the name of Iscador,

is now conventional in cancer therapy in Europe. Hillbilly “sangers” (derived from “ginsangers,” i.e., those who looked for ginseng roots) and Indians have used the juice of pokeweed and the mayapple root for the same dreaded disease—something the billion-dollar cancer industry is currently looking into. Under the auspices of the WHO’s Fertility Control Project (1975), the Mexican yam (*Dioscorea*) was found to contain the raw material for oral contraceptives.

In the folklore of Burma, scientists happened upon a story of a king who became infected with leprosy. He retired to the forest, lived in the hollow of a chaulmoogra tree, ate its leaves, was cured, and then was able to return to his throne. Early in this century, Dr. Joseph F. Rock picked up the hint and developed a useful leprosy treatment with the oils of the nut of the tree. Richie Chandler tells of “auwld hags” in Scotland who used old, moldy bread for healing festering wounds long before Alexander Fleming noticed the antibiotic activity of the penicillin mold.⁴ In 1775 Dr. William Withering abandoned a patient with dropsy. He thought there was nothing he could do for the swelling of the arms, legs, and ankles. Weeks later, he noticed that the patient was up and around and was told that the “wise woman” of Shropshire had given him one of her potions. Withering analyzed the potion, which contained some twenty herbs, and found foxglove (*Digitalis purpurea*) to be the single most effective herb. Foxglove, otherwise mentioned in old herbals, became the standard remedy for dropsy. In 1869 the active principle digitoxin was isolated. Withering, who thought that dropsy was a disease of its own, did not know that foxglove works on the heart.⁵ Since then, similar plants derived from wortcunners’ lore have been found to be heart-active, such as lily of the valley (*Convallaria majalis*), Adonis rose (*Adonis vernalis*), and oleander (*Nerum oleander*).

To this day, botanists and ethnologists are financed by pharmaceutical companies to search the far corners of the earth and pry into the affairs of witch doctors and medicine men in hopes of finding other plants that hold the promise of a marketable medical miracle. Ethnobotanist Richard Evans Schultes, director of the Botanical Museum at Harvard, has gathered, pressed, and dried

some 24,000 specimens of plants gathered from the Amazon basin with an eye on their chemical and clinical analysis.⁶

With the foregoing in mind, it is not really fair for the medical profession to look askance at the use of herbs. After all, about 80 percent of the refined or synthetic drugs sold on the market derive from or imitate herbal sources. In their rebuke of herbal medicine, the medical professionals contradict each other. Some claim that the herbal cures do not work, consisting of make-believe and old wives' tales that, at best, have a placebo effect. Others claim that herbal cures are downright dangerous.

Herbs do have active ingredients! So where is the problem? Scientists are quick to point out that the refined or synthesized substances are much purer; the doses can be adjusted exactly. They are simpler, less messy, and safer to administer. Critics of herbs point out that the alkaloid or glucosidal concentrations vary in the plants according to soil conditions, time of day, season, and the effects of the plants that grow nearby. For example, poppies can have four times the morphine content in the morning than in the evening. Similar variations are recorded for the atropine content of nightshades. In some plants, the active molecular principle is present only at a certain stage of development: a useful, safe vermifuge is present only in the sprouting stage of the pumpkin seed. A white-blood-cell destroyer, used in combating leukemia, is present in the periwinkle (*Vinca rosea*) only at a certain stage of development. Essential oils of mints are increased when nettle grows in the mint patch. In other words, it is claimed, these subtle factors elude the control of the herb gatherers so that their dosages are hit and miss.

The herbalists counter that charge with the question, "What is a standard dose, anyway?" The constitution of individuals differs greatly, as does the severity of the disease. There can be no standard dose because each human being is a unique constellation of body/soul and karmic factors. As Paracelsus suggested, medicaments need be individually concocted. Secondly, the herbalists point out that by picking at certain seasons, times of day, and phases of the moon, they demonstrate awareness of qualitative

differences in the plants at different times. Thirdly, it could be pointed out that nowhere in nature are such “pure” or highly refined substances to be found as in the modern pharmaceuticals. In the body, these refined substances often work like a gunshot, where only a small tap is needed; or, strangely enough, they might not work at all; or they might have side effects that the dried whole-plant medicines do not have. Over the eons, we have coevolved with the plant world. Using plants as food and medicine—the two concepts overlapping—our biochemistry is attuned to naturally grown vegetation. Natural buffers and plants work for us by using the whole plant.⁷

To the herbalists, a gently working plant, given as a tea for a period of several weeks, allowing the body to heal itself by supporting the natural healing process of the organism itself, is preferred to the chemical hammers. The modern physician might counter that that might have been all right in the days of oxcarts, but in our fast-moving technological age, people call for instant relief, for something that will wipe out the symptoms so that hours of work, study, and fun will not be missed. The old-fashioned “cure” of lying in bed for three days with the grippe, for example, does not fit into these times of fast food, instant transportation, and instant information.⁸

A modern physician might also point out that the old herbal cures are behind the times, that the dynamics of disease and health care are changing and fluctuating. Certain old diseases such as scurvy and rickets have disappeared. Others have appeared relatively recently: in 1918, a particularly virulent grippe, the Asian flu, swept the continents, killing some twenty million people. People’s immune systems and the genetic structures of the viruses change constantly. Deadly cholera, which had been around a long time, suddenly became virulent at the beginning of the nineteenth century in Bengal and spread across the world. Syphilis, judging from archaeological finds, was around for millennia but took on an especially virulent form in the early sixteenth century, apparently brought to Europe by the sailors with Christopher Columbus. In recent times, AIDS, spreading within the homosexual community of

San Francisco since 1979, seems to be a totally new disease. Rumor has it that it escaped from a biological warfare laboratory. What are now simple childhood diseases, such as smallpox and measles, were once dreaded plagues with which our immune system has learned to cope. Relatively new are gerontological complaints, cancer and heart disease, brought about by new living habits, diet, stress, and environmental pollution. Our organisms have to adjust to inputs that have never existed before, such as TV, electric lights, genetically modified food grown with agro-chemicals, exhaust fumes, motor noises, exotic foods (before this century, 90 percent of the food consumed was grown within a ten-mile radius of the local community), high speed travel, and so on. But why should herbal cures, coupled with a sensible, “natural” lifestyle be any less effective in the face of such developments?

Another problem with the old herbals and the wortcunning tradition that even the sympathetic physician might encounter is that the associated symbolism and lore do not seem to make sense. How does one make heads or tails out of pictures of planetary gods associated with plants: Saturn, the old man with the scythe; the jolly king Jupiter; Mars, bristling with arms; the Sun as a radiant hero; Venus, the beautiful woman; and the Moon as a pudgy infant? How does one cope with leprechauns, fairies, and gnomes, with Ganesha and talking *nagas*? One is dealing with a radically different worldview—one based on a rural lifestyle that permitted leisure to gather and administer the herbs, and that had time to dwell on the problem, which allowed an intuitive grasp of the cure. It involved an inward process of the soul that dealt with and expressed itself in images and pictures foreign to us now. With our decades of formal schooling, our training in discursive thinking, our permanent immersion in the mass media, and our hectic use of time, we cannot appreciate these inner pictures—these colorful metaphors of reality. They cannot take on a meaningful life in our minds. Modern astronomy has created havoc with the images of astrology; psychology has emasculated the gods; and chemistry has given the coup de grâce to the dragons and tinctures of alchemy. Synchronous attempts to combine the two viewpoints will always seem cultist,

crackpot, or apologetic to the modern scientist and not be taken seriously.

Thus, ideologically, traditional herbalists have been overpowered. Hicks and old-timers, with their folksy remedies, are seen as quaint and are given sympathetic smiles, but one would not trust one's life with them.

Slick, modern herbalists, breaking into a profitable market—created by the high cost and risks of modern pharmaceuticals—are only too glad to wash their hands of their ideological past. Wizen folk, planets, and states of trance are washed down the drain. These new herbalists have accepted the modern, scientific worldview as the only valid approach to reality and attempt to give logical, rational arguments in terms of “active ingredients,” buffers, “pharmacodynamics,” side effects, or biochemical formulas for their attractively packaged products.

But this is not our point of view here! The paradigm of “scientific” medicine is only one of many ways of dealing with illness. There are other ways of healing, based on different worldviews and different medical anthropologies. The guild of white coats, jealously intent on its exclusive hold on people's minds and bodies, does its best to fight off any other approach: thou shalt have no other paradigms before me! Other viewpoints must be ignored; if that does not work, they must be ridiculed; and if they still continue to mislead the believers, the law must deal them with. Yet most of these rivals—Chinese acupuncture, Indian Ayurveda, shamanism, and even Samuel Hahnemann's homeopathy—are ancient and successful ways of dealing with the problems of health and disease. All of them, effective as they are, cannot be explained by the premises and tenets of modern, scientific methodology—their logic is different; their symbols have unusual referents; and their basic assumptions differ from those of Western medicine. All of these systems rely heavily on herbs.

We shall look briefly at these nonorthodox systems and then proceed to show that traditional wortcunning is just such a system. It is sophisticated and effective in the hands of good practitioners, although its methodology and symbols are not understood using the

paradigm of modern, clinical, medical science. It need not justify itself by the canon of the modern medical worldview; it is a system unto itself. The proof lies in the pudding: it heals!

Chinese Medicine

Acupuncture, collecting herbs according to their signatures, and other aspects of Chinese medicine go back to at least 3000 BC, when the mythical emperor Shennong, founder of agriculture, herbology, and medicine, wrote a treatise on herbal therapy. This ancient system, elaborated in the course of time with pulse taking, elaborate fever analysis, Taoist alchemy, massage, and other techniques, appeared to Christian missionaries, doctors, and scholars to be a hopeless gobbledygook of superstition. Even today, a look into the typical Chinese apothecary, abounding with dried shark fins, toads, dragonflies, pulverized sea horses, unicorn horns, and flasks of boys' urine, along with every dried weed conceivable, seems to justify this view. Street vendors selling snake bouillon and dog soup (with the entire dog—head, tail, claws, and all—merrily boiling in a cauldron) as health tonics do nothing to diminish this view. Even educated Chinese, who had studied at Western universities prior to the revolution, tended to agree. The government of Chiang Kai-shek tried to introduce Western medicine. The masses of Chinese peasants still preferred their acupuncture, moxibustion (burning herbs on the skin at the end of an acupuncture needle), baths, and Tai Chi exercises. Mao Tse-tung realized that Western medicine was too costly and its premises too foreign to the peasants. Despite its obviously mystical methodology, based on such non-Marxist doctrines of the “five elements,” “dragons of the air and water,” and “spirits of the organs,” traditional Chinese medicine was officially furthered—because it works.

After the ping-pong diplomacy of the Nixon administration, the doors to China were cautiously opened. Reporters were allowed to enter the country. James Reston, of the *New York Times*, came back

with documented reports of major surgery undertaken without anesthesia. He witnessed open-heart surgery, the removal of one of the lungs, and other difficult operations performed with the help of two or three acupuncture needles placed in the wrists of the patients. The fewer needles used, the better, he was told. The patients were fully conscious and talking during the ordeal. Some even asked for food and were given slices of oranges. Reston himself, coming down with appendicitis, let himself be operated on by the acupuncture method with great success. To the officials of the American Medical Association (AMA), which up until then had successfully ignored Chinese medicine, this seemed like sorcery. A top-brass commission was sent to investigate, only to be baffled and forced to verify Reston's report. Subsequent attempts to bring this medicine into line with the current scientific medical ideology have not been successful.

What are the basic assumptions of the Chinese medical system?⁹ A force, Chi, pervades the universe, consisting of the harmonious flow of yin and yang energies. The image of yin and yang derives originally from the pictures of a meandering valley: one side being sunny, bright, dry, and hot—and, by extension, masculine and active; the other side being shady, dark, cool, and moist—and, by extension, feminine and passive. The two principles are in dynamic interaction. Trouble (disorder) arises in nature or in an organism when yin and yang are not balanced.

Out of the steady interplay of yin and yang, the five elements, or five functions (earth, wood, fire, water, and metal), out of which the visible world is made, have evolved. In human beings, Chi flows in invisible channels, referred to as meridians. Health is maintained by facilitating the smooth flow of these energies in one's being. I am deliberately writing "one's being" instead of "one's body" because the dichotomy of body versus mind, or physical versus spiritual, does not exist; they are not separate entities. A Ch'an (Zen Buddhist) master might give this riddle to his monks: "I will move my hand. Now that it has moved, what is it that has moved—my hand or my mind?"

The harmonious flow of energies is maintained by virtuous living, even-mindedness, right diet, baths, breathing (*Chi chung*), and the exercises of Tai Chi. The sight of young and old men and women twisting and gyrating in the early hours of the morning in the parks and streets of China reminds the Western tourist of a strange mixture of ballet, calisthenics, and slow-motion break dance. These movements are not to build muscles or remove excess fat; they are the harmonious movement of energies, accompanied by specific breathing patterns and meditations, movements that imitate the tiger, bear, stag, monkey, and crane.¹⁰ If this does not maintain health, an acupuncturist can (literally) pinpoint the source of imbalance along the meridians of the body and restore the smooth flow with herbs and needles.



The yin/yang symbol

([illustration credit 6](#))

Preceding any treatment, the doctor feels the pulse. Twelve pulses can be felt—one for each major organ. Up to twenty-seven qualities per pulse can be read, which hint at the nature of the illness, the severity, and the treatment needed. The Chinese claim that the pulses are more accurate in diagnosis than Western technical equipment and that it is possible to detect illnesses before the symptoms start. Western cardiac experts deny that any more than one pulse exists and claim that only a handful of diagnostic

characteristics can be read from it. But the difficulty does not stop here. Western scholars have attempted to correlate the meridians with nerve strands, lymph and blood vessels, and so on—all to no avail. They cannot be correlated to any empirically visible referents. Are we dealing with a mystical physiology?

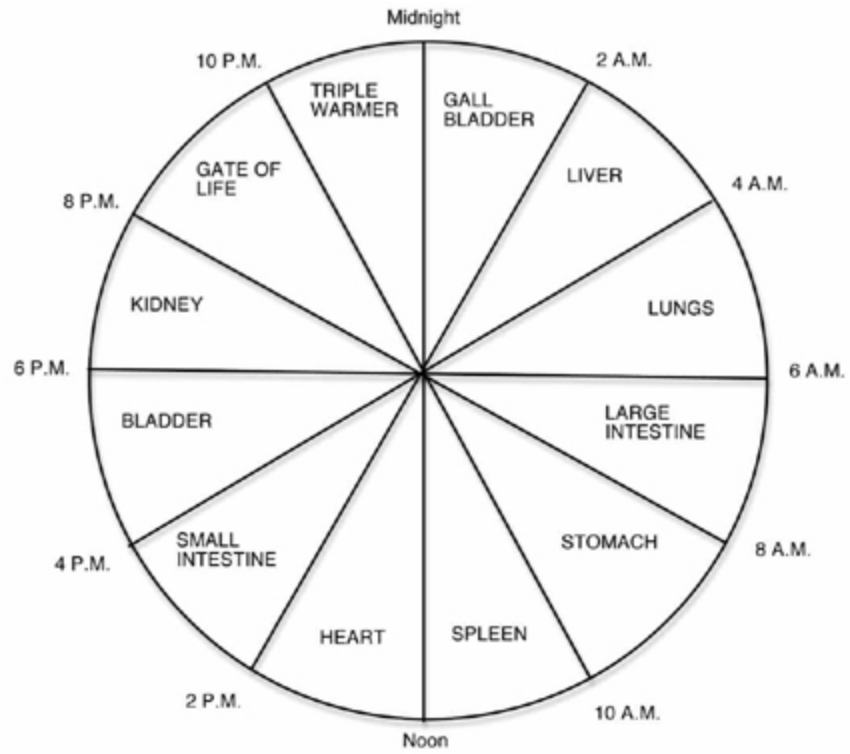
Further, the Chinese paradigm assigns five yin organs and five yang organs to the five elements. These in turn are correlated to the five seasons, five tastes, five planets, five colors, and so on in a manner that reminds us of the Renaissance schemes with their planets and cross-references:

1. Elements	Wood	Fire	Metal	Water	Earth
2. Yin Organs	Liver	Heart	Lungs	Kidneys	Spleen
3. Yang Organs	Gall bladder	Small intestines	Large intestines	Bladder	Stomach
4. Emotions	Anger	Joy	Sorrow	Fear	Compassion
5. Fluids	Tears	Sweat	Phlegm	Spittle	---
6. Tissues	Ligaments	Arteries	Skin, hair	Bones	Muscles
7. Orifices	Eyes	Ears	Mouth	Genitals	Nose
8. Flavors	Sour	Bitter	Tart	Salty	Sweet
9. Climate	Windy	Hot	Dry	Cold	Moist
10. Colors	Green	Red	White	Black	Yellow
11. Planets	Jupiter	Mars	Venus	Mercury	Saturn
12. Behavior	Mildness	Instigation	Enjoyment, Judgment	Retreat	Contemplation
13. Time	Morning	Noon	Evening	Night	---
14. Seasons	Blossoming	Ripening	Harvesting	Storing	Preserving
15. Directions	East	South	West	North	Center
16. Rulers	Green dragon	Red bird	White tiger	Black turtle	---

Correspondences

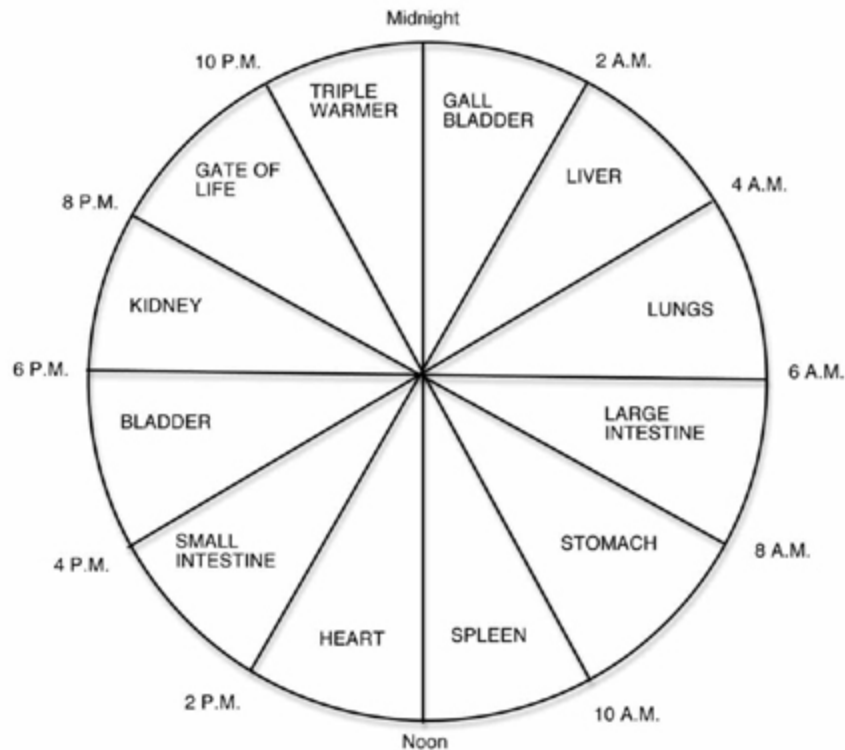
Yin organs are “dark, inside” organs such as the liver (the seat of the soul and storer of blood), the spleen (center of thought), lungs (seat of energy), heart (seat of the fiery spirit), and kidneys (seat of the will). Yang organs are on the contrary “hollow” and more “outside.” They are the gall bladder, large and small intestine, stomach, and bladder. These ten organs are joined by two others, which are just as vital to acupuncture but lack any empirical referent whatsoever: the “Triple Warmer” and the circulation-sex organ, the “Gate of Life.” An equally obscure (as far as Western medicine is concerned) diurnal biological rhythm of high and low activity provides the doctor with the right time at which to undertake a treatment.

The second illustration shows the dynamic effect the organs have on each other. Creative (yang, active, tonic) and destructive (yin, sedative, relaxing) relations are indicated by arrows. The underlying notion is that everything is connected and has an influence on everything else. Winter leads to spring, spring to summer, and so on. Wood makes fire (e.g., rubbing sticks together), fire creates earth (ashes), earth creates metal (ores are born in the soil), metal creates water (smelting), and water makes wood (e.g., when the trees are growing). In the same way, kidneys will “create” the liver; the liver “creates” the heart; the heart “creates” the spleen; and the spleen activates the lungs.



Biorhythm of organs; time of treatment

([illustration credit 7](#))



Interrelationships of yin and yang organs and the five elements

([illustration credit 8](#))

From such a premise, the practical application follows logically: just as winter has its source in the fall, so kidney trouble (winter) has its source in the lungs (fall). The acupuncturist will treat the lungs in order to help the kidneys! No wonder the minds of the distinguished visitors from the AMA boggled at this point. Even the goal of Chinese medicine is not primarily to bring the patient back to health for his own sake and happiness but so that the whole world may function properly, that universal harmony may be restored.

An acupuncturist must undergo a long and formidable training. Life-sized wax-covered dolls are used to train the student to find the exact locations of meridian points. Some points are in difficult locations deep inside the body, next to major organs, nerves, or arteries. If the acupuncturist were incompetent, he or she could do great damage. The treatment is followed by prescriptions of herbs that are mixed and administered to suit the individual patient. The

“queen of medical herbs” is the *Jen-Shen*, or ginseng root (*Panax ginseng*), a member of the ivy family that grows in shady woodlands. Its humanoid-shaped root indicates to the Chinese that it is a heal-all for the total human being. For a long time pharmacologists have denied any medical value. Japanese researchers have found some thirteen different saponins that are either inert or have contradictory effects on the body, some raising the blood pressure, others lowering the blood pressure. But this apparent contradiction is exactly what excites the Chinese; it indicates both yin (sedative) and yang (tonic) potentials in the plant. The body will take from the ginseng what it needs. There are hundreds of ways in which the plant can be used, and the root parts have been pedantically classified into main root, total root, side roots, root hairs, and root layers, each with its own virtues.¹¹ They are cooked with or without the rind, sugared, steamed, sun-dried, or sulfurized and taken in combination with other herbs as teas, powders, or soups. For example, for the circulation ginseng is taken with honey and cinnamon, for upset stomach with milk vetch (*Astragalus*), as a sedative with bamboo.

Equally important is mugwort (*Artemisia vulgaris*, *A. verlotiorum*, *A. argyi*), which because of its yang qualities is used allopathically for deep-seated yin diseases. It is burned at the end of an acupuncture needle (a Yang needle that has been twisted into the skin clockwise) or directly on the skin after the acupuncture needle has been withdrawn. The ashes are then rubbed into the wound.¹²

In the *Doctrine of the Seven Recipes*, Chang Chung Ching, a contemporary of Galen, classified the great compendium of medicinal herbs in which the plant world mirrors the relationships within Confucian society. There are emperor herbs (the really powerful, active drugs), minister herbs that aid the emperor, chancellor herbs that work as correctives, and ambassador herbs, which are vehicles for the prescription.¹³

Herbalism has survived in China to this day. Mao was not interested in the theoretical question of why herbs and acupuncture work, only that they work for the betterment of the masses. Practice precedes theory: “If the drug appears to have beneficial effects,

valuable time and resources need not be devoted to elaborate chemical experiments isolating its active principles.”¹⁴ Herb gardens with about 1,500 species have been set up to grow medical herbs and to teach about ten thousand “barefoot doctors” how to identify and grow important medical plants that they use.

Indian Ayurveda

If our positivists are ill at ease determining the rational base of the Chinese system of medicine, they will not fare better with India’s equally ancient Ayurvedic system. As in China, herbs and herbalism are central to the concept of healing. The classical period of the Ayurveda coincides with Homeric Greece. Caraka—said to be an incarnation of Ananta-Sesa, the Cosmic Serpent—was a master herbologist who combed the Himalayas for rare medical plants. He is known as the Hippocrates of India and might have been his contemporary. Susruta, the other sage of the Ayurveda, who lists 760 medical herbs, aphrodisiacs, and poison antidotes in his writings, is a contemporary of Galen of Pergamus. Ayurveda is, however, older than these venerable sages. The Hindus will tell you that it was founded by Brahma himself as part of the creation and that the *rishi* (seer) Rhardavaya compelled Indra, by means of austerities, to bring the Ayurveda from heaven.¹⁵

The Sanskrit root of Ayurveda is *ayur* (life) and *veda* (wisdom, akin to *Edda*, referring to truth seen clairvoyantly). Thus, Ayurveda is the “wisdom of life,” not just a way of treating the sick. The corollary, however, is that all of life is “suffering” and in *dis*-ease (*dukka*). It is not suffering in the sense of a painful illness, but in the sense of the biblical statement about the condition of mankind (Genesis 3:17–19):

Cursed is the ground for thy sake; in sorrow shalt thou eat of it all the days of thy life. Thorns also and thistles shall it bring forth to thee; and thou shalt eat the herb of the field: in the sweat of thy face shalt thou eat bread, till thou return unto the ground.

The cause of dis-ease is the fruit of *karma* (action, extending into innumerable past lives, when the seeds of the present state of being were sown). Immoral or *adharmic* behavior causes sickness and epidemics—not germs! (*Dharma* refers to the proper way of living, thinking, feeling, wanting, and doing.) A further corollary is that disease does not exist apart from the patient and his karma. Man is a karmic, psychosomatic whole—he is in varying degrees in a state of *dukkha*.

With such a broad basis, the treatment is equally broad. Since everything has an effect on everything else, no matter how improbable or subtle, it follows that nothing exists in the realm of thought or experience that cannot be used as medicine! Just bring to mind how a mere thought of a good friend or of a hated foe can influence the rate of breathing, heartbeat, perspiration, body heat, or adrenaline flow. In an astonishing display of pedantic classification, Ayurvedic doctors have worked out a system of forty-two alternative therapeutic approaches, including diet, exercise, herbal and nonherbal drugs, postures, chants, and so on.¹⁶ According to the classification, disease manifests itself in the following manner:

1. Accident (external), to be treated surgically
2. Infection, inflammation (internal), to be treated primarily medically with herbs and drugs
3. States of anger, fear, hate, laziness, and so on, to be treated mainly psychologically with music, conversations, color therapy, ganja, and so on
4. Natural *dis-ease*, such as hunger, birth, old age, natural sleep, and so on, to be treated spiritually with prayers, mantras, scriptures (reading the *Vedas*), *puja* (worship), or *darshan* (exposing oneself to a vision of the truth at a holy place or in the presence of a holy personage)

The treatments are three: drugs, diet, and practices. These three can be applied either allopathically,

- Contrary to the disease
- Contrary to the cause of the disease
- Contrary to both the disease and the cause of the disease

or homeopathically,

- Similar to the disease
- Similar to the cause of the disease
- Similar to both the cause and the disease

As in traditional Chinese medicine, the patients are informed of the why and wherefore of every step of the healing.

This elaborate medical system is attended to by the caste of physicians, who are in charge of a 5,000-year-old tradition. A son born into this caste will have seen patients come to his father from childhood on, will have seen medicines prepared, will have helped look for Ayurvedic herbs, and will have listened to his father, uncles, aunts, and cousins talk about the subject matter. By the time he assumes his social role and follows his dharma as a doctor, he will be highly competent.

In the more rural regions of India most of the sick are treated by Ayurvedic doctors and by shamans (ojhas) and herb women. A few Westernized urbanites might give modern Western medicine preference, sharing with the former British imperialists the disdain for cow-dung pills, mantras, and other native mumbo jumbo. Europeans who have lived a long time in India, however, often tend to prefer Ayurvedic or homeopathic medicine to the Western version. “Western” doctors in India can be downright dangerous: antibiotics are given out like candy, even for viral infections; patients are frequently endangered by overexposure to x-rays; and an unfortunate anthropologist from Vienna contracted a severe case

of infectious hepatitis from an insufficiently sterilized hypodermic needle.

There is a mistaken notion that Ayurveda must be primitive and useless because one sees so many sick, crippled, and undernourished people on the subcontinent. Actually, once they make it through infancy, Indians are generally healthier than are fat, stressed Americans. In the Western world, especially in the States, everything concerning physical function and illness is shamefully hidden away. Lunatics are locked in asylums, the old in the old folks' homes, and the sick in hospitals, and the dead are made to look like wax images of radiant life in funeral parlors. In India, au contraire, nothing is hidden: neither the old, nor the crazies, nor the cripples, nor the dead. The sick are with their families, and when it is hot—as it usually is—they lie on their *charpoys* outside in the streets. The blind and crippled are sent by their families into the streets, where others may practice charity on them, gaining karmic merit in so doing. Funerals are open cremations for everyone to see, to meditate upon the ephemeral nature of the body. All of this will shock the tourist. Arriving at Delhi airport, the outlander will have his first trauma when asking for the bus into the city: the gums of the skinny man giving directions are bleeding. Others are spitting blood. It takes some time to realize that it is not blood but the red saliva caused by the chewing of *pan* (betel nut)—which, by the way, helps prevent intestinal parasites. In the hotel, early in the morning, the sound of deep-chest coughing and spitting—similar to tuberculosis victims—will cause the tourist to shudder anew. It might take a week to realize that these dreadful sounds are due to daily rituals of body hygiene, which include washing from head to toe, brushing the teeth with a *neem*¹⁷ twig, scraping the tongue with a tongue cleaner, and coughing out all phlegm. Devout Hindus might even go so far as to give themselves a bowel-cleansing enema and clean the esophagus by swallowing a narrow strip of cloth and slowly pulling it back out.

These hygienic procedures, along with the chanting of mantras that center the mind and soul, are performed before breakfast after the obligatory bowel movement, in conjunction with the rising sun.

In the view of Ayurveda, diet is of extreme importance. The food is consecrated to the gods, and little offerings are flicked into the cooking flame. In the Bhagavad Gita—the Song of Lord Krishna—three qualities of food are distinguished:

1. *Sattvic* foods are vegetarian and dairy products. These foods make people gentle, kind, and open to spiritual wisdom, helping them progress on their spiritual path. This is the food Mahatma Gandhi advocated. The products of the cow are all sattvic: the cow, the gentle mother of all beings, produces only goodness; its urine, manure, milk, and butter (*ghee*) all have healing qualities, and even the mere presence of a cow in the street produces harmonizing vibrations.
2. *Rajasic* foods are hot, spicy, and nonvegetarian. This is the sort of food the *kshatria*, the warriors and nobles, might eat. It fires up the passion and is for active but not contemplative souls.
3. *Tamasic* foods are old, stale, dead, putrefied foods. They include such abominations as canned foods, fast-food hamburgers and fries, colas, and booze, which cause dullness of the spirit, violence, and darkness.

Yoga, with all of its *asanas* (positions), meditation, and contemplation, is as much part of the Ayurvedic way of life as are daily worship, hygiene, and cooking. Yoga, a Sanskrit word related to our word “yoke,” is the discipline that guides the human being through the stages of life (*ashrama*).

The basic components of Ayurveda give the hard-boiled scientist as much difficulty as the meridians of the Chinese or the planetary gods of the Renaissance philosophers. One such basic component is the teaching of the three humors (*tridoshas* or *dhatu*s): *vata* (wind), *pitta* (bile), and *kapha* (slime, phlegm). Apologetic Indian physicians and Indologists have gone to great lengths to try to align these concepts with modern Western medicine, seeking to explain them in terms of endocrinology or humoral theory. Others have represented these *dhatu*s as the aerial, fiery, and liquid forms of life (etheric)

energy, wherever they manifest themselves in the microcosm or the macrocosm:

The moon pours down the renewal of the sap of life; the sun by its draining rays withdraws this sap from the creatures; the wind moves it to and fro in various directions. Thus, they support the body of the universe. In like fashion, the antagonistic activity of phlegm, bile, and wind supports the macrocosm.¹⁸

In this way, the tridoshas, constantly in a state of dynamic flux, remind us of the three “processes” (*sulfur*, *mercurius*, and *sal*) of Paracelsus, who might have gotten this idea from the “wise Brahmins,” as he calls them in his writings.¹⁹

These humors have been subject to endless speculation and deliberation. “Wind” is said to have its home in the lower abdomen, “bile” in the stomach region, and “phlegm” in the chest and lungs. These humors must be in a state of constant harmony, otherwise sickness will occur. If that happens, plants, foods, and activities that display the same qualities can be administered to restore the harmony. Of the herbs, those that are “windy” (*vatic*) are those that are lean, dry, subnormal in sensitivity, and deficient in fruit and flower; those that are “hot” (*pittaic*) cannot tolerate the heat of the sun and are pale, deficient in branches, and prone to ripen prematurely; whereas “phlegmatic” (*kaphaic*) plants are covered with creepers, fruits, and flowers and have full stems and branches of large girth. It should be obvious to the reader that we are dealing with metaphorical, intuited qualities.

The three humors are said to derive from the five basic elements (bhutas): earth, water, fire, air, and ether. The relationship of the elements to the microcosm and, in turn, to the humors is indicated in the chart.

Elements	Microcosmic Correspondence	Tridosha
Earth	bones	kapha: structure,
Water	body fluids	kapha: phlegm, mucus
Fire	digestive fluids, body heat	pitta: heat
Air	breath, animation	vata: wind
Ether	nerve currents and other networks	vata: activity of the body

As in China, where the dead join the ranks of the sacred ancestors and physicians may not even touch women's bodies, in India there is little actual knowledge of the location of individual organs, nerves, and tissues. Bodies are generally cremated or given to the floods of the Ganges. They certainly are not to be defiled by dissection. Besides, in Indian thought, the bodies are the mere end products of the constant flux of living energies. These energies are important, not their corporeal sediments. The focus of the Ayurvedics thus turns to the "energy body" of the human being, which is conceived of as located along the axis, running from the base of the spine to the top of the head, with seven "energy organs," or *chakras* (rotating wheels). These charkas are as difficult to substantiate by empirical research as are the Chinese meridians.



Chakras

([illustration credit 9](#))

The serpent (*kundalini*) of primal energy (*shakti*) lies coiled together sleeping at the bottom of the spine. The spine has a hollow channel called the *sushumna*. From the left nostril and the right nostril channels of lunar and solar energy spiral down around the *sushumna*, crossing at intervals, much like the Aesculapian serpents twine around the staff of Hermes. Through the use of special postures (*asanas*), fasting, meditation, and various breathing exercises, one can direct the life-breath (*prana*) downward to the coiled serpent, wake it, and cause it to rise up the spine. As it passes each chakra, new levels of illumination and understanding are reached. This is the aim of yoga. To this day, one sees *sadhus* (ascetics) and students sitting by the riverbanks in lotus position, breathing deeply, holding one side or the other of their nostrils shut, directing the breath in this way.

Name of Chakra	Number of Petals	Location	Characteristics	Element
Muladhara	4, crimson	between genitals and anus	dull, rigid consciousness	earth
Swadhishtana	6, vermillion	genitals	sexual consciousness	water
Manipura	10, storm-cloud color	navel	consuming, conquering	fire
Anahata	12, orange, crimson	heart	understanding symbols, philosophy	air
Vishuddha	16, smoky purple	Adam's apple	mystical intuition, hearing the OM	ether
Ajna	2, white	forehead above eyebrows	seeing God	mind
Sahasrara	"thousand"	crown of head	Nirvana	---

According to the Hindus, successful Ayurvedic herbalism is not for the man of ordinary consciousness, but for those whose souls have awakened at least to the *anahata* or *vishuddha* stage. The herbalist must be a yogi, capable of deep meditation. He has to understand and talk with the soul of the plant and not just its gross physical body. For the Hindus, the plants have souls and are subject to transmigration as much as human beings and animals are.²⁰

Buddhist Medicine

Buddhist medicine arose out of the Ayurveda, just as Buddhism arose out of Indian Brahmanism. Wandering monks (bhikkus) were renowned for their knowledge of herbs. One of their favorites were the leaves of the camellia tree, which were infused in hot water and would keep tired monks from nodding to sleep while chanting long mantras. In Tibetan monasteries, such black tea, flavored with yak butter and salt, helps warm the cold bones of the monks through the crystal nights of the Himalayas.

Under the great Buddhist emperor Ashoka, medical herbs were planted along the roadsides for everybody's use (would that not be a good idea today, instead of spraying 2,4,5-T herbicides?), and hospitals were created not just for ailing human beings, but for animals as well. Knowledge of herbs and healthy living spread east to China and west to the Roman Empire by these orange-robed bhikkus. Though the Buddhists deny that those “born of bud and stems” are subject to karmic causation—being the result of the mixture of the dhatus and the *subha* (qualities of beauty and ugliness)—one should, nonetheless, be kind to them as they are living beings.

Before leaving India, it should be mentioned that besides the Ayurvedic and Buddhist schools of medicine, there is the *Unani* medicine of the Muslim communities. With its doctrine of four humors, astrology, and Galenic herbal recipes, it has its roots in the medical schools of medieval Arabia and is based on Greek natural philosophy. Also, the thirty to sixty million tribal people (*adavasi*) of India still practice various forms of shamanistic medicine, involving plant and nature spirits, possession, animal sacrifices, and the like.

Primitive Medicine and Shamanism

That even the Neanderthal cavemen used herbal medicine seems to be indicated by a 60,000-year-old burial unearthed at Shanidar in northern Iraq. Analysis showed that the soil underneath the skeleton of the cave man was covered with the pollen of marsh mallows, grape hyacinth, yarrow, ephedra, henbane, Saint Barnaby's thistle, and other medical plants that are to this day used in folk medicine. The Neanderthal had been bedded in pine bows, flowers, and herbs as though to send life-giving, life-sustaining forces along with the departed soul.²¹

It was through Jesuit missionaries, who followed the conquerors, explorers, and merchants, that we have much of our knowledge of primitive, non-Western systems of medicine. The “holy fathers” realized that the whip and gun were not as effective in bringing the

Gospel to the natives. They had witnessed natives' resistance to conversion. Therefore, it was advisable to follow the lead of Saint Francis Xavier, the apostle to India (Goa), China, and Japan. He advocated living with the natives and learning their language, customs, and habits. Thus, Jesuit padres became the first ethnologists, capable of fairly objective observations of tribal peoples. In adopting their lifestyle, dress, and food, they observed firsthand also their healing and curing practices. It was via the Jesuits that a number of native American plants became known in Europe, including the Peruvian fever bark (cinchona) containing quinine, the cure for fevers and malaria (from the Italian *mala aria* = bad air). When Oliver Cromwell, the protestant marshal of England, was on his deathbed with the fever, he refused to take this "Jesuit bark" because it came, as it were, from the hands of "satanic papists." It was also by way of the Jesuits that hypnosis—introduced by Abbé Faria from Goa—and other nonorthodox methods of healing came to Europe.

The healers of traditional societies, popularly called "medicine men" in the Americas, "witch doctors" in Africa, and "shamans" (derived from a Tungu²² word meaning "magician," presumably borrowed from the Sanskrit *Shramana* = ascetic, magician) in northern Asia, share common characteristics: they know the worts; they are grounded in the myths and symbols of their folk; and they master esoteric techniques to "see" and "hear" what ordinary people do not perceive and to travel into "the other world" or the "inside of the world." Ethnographic reports ranging from New Zealand to Tierra del Fuego abound with accounts of shamans locating lost objects, invisibly spying on wicked sorcerers, fighting battles with demons and sorcerers "in the air," retrieving lost souls whose life energy is slipping away, seeing into the body without X-ray equipment, visiting the dead, sensing where the game to be hunted is hiding, and using an animal spirit in their work. The shamanistic phenomenon is so universal that the culture historian must admit that it is not the primitives who are odd, but our modern civilization, which denies knowledge of these things, that is the odd one.

For a number of Western (and Soviet) anthropologists and psychiatrists, shamans are but socially sanctioned hysterics or acute schizophrenics—and in our own society we generally give people of this sort “psychiatric care,” tranquilizers, and shock therapy in an effort to tune them back to “reality.” In societies where these abilities are honored, youngsters who show a tendency—they might have survived a severe illness, might be extremely shy, or might be attended by unusual omens—are taken into tutelage by an older shaman. The shaman does not try to get rid of the quirks, but to develop and guide the unformed potential. The novice might spend years of apprenticeship serving the old shaman or wise woman and learning the arcane techniques. The novice will learn to “find the cracks” in the universe through which he or she will be able to slip into an altered state of consciousness. The novice will be taught to pay attention to dreams and become a conscious actor in the dream world. He or she will pay attention to “illusions” and “hallucinations”: whereas the common individual would likely declare the crooked stick that momentarily looks like a snake in the pale light of the moon to be an illusion, the novice will be trained to focus on this “illusion” and examine it. Much like the yogi of India, he will be taught to fast, to observe his mind, to control his body reactions, to put himself into a trance by chanting and drumming slowly, to recognize beings that exist only on the “inside”—like unicorns, dwarves, elves, dragons, devils—and to call them up to do things for him. He will master the lore of herbs, learning the healing ones and the baneful ones and those, like the poisonous nightshades, that, carefully and correctly dosed, help him “fly” and “see.” Educated in this way, the shaman becomes a wortcunner in the true sense.

The training is arduous and often painful. In Siberia, the initiate will slip into a coma that lasts for several days, often bleeding from his body openings. He will have the experience of being hunted, slain, torn apart bone by bone, cooked, and consumed by ravenous demons of illness. Each ogre that eats of him, however, represents a disease that he will later have the power to cure. A “mother animal” will then put his bones back together and take him to a nest on the

Tree of Life, where he will mend. When he leaves the nest, he will suddenly awake on the floor of his shaman's tent as a full-fledged shaman.

There are always individuals born with such inclinations, but in modern society children who show signs of this nature will have a difficult time. The battle against shamanism was the battle of the Church against "heathenism" from the beginning. Burning witches at the stake and the vengeance wrought upon "primitive" religion are historical testimony to this. As the power of the Church gradually slipped into the secular hands of the men of the Enlightenment, the repression of shamanism was not lessened, but became intensified. Generally, eight to twelve years of compulsory schooling is enough to blight any shamanistic tendency. Locked away from the colors, sounds, and smells of the outdoors, the ability to "read the script of Nature" (Paracelsus)—to pick up the fine and subtle signs of field and forest, of weather and season—are withered and wasted. Trained in boring, dull routine, tied to the wintry black and white of the printed page, drilled in abstract mental functions, deprived of soil, sun, and imagery, how can a child develop these qualities? Those who are dreamers become stigmatized as slow learners. Schools are the instruments to turn the free-floating imagery of the soul into rigid patterns and abstractions; they are training grounds for the curtailed functionaries of our bureaucratic and technical institutions. For those dreamers who slip through the fine-meshed net, anyway, there is little chance that their predisposition will develop into a useful and beneficial gift for their society. Who is there to understand them and train and guide these wily tendencies? At most, there might be a slot in the entertainment industry or the arts, or the path may lead into drug addiction and socially preprogrammed self-destruction.

American Indians of the Southwest will hide a child who shows signs of potential shamanism from the school authorities. They never let scissors touch the child's hair and will give him or her into apprenticeship with an old medicine man or medicine woman. In that way, the sacred tradition is maintained underground. The Iroquois, too, have kept their shamanistic curing societies secretly

alive, unbeknown to missionaries, white neighbors, and anthropologists. Their existence was not revealed until an Iroquois himself, in his bid to establish himself as an academic anthropologist, published a report of the clandestine existence.²³ In a similar way, despite centuries of repression and persecution by bigoted churchmen and narrow-minded schoolmasters, wise women and wortcunners have maintained a tradition—albeit battered and, at times, atavistic—that is surfacing here and there (e.g., Maurice Mességué, Rudolf Steiner, Arthur Hermes, Maria Treben, and others).

Despite a current popular wave of occultism, herbology, and astrology, much of the lore remains secret—it is difficult to master, and the adepts know that minds possessed by dark motivations would use the insights to do harmful things: they would use it vainly to have power over others or would exploit it commercially. The latter happened in recent years with herb gatherers who turned herbal teas and capsular herbal powders into a lucrative business, not realizing that they were violating the spirit of herbology. At worst, it might be deliberately misused, as it was by the Secret Service in the 1950s, when all kinds of psychedelic plants were tested on unknowing subjects for potential use in warfare. Another reason for the secrecy of the herbalists, who are usually not college professors or medical doctors, is the risk of being ridiculed or even arrested for “illegal practice of medicine.” By his very nature, the true shaman does not fit easily into the parlor of the bourgeoisie, into the strictures of the establishment: by his nature, he lives beyond the borders of the established worldview with its “normal” perceptions and goals. Part of his training consists in the ability to dissolve and relativize the culturally agreed-upon, defined, learned, structured images and patterns of the normal world. He has learned to “dissociate” from the socially fixed patterns and enter into an altered state of consciousness, where the instinctual level of our minds is tapped. Arthur Hermes called this the level of “thinking with one’s guts, liver, spleen, or heart” instead of the brain. It is the level at which the dumb beasts of the field know which plant they may eat and which to avoid. At this level, the shaman “sees” the

nature of the plant in question and then brings what he has “seen” back into the human world by clothing his insight into the fitting imagery that his mythological tradition provides. In his ability to put established, frozen dogma and behavior systems into question, the shamanistic person is often in conflict with priests and authority, but is under the tutelage of the “wild” gods. Shiva, the god of fever and fire, and Kali, goddess of destruction, bless the Indian ojha or Nepalese *jhankrie*. For the Germanic tribes, wily Woden (Odin) was the god of seers, bards, and magicians. The Slavs, using the wolf as a symbol of the ripper and destroyer, called the shamanistic wortcunner *volkhava*, wolf-man. Christians were quick to identify this as diabolic, placing most wortcunning and planting of magic herbs under the auspices of Diabolos, the devil.

The “Third Eye”

My first experience with shamanism was during a one-year stay at a spiritualist community in Ohio, which, since the end of the Civil War, had conjured up spirits in daily rites that guided their lives.²⁴ An itinerant medium, carrying with him the plaster cast of an Indian chief who was his spirit guide, led the séance. Gospel music played on a simple record player created the mood. When the “vibrations” were just right, the blindfolded medium started his séance. Sometimes, he shouted at “earthbound spirits” to leave a sick person. He touched parts of the body and told an older woman to throw her pills down the drain and use herbs instead. One woman was given a “pet” geranium, which would be her “health barometer.” The key belief of the spiritualists was that “thoughts are things”: thoughts have consequences in the outside material world, in one’s own body as well as in the body of the neighbor, as much as any sticks or stones might. I filled my notebooks with comments about “idealistic ideology” and “retentions of prescientific superstitions.”

As most anthropologists of the 1960s, I had interpreted it as a psychological but ineffective attempt to control the terrors of the

real world, of death and disease. But now, after learning about the profound somatic effects of biofeedback techniques, hypnotism, Reichian therapy, autogenic training, and yogic techniques—in which concentration and meditation can consciously, deliberately control body temperature, blood pressure, heart beat, appetite, pain sensitivity, blood flow from wounds, and other functions of the autonomic (vegetative) nervous system—my attitude has changed. Even the dreaded plague of industrialized civilizations, cancer, can be affected by the mind. This is shown by the visualization therapy of the Simontons.²⁵ Cancer patients are asked to calm their minds and to vividly picture their cancers (the resultant images are much like shamanistic drawings of demons, monsters, and worms that are cast out or sucked out or, in the case of the American Indian medicine man, lured out by the promise of tobacco). In the same vein, the patients are to imagine the natural healing forces of their body like heroic knights defeating the dragon of cancer, to picture themselves fully well and happy. The positive results of this basically shamanistic technique in treating even so-called terminally ill patients is frankly astonishing. The shaman with his drums, rattles, masks, dance, and stories, backed up by concerned members of the kin group, is doing the very same thing: he is creating imagery that leads to well-being.

How can this be possible? Recent research shows that the division of the nervous system into a conscious portion and an autonomic system beyond our conscious control does not quite hold. We now know that emotions and states of mind profoundly influence both the sympathetic and the parasympathetic functions of the autonomic nervous system. Permanent states of unhappiness, anger, or fear can cause disequilibrium in the functioning of the autonomic nervous system.

Function of the Autonomic Nervous System	
Sympathetic Action	Parasympathetic Action
dilation of pupils	narrowing of pupils
dry tear ducts	tears
dry salivary gland	mouth waters, slobbering
cold sweat	dry skin
arteries contract, pale skin	arteries dilate, red skin
goose flesh	smooth skin
relaxation of bronchi	bronchial spasms
heart palpitation	slow pulse
peristalsis slowed	peristalsis sped up
digestive glands slowed	digestive glands secrete
adrenalin secreted	adrenalin inhibited
no urge to urinate	urge to urinate
sphincter tightened	sphincter loose
decreased sexual excitement	sexual excitement

We know that stress, riled emotions, and upset states of mind, if prolonged, can lead to constipation, ulcers, asthma, emphysema, hemorrhoids, rheumatism, arthritis, and even cancer and the susceptibility to antigens. Even the functioning of the body's immune system is affected. (It is easier to catch a cold when emotionally upset!) A key factor to health is how stress and upset are dealt with. This becomes a matter of a worldview that interprets causes and gives reasons. A worldview is supported, guided, or changed by symbols and images, presented by visualizations and dramatic presentations and enforced by rites and rhythmic repetitions. This is the province of the shaman, the master of imagery.

The master controller of the autonomic nervous system is the hypothalamus. It is the nexus between emotion, endocrine glands, and the motor action of the body. It is the bridge from the old brain that ruled the instinct of our premammalian ancestors and the new brain (cerebrum) with its daylight consciousness. At one time in prehistory, it was connected with the pineal gland, forming a light-sensitive organ on the foreheads of bottom-dwelling fish and primitive amphibians. It seems to be the physical basis of the third eye, so universal in mythology and so important to shamans. It is the organ that links imagination and body function. The Ohio spiritualists told me that I did not see their spirits because I did not have my third eye open. Shiva, the master of yogis, animals, and wild plants, is always pictured with the third eye on his forehead. He sits in deep, blissful trance or dances in ecstasy and ravishes his lover, Parvati. Tantric (sex) yoga is said to open the third eye, as are a number of yogic techniques (fasting, chanting, drumming, posturing) that are familiar as shamanistic techniques. Drugs of the nightshade family and magic mushrooms, known to affect the autonomic nervous system, also potentially to awaken the third eye. This opening of the third eye amounts to awakening an older, instinctive level of consciousness and *bringing it into conscious control*. When this faculty is fully awakened, extrasensory perception (ESP) can develop, and intersubjectivity can be experienced not only with human beings, but also with animals and even plants. In images one will perceive the virtues of the plants, as well as the “demons” that cause illness.

The archaic “reptilian brain” that we still carry with us is involved in the ecstasy of sex, mystical states, and empathy, all of which transcend or are prior to ego development. The ego belongs to the everyday state of rational consciousness and is coupled to the recently evolved cerebrum. The shaman does not denigrate the rational mind or the ego. He knows their worth, but he does not limit himself to them. His consciousness goes farther and deeper, to include the archaic mental functions.

It should be warned, however, that the awakening of this faculty is very difficult, as any reading of shamanistic initiation accounts

tell. The third eye can also easily turn into an evil eye, projecting negative contents. For this reason, shamans are often feared as much as they are needed and, at times, are even killed by their companions.

American Indian Herbalism

For most modern Americans, herbalism and “Indian medicine” are synonymous. The image of the stolid children of the wilderness, close to nature, noble in inclination, willingly helping the Pilgrims through the first harsh winter, curing their scurvy with herbal potions, showing them how to grow corn, and feasting on turkey with them, has become part of American folklore. Surely, such medicinal knowledge was passed on to the newcomers. An Indian named Joe Pye wandered the colonies selling herbs, including a tonic for typhoid fever that was derived from the pink-flowering composite named after him: the Joe Pye weed (*Eupatorium purpureum*). Every once in a while, a hardy pioneer would pick up a native drug from the Iroquois or Shawnee. Dr. Albert Isaiah Coffin (1790–1866), who led a popular movement of herbalism (Coffinism) among the British working class, claims that as a child he was saved from tuberculosis by an old Gypsy-looking Seneca woman with a decoction of prickly ash (*Zanthoxylum americanum*). Much of the botanical materia medica of the Cherokee Indians became part and parcel of Appalachian folk medicine. Thomsonianism, the medical movement using herbal emetics (foremost the native pukeweed, *Lobelia inflata*) and teas in combination with sweating and steaming the patients, certainly sounds like American Indian medicine, although Samuel Thomson never acknowledged a debt to the natives.

Among the many medically effective plants found in American folk medicine that derived from Indian lore are the following:²⁶

- For **fevers**: Virginia snakeroot (*Aristolochia serpentaria*), sassafras (*Sassafras officinale*), and dogwood (*Cornus florida*)

- As a **cathartic**: mayapple (*Podophyllum peltatum*), wild senna (*Cassia marilandica*), white turtle head (*Chelone glabra*), Culver's root (*Leptandra virginica*), and the bark of the butternut tree (*Juglens cinera*)
- For **pleurisy**, or **lung inflammation**: the root of the butterfly weed (*Asclepias tuberosa*)
- Against **dysentery**: slippery elm (*Ulmus rubra*) and bloodroot (*Sanguinaria canadensis*)
- **Colds, influenza**: boneset (*Eupatorium perfoliatum*)
- As a **styptic**, or **blood stauncher**: Canadian fleabane (*Erigeron canadensis*) and witch hazel (*Hamamelis virginiana*)
- Against **cancer** and **felon (whitlow)**: pokeweed (*Phytolacca americana*)

As tempting as it may be to romanticize the exchange of herbal information between the noble savage and the new settler, the trade was rudimentary and far from complete. It was not long before the relationship between the Pilgrims and the Indians soured and the Bible-toting pioneer was not inclined to learn from the heathen savages:²⁷

Ever since the Pequot and King Philip's War, in the middle of the seventeenth century, the Indians were referred to by the New Englanders as "tawny serpents." The Puritan leader, Cotton Mather, called them the "Children of Satan"; Solomon Stoddard asked that bloodhounds be used to track them down as one would bears; premiums were set for Indian scalps; and the saying that was to last the entire pioneer period, was coined, "the only good Indian is a dead Indian."

Under those circumstances, the Indians were inclined to keep their herbal knowledge to themselves.

The concept of private property concerning land use, water rights, or the right to use stored foods, tools, or equipment did not exist for the Indians. This disregard for private possessions made them appear thievish, as they would often give something and then take it back, leading to the concept of "Indian giver." There was only one

area that approximated our private property concept, and that was in the use of power songs and medicines that the guardian spirit had granted to the individual during his vision quest. These chants and plant remedies could be sold or given to a favorite nephew, or they might pass away with the death of the owner. Certainly, they would not be passed on to the hostile Yankees.

Most of the medical herbs that the pioneers used were those mentioned in the popular Nicholas Culpeper's *English Herbal* and imported from Europe. Importing drugs was a profitable business until the American Revolution made it a patriotic duty not to buy English goods. It was then that the Shakers found a market for their herbs, a market that grew with the increasing popularity of such movements as the Thomsonians and the Botanic-Eclectics. In the meantime, the medical profession had nothing but loathing disdain for the "simples" of the savages and preferred to bleed, blister, and purge their patients with mercury, antimony, and arsenic.²⁸

As the tribes were ravaged by smallpox, influenza, and other "white man's diseases" as they were pushed out of their hunting grounds and defeated, their traditions fell apart and, with that, the herb lore that formed part and parcel of their worldview. Contact with the coastal Algonquin brought about

less rapid decay of minor technologies, more rapid loss of important economic practices, and the most rapid loss of native religious and ideological systems; the survival of a great body of vestiges of older Indian and European supernaturalism as superstition alongside of an introduced official religion; the substitution of European medicine and book herbalism rather than the adoption of a genuine European folk-medicine or any fragmentary survival of native medicine.²⁹

In other words, much of what passes as Indian medicine is based on European herbalism, and that remains true to this day with many of the modern American Indian herbalists who are becoming popular.

Much traditional herbal knowledge of the Woodland Indians, such as the Cherokee, was destroyed when the tribes were forced to leave the ancestral environment of the Eastern hardwood forests and were

shipped to desert reservations west of the Mississippi (through the Indian Removal Act of 1830 under President Andrew Jackson, the Cherokee and Creek Removals of 1835, etc.). Ironically, during this time of the destruction of native cultures, “Indian doctors” and “Indian remedies” became popular, along with the wooden cigar-store Indian. The “Indian doctors” made preposterous claims of having been initiated into the Red Man’s medicine:

for years [the Indian doctor] plied himself in the wilds of America among the natives of the forest where he has undergone all the horrors and deprivations incident to savage life in order to collect and bring together that knowledge which should be instrumental in saving the lives and preserving the health of his fellow creatures.³⁰

Not only were Indians exterminated or pushed into environments unknown to them in Western reservations, but the natural ecology of North America itself changed beyond recognition with the felling of the virgin forests and the killing off of game. New bugs and birds, such as the sparrow and starling, came with the palefaces, along with many Eurasian weeds, grasses, and herbs, which the Indians called “white man’s footsteps.” Some escaped out of the physic gardens of the early colonists; some, like Queen Anne’s lace (*Daucus carota*), which is probably the garden carrot, reverted to a wild state; some are just plain old field and garden weeds carried with the seed grain. Many of these newcomers nowadays overgrow the countryside and are excellent sources of food and medicine. Among these immigrants are the following:

- bonewell (comfrey)
- bouncing bet
- burdock
- catnip
- chicory
- coltsfoot
- costmary

- couch grass
- curled dock
- ground ivy
- heal-all
- hollyhock
- hound's-tongue
- mugwort
- mullein
- plantain
- Queen Anne's lace
- sorrel
- dandelion
- daylily
- elecampane
- feverfew
- sour dock
- tansy
- yarrow

The materia medica of the Indians of the Southwest and Canada was left more intact. Indians on reservations, not being able to afford expensive patent medicine, incorporated the herbs of the Europeans into their medical lore—sometimes even giving them new and interesting uses. Now let us look more closely at two Indian societies and their herb lore to help us better understand traditional medicine.

CHIPPEWA

The Chippewa, or Ojibwa, are wild rice gatherers of the upper Great Lakes region. They are known through Longfellow's Romantic poem

Hiawatha and the descriptions of a number of travelers and anthropologists. Francis Densmore, an American anthropologist, has given us a good description of the ethnobotany of these native peoples.³¹ In case of illness, the Chippewa could consult a *djasakid* (juggler), a shaman who could call upon the spirits, or could get help from a member of the lodge of the herbal doctors, the *midewiwin*. The midewiwin believed, much as Paracelsus, that *all* plants have a use. Each individual herb doctor, however, had one or two specialties as far as disease and cure were concerned. Unlike the modern doctor, the Ayurvedic physician, or the European herbalist, the Chippewa doctor would refuse to cure all and every sickness. The materia medica of these Indians is received in dreams from *manido* (spirit powers)—a fact that the ethnobotanist Densmore does not know what to do with; nevertheless, he is surprised that, in terms of modern analysis of the “active ingredients,” the pharmacopoeia is similar to those used by European herbalists.

Members of the curing society follow the “bear path,” passing from lower to higher degrees of initiation in the midewiwin lodge. The bear, a manido-laden animal that instinctively knows the vegetation and digs for roots with its claws—the preferred remedies being root drugs—is a fitting symbol of the best of medicines, the “bear” medicines. Knowledge of such bear medicine is a jealously guarded secret. The plants are dried and pulverized and often combined with an aromatic herb to foil identification. The medicine men and medicine women say that this is done primarily out of respect for the plant. Such secrecy is not uncommon in other parts of the world. And where it has not been practiced, there have been abuses with whole regions being denuded of a species for commercial profit. Even the names of the plants are kept secret. Besides, each *mide* (herbal healer) will have his own private name for a plant—there was, after all, no Linnaeus to standardize the nomenclature. The names used indicate their effects, their appearance, or where they are to be found. Mostly roots are used, but sometimes the whole plant. Roots are usually dug before the sap runs in early spring or in late fall, but the bark is gathered while the tree or shrub is in full sap flow. Leaves are not washed and are dried

by hanging upside down in bundles—as is common for herbalists everywhere. To store the pulverized medicines, they are kept in bags of leather or birch bark, their contents identified by a system of knots.

When a plant is about to be dug up, a hole is poked next to it and a bit of tobacco dropped into it, while one talks to the plant, telling it something of this nature: for example, “You are a beautiful plant and a benefit to human kind. I give you tobacco to remind you of this, so that you will do your best for me,” or, “Your spirit and my spirit—together may they form a spirit of healing.” The Chippewa wortcunners look for outstanding plants of the species, and they prefer herbs with special signs—reminding us of the doctrine of signatures—such as roots shaped like a human body, roots with special crooks and twists, unusual forms, sterile plants, and so on.

Preparations are given as infusions (teas), poultices, or decoctions (boiled for a specified time) or are boiled in maple sap or thin maple syrup. At other times, pulverized roots and leaves are strewn on red-hot stones, and the patient inhales the smoke from under a blanket—much like the Scythians inhaled hemp fumes. Herbs rich in essential oils are frequently steamed for the patient to inhale. Other herbs are boiled in grease and used as a salve. Still others are taken as snuff, chewed, or sprinkled into incisions made into the skin or poked under the epidermis with porcupine quills. Some are given by means of an enema made of a deer bladder and a hollow rush. Still other remedies are smoked in combination with the inner bark of the red willow (*Cornus amomum*) or tobacco. The amount of herb given to the patient is individually adjusted. Calamus root, for example, is measured by the length of the index finger of the patient; other even more potent roots might be measured by the length of a single finger joint of the patient. Up to twenty ingredients might be put into an herbal preparation. This presupposes a highly sophisticated knowledge of biochemical synergistics.

The drugs are usually given in combination with the sweat lodge and with cleansing the patient with an emetic. The sweat lodge is a tight enclosure, much like the Scandinavian sauna, that is filled with

hot steam created by pouring water over red-hot stones just removed from a fire. Here, patients can sweat their illness out, often aided by a diaphoretic tea or decoction, including birch twigs (*Betula nigra*), elderberry blossoms (*Sambucus nigra*), and others. Furthermore, instructions about diet, resting, and fasting are given. Sometimes the medicinal plant is not given internally, as a poultice, or applied as a salve, but is worn like a charm. The mere presence of the medicine is said to have an effect. The Chippewa concept of health is much more broadly conceived than it is for modern physicians. It includes general well being and good luck. Herbal charms were used not just to ensure physical health, but sometimes to find lost objects, to harm enemies, to bring luck in hunting and fishing, to scare poisonous snakes, or to win the love of a sweetheart.

IROQUOIS

The Iroquois, a matrilineal, horticultural tribal confederacy of the upstate New York region, are famous beyond their numbers, having kept white settlers east of the Allegheny Mountains for nearly two hundred years, having controlled the beaver-pelt trade, providing the heroes of J. F. Cooper's *Leather Stocking Tales*, and becoming known to Marxists all over the world as an example of the communistic *Urgemeinschaft*, after Friedrich Engels discovered H. L. Morgan's ethnographic descriptions.

The Iroquois, like most non-Western peoples, had a wider definition of health. It included general well-being, mental ease, and good luck. If illness came despite sweat baths and living according to the injunctions of one's guardian spirit—whom one encountered in one's youth after a period of seclusion and fasting—there were several causes to be considered. The etiology of the Iroquois is as follows:

1. **Natural causes**, such as broken bones, colds, or natural injuries. These are cured with herbs. If a natural illness lingers,

herbs are combined with sweat baths.

2. **Witchcraft.** Witches with ill intentions are magically capable of injecting hair balls, splinters, bear's teeth, or blood clots into the body of the victim. The cure consists of giving an emetic and having a shaman suck such an intrusion out of the body with the aid of blowing tobacco smoke and chanting.
3. **Secret desires.** Unfulfilled wishes that might express themselves in dreams can cause illness and wasting away. Dream-guessing rites and help from the Animal Curing Society would be the remedy. Psychoanalytically oriented anthropologists have been quick to point out the similarity to the analysis of Sigmund Freud. The *anacawander* festival, a carnival-like, sexual free-for-all celebrated in the winter, or a game of lacrosse or tug-of-war, might be the cure.
4. **Ghost sickness.** A human being can be so frightened by a ghost that his life energy might ebb away. The cure for this is provided by the Society of the Chanters for the Dead, who know how to deal with the restless dead and who feed the hungry ghosts.

All cures are supported by the obligatory tobacco offering, fasting, herbal infusions, sweat baths, and the use of charms. Drum, rattle, and song are believed to strengthen the power of the herb. Once a cure has been successful, it has to be periodically renewed with a tobacco offering, dancing, and fasting. If this is not done, the positive power (*orenda*) that worked the cure turns bad and becomes a harmful *utgon*. The rites that charge up the medicine power belong to the curing societies. The origin of such a society is always based on a supernatural encounter of a hunter lost deep in the forest with a spirit being. The spirit would reveal the cure of a certain disease as a gift in return for a periodic festival with chants and tobacco offerings. The hunter would learn the power songs, the helpful herbs, and the dance pattern that would let the *orenda* of the supernatural being (the "controller") flow in the direction of the sick person.

The number of curing societies, equaling roughly the number of major illnesses, includes the Bear Society, which deals with “wasting away”; the Society of the Chanters for the Dead, which feeds hungry, harmful ghosts; and the Otter Society, which facilitates easy birth, causing the baby to slide out of the womb like an otter down the bank of a creek. Other societies are the colorful False Faces, whose bizarre, carved wooden masks remind one of the traditional carnival masks of the Alps or the demon masks of Tibet; the Pygmy Society; the Little Water Company; the Society of Mystic Animals; and others, all of them consisting of former patients who have been cured.

The Iroquois were excellent herbalists. Tasting was one of the criteria of identifying the plant. Occasionally, herb gatherers died tasting poison hemlock root. It is assumed, however, that this was not just accidental, but a common way of shaming one’s fellows by committing suicide without causing unnecessary disturbance. During the centuries of contact with white settlers, the Iroquois picked up elements of European herbalism and folklore, which they retained even after commercial preparations and patent medicines became available in drugstores. For diagnosis, they are not adverse to reading tea leaves, laying cards, or scrying crystal balls—all of which is now part of Indian medicine.

African Medicine

Traditional medicine in Africa has all the elements familiar to us in other systems of folk medicine. Here, too, the human being is considered “an integral somatic and extra-material entity,” and “disease can be due to supernatural causes arising from the displeasure of ancestral gods, evil spirits, the effect of witchcraft, the effect of spirit possession, or the intrusion of an object into the body.”³²

Health is a wide concept, the absence of which includes both disease and bad fortune. According to the Swazi, both are caused by angry ancestral spirits or by the evil power of witchcraft. Immediate

causes of illness can be physical ingestion of bad food or drink, frame of mind (believing one is sick when one is not), astral influences deriving from the moon and stars, soul loss, evil telepathic messages, and deeds done in previous incarnations. Divination plays an important role in specifying the cause and determining the cure. Seeds or bones might be cast by the oracle priest and interpreted much like the I-Ching oracle in China or the rune staves of the Nordics. A *nganga*, commonly referred to in Western literature as a witch doctor, might make use of trance. Mind-altering drugs, dream analysis, starcraft, and anamnesis (delving deeply into the patient's past, including his past lives) might play a role in the diagnosis, along with careful observation of the mood and appearance of the patient, tasting his urine, smelling his body, and looking at his vomit.

The treatment involves mostly herbal substances, along with the lower animal and mineral ingredients, similar to the stock of the Chinese apothecary. Herbs are picked at certain times and lunar phases and are sung and chanted over. For example, liver balm (*Ageratum conyzoides*) is collected in the dead of night. The West African herbalist chews nine or seven seeds—for a male or female respectively—of the pungent, spicy grains of paradise (*Aframomum melegueta*) and spits them on the plant while reciting the appropriate incantation. The plant is then mixed with palm oil and rubbed on the body of a child that cries too often, being influenced by witchcraft or spirits.³³ Drugs are given as teas, gargles, plasters, salves, steam preparations, smoke, or enemas or are rubbed into incisions or taken together with clay (kaolin) or ant-heap earth. Healing might involve singing, dancing, sacrificing a chicken, or applying holy water or holy oil.

Herbalists in Africa are considered magical persons. One can see them sitting in the bustling African markets with the various herbs and potions they are selling spread out on blankets in front of them. Their faces are painted white, the color of spirits, indicating their intimate contact with the invisible side of life. Next to the piles of fragrant herbs, one finds claws of predating birds, bits of a lion's or hyena's flesh or skin, crocodile teeth, and other ill-smelling, power-

laden substances, which are mixed with the herbs to increase their potency.

Elements of traditional African medicine have become part of the folk medicine of the American South. The Gullahs, blacks living in the low country near Charleston, South Carolina, have maintained the eating of clay and the use “voodoo” potions and include some plants that might have come with them from Africa, or at least the Caribbean, such as the pomegranate, chinaberry, and wormseed.³⁴

Homeopathy

We shall now consider some “offbeat” herbal healing systems that effectively heal people but, as with “primitive medicine,” cannot be satisfactorily explained in terms of the established worldview. One such system is homeopathy, a healing philosophy that theoretically should have atrophied and disappeared long ago—much like religion “as the opiate of the people” in the former communist countries. Yet despite acrid attacks or being chillingly ignored, homeopathy continues to thrive, occasionally curing patients who have been abandoned by conventional medicine.

Homeopathy is the inspiration of the Saxon doctor Samuel Hahnemann (1755–1843). He was a country doctor whose conscience bothered him when he saw the results of the standard medical practices of bloodletting, cantharid blistering, and the administration of mineral poisons such as mercury and arsenic. He continually looked for safer and more effective forms of medicine. One time, after having ingested a quantity of quinine, he noticed his body developing intermittent chills and fevers, much like a malaria victim. The idea struck that substances that cause symptoms in healthy organisms might be the very substances that might cure sick organisms suffering from similar symptoms. Like cures like! Such homeopathic remedies might arouse, needle, and nag the affected organs, stimulating them to regain healthy functioning. If, for example, the leaves of bitter wormwood upset the normal stomach, the proper dosage of that plant would cure upset stomach. He tried

thousands of plants on himself, carefully monitoring his own body response. Would the pulse race? Would he sweat, salivate, need to urinate, feel tired, or be stimulated? Then he tried these drugs on his patients. The results were good. Adjusting dosages carefully all the time, they became ever more precise. At times, it was enough for the patient to just smell the substance. An extract might be diluted ten to one and shaken thoroughly to “dynamize” its latent energy, to wake it from its substantial slumber and excite it into its energetic form. Then it would be diluted again and shaken again, diluted again and shaken again, and so forth. At the end of such a process, it was possible that there would be not even a molecule of the original materia medica left in the “potentized” water. A pharmacist or doctor with a materialistic philosophy could only see trickery in this procedure: what is prepared after hours of painstaking shaking or stirring is but a bottle of water with the standard formula H_2O —apart from some impurities, there is no active ingredient to speak of. Well, colleagues at a psychology department have a term for it: placebo effect! The illness must have been “mental” (or hysterical), anyway, a “functional” rather than “organic” illness. Anything the patient could be induced to have faith in, even sugar pills, masqueraded by a long-lettered Greco-Latin name, would have done the same trick. In India, where homeopathy has become very popular, such considerations are superfluous. Since everything has an effect on everything else and every effort will bear some result, why should not these “potentized” waters, so painstakingly prepared, have a healing effect? And they do!

The homeopathic idea is, of course, older than Hahnemann’s 1810 *Organon of Medicine* (*Organon der rationellen Heilkunde*). Paracelsus formulated, “Everything is potentially a poison—it is only the dosage that matters!” An irritant poison can coax a sluggish organ into normal functioning. It can wake it up, so to say. Thus, the lily of the valley, foxglove, and oleander—all strong cardiac poisons—turn out to be the best heart medicines, even for allopathic doctors.

Hahnemann's ideas found a new flowering with the anthroposophic medicine of Rudolf Steiner and Ita Wegmann, which uses mainly herbs—marketed attractively by the Weleda Company—and substances that are diluted much in the same way Hahnemann prescribes.

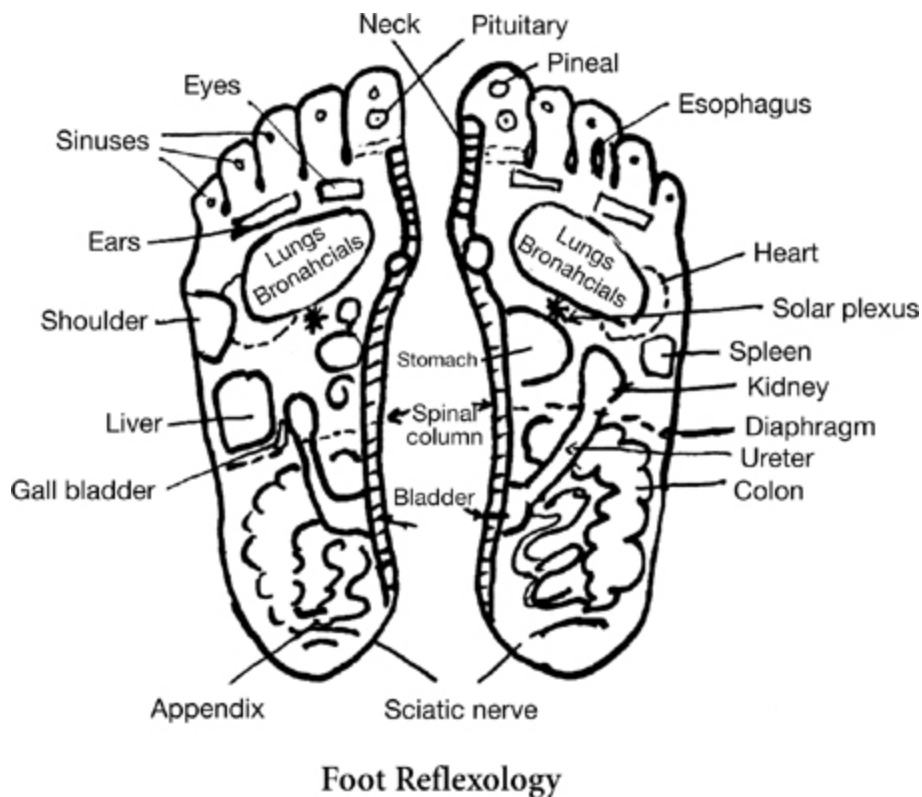
Hahnemann is also a precursor of the Welsh physician and herbalist Edward Bach (1886–1936), who believed that sun-warmed dew absorbs the healing power of the plants on which it is found. Bach started preparing remedies by placing flowering herbs in glass bowls with pure spring water and setting them out in the sun. The remedies, which are thinned down homeopathically, work on a “vibrational” rather than biochemical level. Their targets are not specific physical illnesses, but the moods and negative emotions, which lead to their manifestation. In all he discovered thirty-eight such wildflower remedies, which, as he claimed, would “melt away diseases, just as the snow melts in the sun.”

Hahnemann even changed orthodox medicine. For one thing, his work helped the medical profession get away from mineral poisons, and secondly, the idea of vaccination and allergy desensitization makes use of his principle that like cures like (*similia similibus curentur*).

Reflexology

Reflexology is a technique of foot massage that has its effects (reflexes) in the entire body. It is assumed that the entire body is represented by the foot, with the spine running along the inside of the foot from toe to heel; right below the ball of the foot, one finds the area corresponding to the diaphragm; the arch represents the waist; and various places on the sole correspond to the organs. When these points are treated with finger pressure, there will be a reflex in the corresponding part of the body. Here, too, there are no empirical connections to be found; there are no nerve strands that join the organs to the soles of the feet.

Reflexology is old. The massaging of feet is shown on the Egyptian tomb of Akhmahor of 2300 _{BC} (sixth dynasty). It has been practiced for millennia as “Oriental pressure therapy” and probably derives in its present form from India. In Indian mythology, the goddess Lakshmi, consort of Vishnu, massages his feet, stimulating him into letting Brahma, the creator, rise from his navel to create a new universe. In the 1930s, William H. Fitzgerald developed this concept into “zone therapy,” dividing the body into ten slices that run parallel to the ten digits—an obvious pseudoscientific undertaking. At one time, I was extremely skeptical of such simplistic medicine until observing a reflexologist at work and finding that many of the patients showed steady improvement in cases where official medical practitioners had recommended surgery or prescribed the usual quantum of pills. Along with the foot massage, the reflexologist recommended herbal teas to her clients. On closer observation, the foot kneading amounts to a kind of soul massage. The clients are relaxed and able to talk. Often the effect is heightened by rubbing fragrant herbal balms into the feet. Slowly, the bottled-up energy of the head and nerves is moved into the lower parts of the body. The knots in the soul are loosened; the person feels better. Who dares draw a strict line between body and soul, anyway? Where does the body end and the soul begin? Is going barefoot on grass or sandy seashores not an exhilarating experience, working like a tonic for the entire body?



([illustration credit 10](#))

Marijuana Therapy

Hemp (*Cannabis sativa*), a venerable healing herb used medicinally since ancient times, has fallen into disgrace since the 1930s because of the use of its dried resinous flowers as a recreational drug causing states of euphoria. But once, not long ago, before marijuana prohibition was enacted, hemp flowers and hemp-seed oil played a major medical role. Prior to the invention of the aspirin pill, hemp was the most prescribed pain reliever. Indeed, between 1842 and 1900 half of the medical drugs that doctors prescribed contained cannabis.³⁵ The oil from the seeds is rich in unsaturated gamma-linolenic acid (GLA), which is important in maintaining optimal tissue function. For Slavic and Germanic peoples, the nourishing seeds were part of everyday porridge or muesli. Indeed they were part of the food offered to the departed ancestors at Christmas or on

All Souls' Day (Halloween), when a plate of food was set aside for them.

Modern scientific research has certainly substantiated the reputation of this plant as a powerful healing medicine that is helpful in treating glaucoma, migraine headaches, neuralgia, fibromyalgia, menstrual cramps, neurodermatitis, hyperactivity, ulcerative colitis, the side effects of chemotherapy for cancer, and many other illnesses.³⁶ In the meantime hemp has been legalized for medical use in a number of states. It is an excellent remedy for all sorts of the stress-related health problems that plague modern industrial societies. Dr. Alphonso E. Calle, a Columbian physician who studied the use of bhang and ganja in Benares, India, told me the rationale. Most diseases are caused by "knots in the soul" (disturbances of the psychosomatic constitution), tensions and stresses that settle into an organ. If the patient can relax, dissociate, or see the problems in a new light, these tensions might dissolve. Hence, he recommends the use of hemp for all kinds of illnesses, such as insomnia, neuralgia, gout, and rheumatism. Tinctures of hemp are recommended for catarrh, menorrhagia, and chronic cystitis. Resin and oil from the seeds are used for inflammations. Following the herbal of Dioscorides, Calle claims to have cured ear infections with fresh hemp juice.

Conclusion

So much then, for a brief overview of unconventional and non-Western therapies. The fact that they are effective and that millions of people are helped by them should suggest that our current academic medical paradigm is not the final word of truth. Current medical theory is, as cultural anthropologists would point out, part of our specific cultural construction of reality, part of the culturally sanctioned myth we live by. With this in mind, let us look at basic suppositions of traditional herbalism in the West. Here, too, we discover a mythical physiology and vitalistic theories that find no place in the paradigm of modern medical theory.

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CHAPTER THREE

*Philosophy of
Western Herbalism*

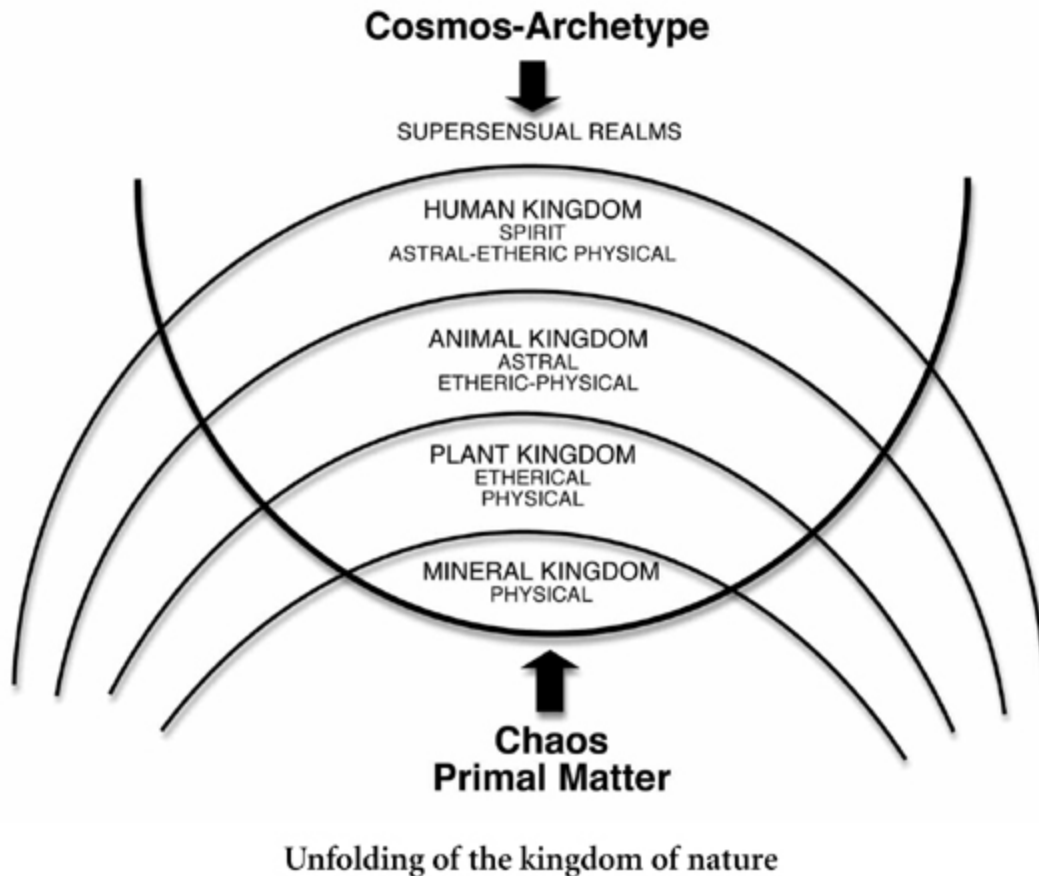




It is difficult to untangle the many streams of wortcunning and herbal lore flowing from megalithic times to the Celts and on to the peasant healers, from the classical cultures of the Mediterranean to the medieval monastic gardens and apothecaries, and from the spice gardens of Asia and native ethnobotanies of the newly discovered regions of the world. All have contributed to the basic philosophy of herbalism of the West. During the Renaissance, Faustian philosophers such as Ficino, Mattioli, Agrippa von Nettesheim, and Paracelsus sought to correlate and categorize these diverse ideas into a tidier philosophical edifice. This scholarly activity moved a basically esoteric, intuitive body of knowledge into the realm of rational analysis. These carefully formulated systems of causes and effects of planetary powers, stellar influences, signatures, and so on were actually the first step toward a conception of the universe as a mechanism. Fixing the living wisdom of peasants, wise women, and wandering folk into books of natural philosophy and herbals is similar to moving tribal weaving, shields, and artifacts into orderly museum exhibits, marking the end of a free-floating, living tradition. Nonetheless, as we look at the Renaissance conceptualizations, we have valuable clues on hand; and with the tincture of our imaginative faculty, we might bring the corpus back to life.

The deep conviction that all creation derives from a common origin, from Mother Nature, is the foundation of herbalism. Humankind and all other kingdoms of nature appeared out of this womb of being. The “Origin” contains the “All” (Universe), and each kingdom takes a bit of it into manifestation.

Under the influence of the Heavenly Father, the cosmos, or the archetypes, the primal matter (chaos) separates into living and nonliving beings. At a further stage, under the influence of the cosmic formative forces, the living beings separate into plant life and animal life; and, finally, the animal life separates into the many different animal species and the human being. Thus, from the ur-matter, four kingdoms of nature have come into *ex-istence*:



([illustration credit 11](#))

1. **The mineral kingdom.** This is the physical world, composed of the elements that our physicists and chemists write about and obeying the mechanical laws of physics and chemistry. This is the part of the universe that is visible to the external eyes and is, strictly speaking, the proper field of the scientific method of logic and empiricism.¹
2. **The vegetable kingdom.** This is the plant world characterized by a life force (etheric energy). Although plants make use of the chemicals (chiefly carbon, oxygen, hydrogen, and nitrogen) during their life cycle, they do not obey the same laws as lifeless mechanisms or stones and minerals. For instance, they have *levity*: they grow contrary to the laws of gravity. (As John Ruskin once stated, what interests him is not how the apple fell on Newton's head, but how it got up there in the first place!)

Plants order matter in such a way that they grow continuously, forming harmonious geometric patterns, dichotomies, and polarities. The leaves and stem shoot upward toward the sun, and the roots delve toward the core of the earth. This rhythmic, harmonious growing is punctuated periodically by metamorphosis, by a different beat that leads to entirely new forms. Finally, plants are able to reproduce and multiply. That is more than we can expect from a slab of rock or from a machine.

3. **The animal kingdom.** The word “animal” derives from the Latin *anima*, *animus*, meaning “soul.” The ever-growing, metamorphosing, silent world of etheric forces that characterizes vegetation is given a new direction here. Part of the etheric energy has been inverted upon itself, being turned into consciousness and feeling. That is why animals run away when they are frightened or approach when curious; plants are devoid of such a range of experience.
4. **The human kingdom.** With human beings, another element has been added. Like the rock, humans have a physical body; like plants, they grow, reproduce, and reveal a dichotomy (male/female, left and right halves of the body, etc.); like animals, they have feelings, drives, and passions; but beyond that, they have a spirit. They have self-awareness to the point that they can make objects of their world and of themselves; they are aware of a future and a past; their energies are not primarily spent on satisfying the needs and drives of the body, but in arranging symbolic worlds—for which there are not even empirical referents. They constantly quest for meaning; their deeds are accompanied by moral choices, which they are free to make or not.

These are the four kingdoms of Nature. They are part of the “great chain of being,” as Aristotle formulated it. The medieval scholastics put it simply:

The stone is,

the plant lives,
the animal senses,
man understands.

The human being is a microcosm because he manifests all four kingdoms within himself: the physical, the etheric, the soul (or astral, as it shall later be referred to), and the spiritual. (This fourfold nature of the human being is synonymous with the traditional threefold concept of body, soul, and spirit—body referring to both the physical and the etheric nature of the overall structure. The mere physical body is a corpse: when ancients talked about the body, they meant the physical/etheric entity.

Animals are not as fully incarnated as human beings. They, too, have a physical/etheric body and a soul, but their spirit remains with the All, the Origin. The “spirit” of each animal species works from the “inside” of the universe upon them, wisely guiding them. It manifests itself in what scientists, for want of an explanation, have called “instinct” or “genetically determined behavioral patterns.” Guided by their divine spirit, animals are automatically moral and, as individuals, do not have to make the moral choices people have to make. These spirits, perceived clairvoyantly, have been referred to by occultists as the “group souls” or “group spirits” of the respective species; for American Indians and other native people, they are the “mothers” or “chiefs” of the different kinds of animals. Wortcunners and native herbalists are often clairvoyantly in contact with these spirit beings and can call upon their help and guidance.

Plants remain even deeper with the spiritual realm, in the ur-origin. They incarnate not as souls but merely as physical/etheric bodies. Plant souls are still part of the original whole. They thus share in the nature of the original whole, even though their physical/etheric structure touches into manifest existence. In that plant-beings share in the whole, they are *holy* and *wholesome*, bringing *hail* and healing to us and to the world (Anglo-Saxon *haila*, *hailu*, going back to the Indo-European root *kailu*, meaning “complete, wholesome, sound, holy.”)

The human being, as a microcosm, has severed itself from the whole, from the origin, like the seeds from a tree—even though, as a microcosm, the human carries the origin within. Semitic sages have described this emancipated state of being as a state of sinfulness, God-forsakenness, which calls for atonement (at-one-ment). For the Hindus, this microcosmic ego-ness is a state of illusion. Sickness and *dis-ease* are the result of sin for the one, of illusion for the other. The cure is ultimately finding, out of free will, one's proper relation to the whole, orienting oneself to one's dharma (duty). Plants become the means, the intermediaries, and the mediums in attuning the human microcosm to the state of wholeness. Plants heal.

Different species of plants will affect different organs and parts of the body. According to all ancient traditions, including the herbalism of the West, organs are not just accidentally evolved globes of specialized tissue, but are the loci upon which different planetary forces play, centers of different forms of consciousness. Indeed, they are energy confluences where the planets build themselves dwelling places in the microcosm. According to Paracelsus, plant substances can be messengers from the greater wholeness to these centers, restoring the state of health in them.

The major organs are focal points of planetary forces in the microcosm, just as the seven roving heavenly bodies that are visible to the naked eye are focal points for planetary forces in the macrocosm. In the traditional herb books, the moon is associated with the brain, Venus with the genitals and kidneys, Saturn with the spleen, the sun with the heart, Mercury with the lungs, Jupiter with the liver, and Mars with the gall bladder. Thus stated, the ordinary modern reader is not likely to make heads or tails of this. To understand the deeper significance, we must become familiar with the picture of the cosmos as it was formulated during the Renaissance.

The earth, a flat dish floating in an ocean, is covered by seven layers—much like seven cheese bells (or Russian dolls) placed one over the other—that mark the boundaries of the seven “planets.” Beyond these seven spheres is the great canopy of fixed stars, where the immutable archetypes have their home. Beyond the fixed stars,

the ultimate essence, the source, the holy trinity is located. The seven planetary spheres are like seven rungs on a heavenly ladder. Everything that comes into manifestation and takes on visible form on the earth, to be born out of the earth's womb, takes its origin in the source and descends. It is formed by the archetypes and is processed and endowed by the planets (asters) as it passes down the ladder from Saturn to Jupiter, to Mars, to the sun, to Venus, to Mercury, and to the moon. Leaving the moon, it "incarnates"—it takes on "flesh" or matter, the passive substance of the Great Mother (Latin *material* = "matter" is related to *mater* = "mother"). And everything that passes out of existence, everything that leaves the visible sphere, passes the moon and the other planets, eventually returning to the source. Below the earth, some of the ancient philosophers placed the realms of the demons and devils, much like an inferior mirror image of the great cosmic edifice.

The human being—the microcosmic image of this great cosmic edifice—contains all these worlds, spheres, and archetypes within himself. Yea, even the very source of being itself—though the orthodox Christian or Muslim might shudder at the thought—GOD Himself is in the human. For the Hindus, this is the ultimate goal, that the individual may realize, "*Tat tvam asi*" (You are that!). In our normal daylight consciousness, which makes up half of our short lives, this realization is far away. Our daily consciousness is one of habitual thought patterns coupled with sensory impressions—often quite jumbled, lazy, and unclear. The philosophers of science have set for themselves the task of clearing this up, ordering it, and making it more precise. Yet they too are bound by this consciousness. Beyond it, they see "nothing" apart from mental illness and schizophrenia, with awareness ending when the motor/chemical responses of the cerebral organization cease upon death. For occultists, to whom the traditional herbalists belong, this is a consciousness of the mere surface of things, of the dead skin, so to say.

Let us now cast a brief glance at the planetary spheres and powers that are at work in the great macrocosm of nature as well as in the microcosm of each human being:

1. **Moon.** Beyond the surface (the earth plane), there is the lunar sphere. Out of this sphere, things step into visible existence: babies are born out of the watery moon, and seeds sprout out of the moon. The dead pass back to the moon. Lunatics are those who are not capable of developing a healthy, down-to-earth consciousness but drift among the grotesque, fantastic images of the lunar landscape. Lovers are moonstruck—living in the dream of what life might become. We all “go to the moon” every day when we fall asleep and the inner images of dreams appear before the eye of the soul. On returning, we have to wade Lethe’s stream, the stream of forgetfulness. How hard it is to recall one’s dreams! In the lunar world, as is evident in states of lunacy or in dreams, the clear delineation of time and space becomes foggy and rubbery. The dichotomies of subjective and objective, inside and outside, you and I, living and dead, and all such categories that characterize our “normal” existence become wobbly and threaten to disintegrate.

In the macrocosm of nature, the moon determines the tides, growth rhythms of living organisms, and breeding patterns of all lower animal life. In the human body, the moon is connected with the menstrual cycle and other body rhythms. Traditionally, it was believed that the moon creates the skin of the body, that membrane between the inside and the outside. (Skin cells live twenty-eight days, corresponding to the synodic lunation.) Lunar formative forces enter the body through the genitals—having much to do with procreation and sexual desire—radiate throughout the body, and come to rest in the brain.² The brain reflects body processes into “exterior” consciousness, much like the moon in the night sky reflects sunlight back down upon the earth. The moon, that fecund generator of images, stirs up the imagination—that is why poets, lovers, and storytellers love the goddess Luna. Skin diseases and all manner of nervous and hysterical (Greek *hysteria* = “womb, uterus”) disorders are influenced by the moon. They are treated homeopathically with plants assigned to the moon or allopathically with plants contrary to the moon (Saturnian plants). Poison ivy—blistering and watering of the skin—is a typically lunar disease caused by a typically lunar plant that grows as a shady vine and has

white, waxen berries as a fruit. Soporific and psychedelic plants, such as opium poppies, belong to the moon and have the power to propel the consumer quickly into the lunar sphere.

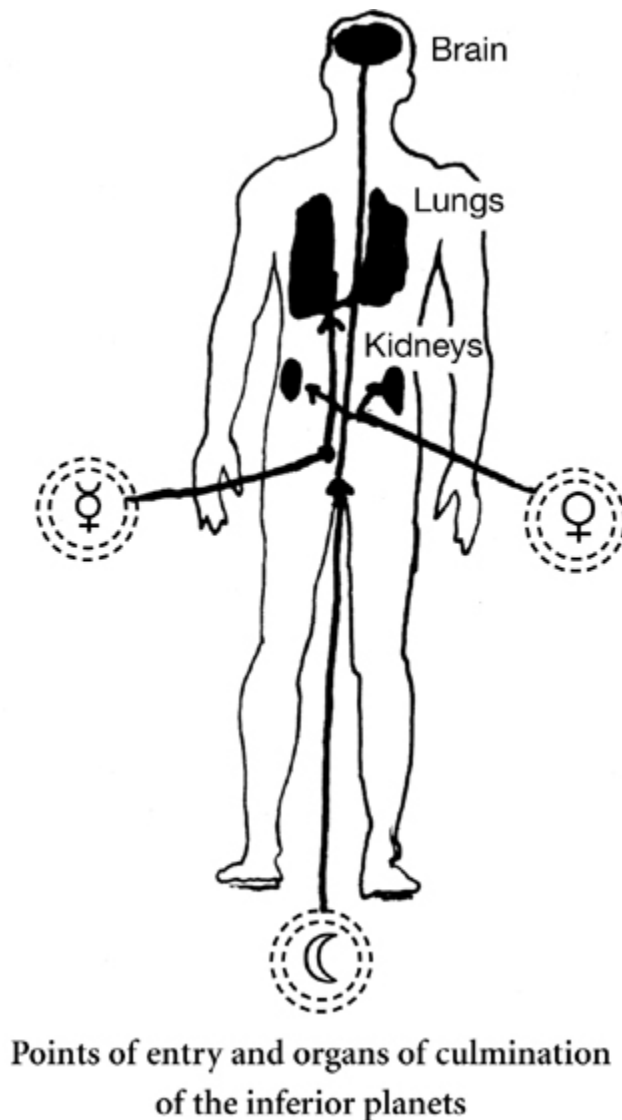
2. **Mercury.** Beyond the kingdom of Luna, we enter the sphere of Mercury. The Romans considered their god Mercury identical with the Greek Hermes, the divine shaman. Mercury controls rapid growth, changes, and communication, being the messenger of the gods. In Greco-Roman iconography, he is shown as a youth with wings on his heels, carrying the staff of Asklépios, with intertwining serpents. He is, thus, the androgynous god of healing, of commerce (the dollar sign, as mentioned earlier, is but the staff of Hermes), of thieves, and of sleight of hand. In the macrocosm, he is master of snakes, of medicines of all sorts, and of slinging vines; his metal is quicksilver; as a planet in the sky, he quickly passes the signs of the zodiac in eighty-eight days. In the microcosm, the energy of Mercury radiates into the lower reaches of the body, creating the lymph system in its wake and culminating in the lungs. Mercurial diseases are pulmonary, respiratory, and those of the nerves and lymph. One is only semiconscious of the lung's incessant (mercurial) activity of breathing in and out.

3. **Venus.** The next realm is that of enticing Venus, the goddess of love. In the external world, the Venus sphere is marked by the bright morning and evening star, which never strays far from the sun. It manifests itself in all things lovely: in maidens and youths; in pretty flowers; in tender, gentle animals, such as doves, rabbits, kittens, and deer; in the delicate green of early spring; in the metal copper and in the green-colored corruption of copper (copper acetate). In the microcosm, Venus is the mistress of desire and romance—ranging from the venial passion of the debauched to the sublimation of platonic love. Her force enters the region of the belly: she stimulates the glands and deposits cushions of fat, creating the gentle contours of the feminine body. The formative Venus forces

find their climax in the kidneys and the urinary/genital system. Her diseases are the venereal diseases and glandular disruptions. In one's dreams, if one is "awake" enough to remember, one might meet the goddess in a region beyond the animated tangle of lunar and mercurial images: she appears as the most quiet, beautiful lady, the true queen of the soul, as Sophia to the poets and true philosophers.

4. **Sun.** The next realm is that of the sun. This great king of the heavens orders day and night and measures the year. He manifests himself in proud and noble beings, such as the eagle and lion; in the heat of the midsummer; in the vigor and virtue of full manhood and womanhood; and in the soul as courage, honesty, and uprightness.³ In the body, he takes his place in the middle, in the heart, just as he does in the planetary spheres, where he is the center of the planets. In the household the warmth-giving hearth represents him. Solar forces radiate into the body at the solar plexus and continue to form the eyes and the heart as their organs, giving light, order, and steady rhythm. Specific illnesses arising when one's relation to the solar forces is out of harmony are heart and circulatory troubles and eye problems.

The sun is the midway rung of the heavenly ladder. The moon, Mercury, and Venus, below, are considered to be feminine and are referred to as the "inferior" or lower planets in older astrological manuals. Mars, Jupiter, and Saturn, the "superior" or upper planets, being more distant from the earth, are considered masculine. To confuse the modern reader, the lower, feminine planets are sometimes referred to collectively as "Moon" while the upper, masculine planets are collectively the "Sun." This Moon and Sun, it turns out, have very much the same characteristics of the Chinese yin and yang.



([illustration credit 12](#))

5. **Mars.** As we take another step, we meet the fierce, hot-tempered Mars. The realm of this warrior in the macrocosm is bounded by the visible red planet, which takes two years to pass the twelve regions of the zodiac. On earth, he manifests himself in the color red, in heat, in aggression, in wild and fierce animals, in thorns and thistles, and in iron and rust. In the soul, he has all the qualities that one attributes to a warrior. In the body, he drives the blood into circulation, forging the veins and arteries as channels. The Martian forces enter the body where the Adam's apple is—he is responsible

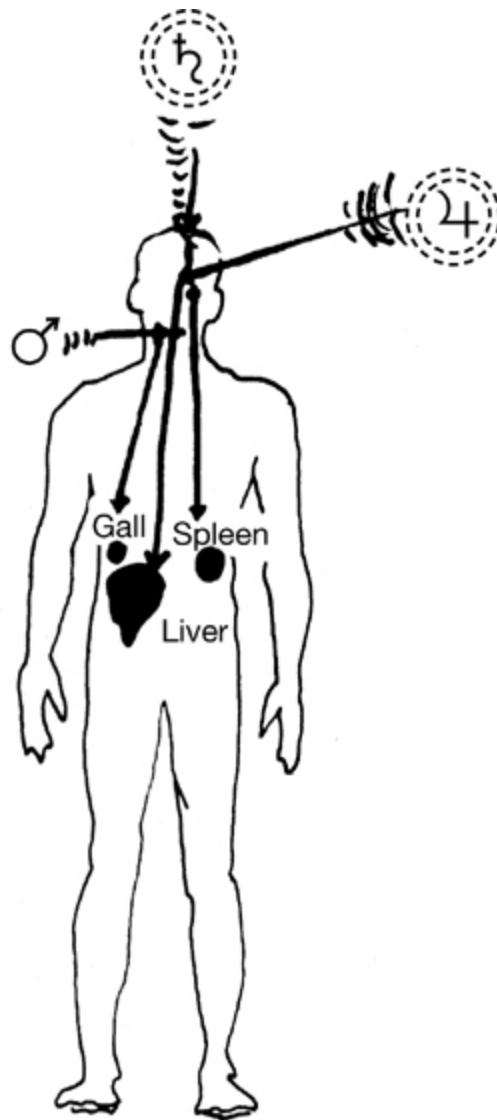
for speech, just as Venus is responsible for hearing. In the gall bladder, deep in the unconscious of the body (not semiconscious like the heart, genitals, lungs, or brain), he forms his specific organ. Martian diseases are stinging pains, fevers, infections, and gall trouble.

6. Jupiter. Even deeper (or farther out) is the realm of Jupiter, who enters the body between the eyebrows, at the place where the third eye is said to be. He radiates throughout the body, clothing the skeleton with muscle tissue and finally coming to rest in the liver. In the soul, the Jupiter force manifests itself as joviality (from the Latin *Jove*, or Jupiter), contentment, and the fullness of wisdom and riches. He is the wise old king whose battles have been won and who now shares his bounty with all. He is the god of autumn, of harvest, of beer and wine. In the night sky, his marking planet shines brightly and majestically, striding with dignified steps through the zodiac in a twelve-year time span—a span that has been incorporated into the East Asian animal zodiac. His color is yellow-orange, like the robes of Buddhist monks. His animals are characteristically the bear and elephant. His are all of the ripening fruits. His tree is the majestic oak where tribal Europeans held their *thing stead*, their wise councils, where the liver of a sacrifice was read as an oracle. “Jovial” diseases are the infirmities due to excess of meat and drink, such as gout and liver ailments.

7. Saturn. Before passing to the trans-Saturnian spheres, we come to the oldest of the gods, Saturn, the father of time (Chronos), the reaper with the scythe as well as the sower with a sack full of seed. His festival is celebrated in the dead of each winter when he appears as Santa Claus, Old Saint Nick, or Father Frost. In the macrocosm, his sphere is indicated by the farthest visible planet, which hobbles past the houses of the zodiac, taking a long thirty years. Saturn is the threshold to the beyond. He carries with him the seeds of new incarnations. His signatures on earth are cold, dead winter and dry,

leafless branches, but also pine trees and the warmth and shelter they may afford. His color is deep blue, the color of the sky, of the “wild blue yonder.” His mood is melancholy, or the “blues.” His plants are bitter and have blue flowers, such as chicory and forget-me-not, or they are dark like pine forests or gray like beeches or the sage brush of the dry steppes of the far west. His metal is lead. Saturnian force enters the body at the hair-whorl at the back of the head; it radiates through the body creating the bones—the heaviest, most durable, and innermost body parts—and comes to rest in the spleen. Saturnian illnesses are the decrepitude of old age, sclerosis, senility, constipation, bone disease, melancholia, and “having a spleen” (being eccentric). Saturnian blue flowering plants like comfrey are the best healers of broken bones.

For the most part we live on the surface of the phenomena, accepting what has been socioculturally defined as the “real” world, as *the* reality. But if we want to understand the true nature of the grand mystery of our being, we have to grow more profound. We have to grow up and down, like a tree sending its roots into the depths and it branches toward the heavens. The seven planetary spheres represent, in colorful imagery, the steps that “initiates” take to descend (or ascend—whichever term one might prefer) into the depth of the universe and of the soul. The problem for us modern individuals is that as soon as we leave the causal, rational, empirical plane of consciousness, we lose consciousness altogether to the point that some say there is nothing more “beyond.” Initiates, however, can stay “awake” while sleeping. They can go up and down that ladder in deep meditation. In doing this, certain thresholds are passed.



Points of entry and organs of culmination of the superior planets

([illustration credit 13](#))

First is the *Gateway of the Moon*, which is the gateway to normal sleep. If one passes consciously through that door, one perceives the “elemental world,” the magic world of etheric forces, revealing themselves as dwarfs, gnomes, leprechauns, water people, fairies, angels, demons, and devils—beings without a physical body but with an etheric body and, perhaps, also an astral body. These creatures make up the inside dimension of what appears to us as the

world of facts and external phenomena. In this realm, Indians of the New World beheld the spirits of animals, the “animal bosses,” who revealed to them secret knowledge, such as where to find game or how to discover the healing virtues of plants. This is the world of the witches’ Sabbath, where rites of fertility and growing vegetation were celebrated in the presence of the ancient horned god. Psychotropic plants, those with a lunar, mercurial, or venereal signature, can propel the user into this realm—a realm not without danger for the uninitiated. The old Rosicrucians called this level of consciousness, beyond the “normal” consciousness, the *plane of imagination*. The worlds experienced here do not fit into the Procrustean bed⁴ of logic and reason. They have to be presented as picture images; they have to be related to with songs, chants, and spells; they have to be remembered with symbols, colors, and amulets; they have to be told about with legend, fairy tales, or poetry! Few people ever penetrate consciously into this wondrous world—and many of those who do are touched by some form of genius, madness, or lunacy.

There is a level deeper than this, entered by the *Gateway of the Sun*. Just as the sun is located farther out in space than the moon, so is this level more profound than the lunar level. Normally, this is the level of dreamless sleep, but for those unusual human beings who can retain consciousness of spirit, it is the world of the gods that stands behind the elemental phenomena. It is the realm of the great harmony, of the music of the spheres (Kepler), where one hears Lord Krishna’s flute in blissful clarity. Here is where the “Sun sounds in tumultuous thunder” (Goethe’s *Faust*). On this level of being—deep, deep inside—the initiate, after the preparation of many lifetimes and many austerities, can talk to the pure, luminous spirits (*devas*) of the plants—much as one would converse with a good, wise, respected elder. Only the purest of souls can do this: for the soul is like a watery mirror in which the plant devas reflect themselves and communicate their harmonious essence to the seeker. From this fountain the greatest of the wortcunners—Caraka, Weleda, Shennong, and perhaps Hildegard von Bingen and Paracelsus—drew their knowledge of healing herbs. The old Rosicrucians called this

the *plane of inspiration*. Great composers such as Bach and Beethoven listened into the beyond and brought back their harmonious inspiration from this sphere, sharing it with us common folk; indeed, all great culture-generative ideas derive from this “higher ground.”

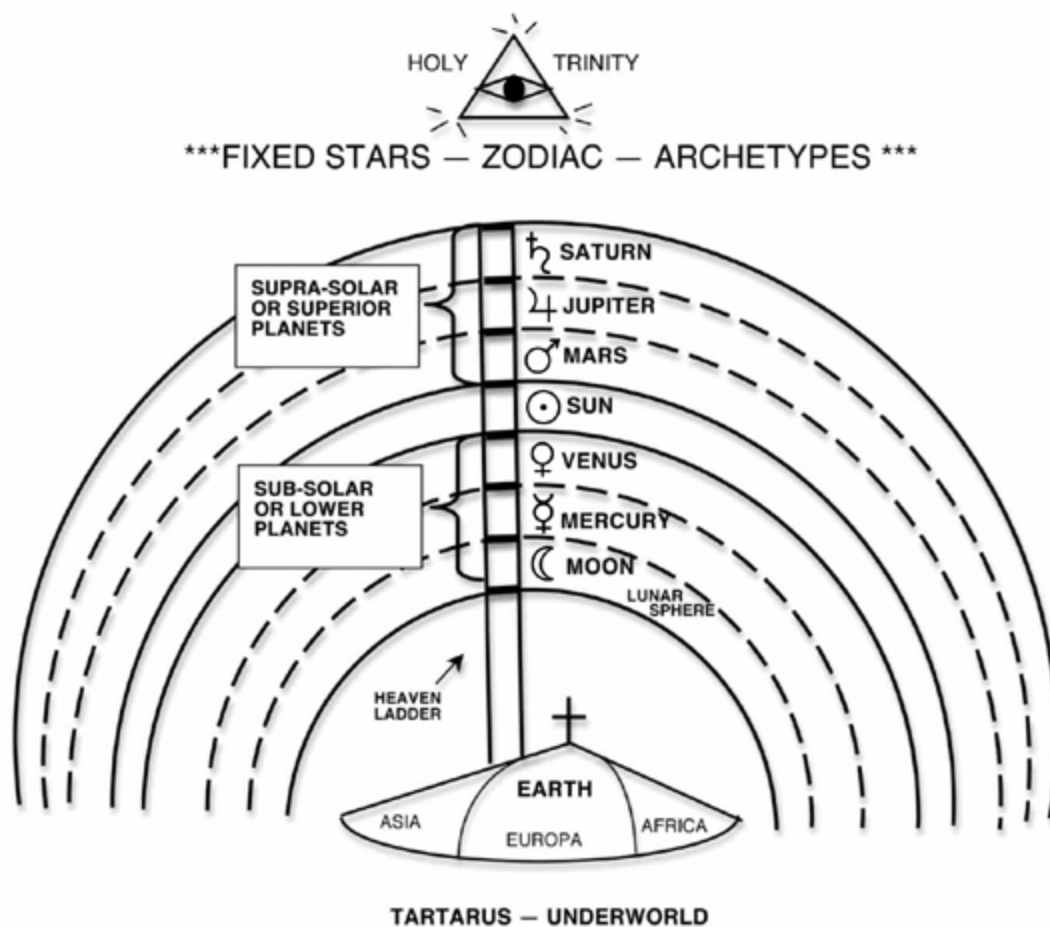
Another threshold is reached when one passes the sphere of the grim reaper Saturn: the *Door of Death*. On this plane, the initiate can talk with the very spirit of the stone. Here is the gateway to the archetypes, to the pleroma, the void, the *Arupa Devachan*, or Nirvana: space, time, form, concept, self, other—all vanish. Of those whose spirit reaches this stage, Jesus says, “They will not taste death.” This is the treasured philosopher’s stone of the alchemists. Ideally, the Hindu sannyasin, dressed in the red/orange of the flames of the funeral pyre and dead to Death, have passed this threshold: their very presence is a blessing to all creatures. One silently sits near such a one for a *darshan*, “a glimpse of Truth.”

The best herbalists are those to whom the Gateway of the Sun stands open, whose wings have not been scorched like those of ancient Icarus. Psychedelic drugs will not lead there, but rather long preparation and cleansing of the soul, fasting, mindfulness, and compassion, as Sakyamuni and Jesus have taught us. Ordinary shamans and herbalists, on the other hand, are at home in the elemental world, where elemental and animal spirits help them to know the secret sympathies and magical connections of the things of this earth. Normal, “deadhead” intellectual scientists might be honest, knowledgeable botanists or biologists; they might know the number of stamens of the Amaryllidaceae, the chemical formula of methyl salicylate or cyanogenetic glycosides, or the steps of mitosis and meiosis, but wortcunners they are not.

From the viewpoint of the Renaissance scholars, everything in our visible, phenomenal world is the result of the dynamic interaction and interpenetration of the seven planetary forces. To understand this in a buttercup, for example, one must be able to single out each planetary influence. The fleshy, herbaceous buttercup, growing in a swampy meadow, is definitely lunar, but the plasticity of its leaf forms as it shoots up in early spring reveals the hand of Mercury; in

the buttery yellow color of the flower is a tinge of Jupiter, and its acridity reveals the hidden hand of Mars. Of course, all of the other planets are there, too. But the question the herbalists ask themselves is which planet is predominant. To which planet did Nicholas Culpeper assign the buttercup?⁵

This little example should suffice to show that it is not a simple, logical task to assign planets to the plants. It is, rather, the faculty of active imagination (not fantasy) that is called upon. It is not a matter of simply looking up the correlations on a printed chart.



The planetary spheres of the Renaissance cosmology

([illustration credit 14](#))

Planets and Plants

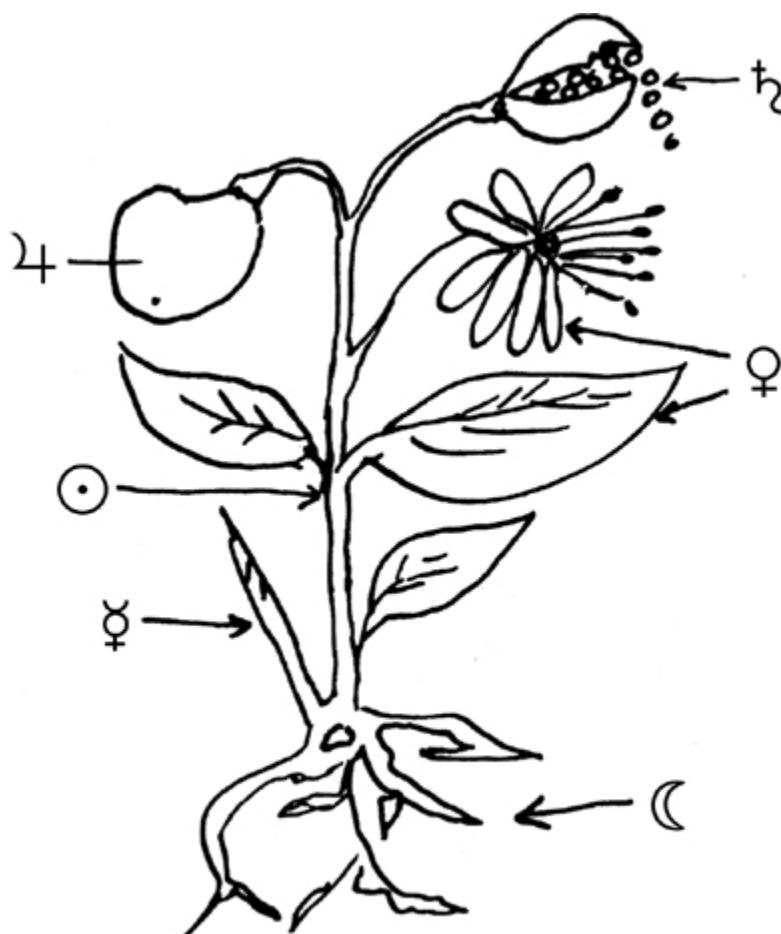
Here we allow ourselves to present a rather general tentative scheme for identifying the planets in the plants:

- **Moon.** The moon has to do with germination and sprouting as well as with fermenting and decaying processes in vegetation. Creepers with watery, bloated fruits such as cucumbers and melons bear a lunar signature, as do juicy plants with milky sap, such as poppies and lettuce. Lunar plants are often poisonous or have a psychotropic effect. Lunar flowers, some of which bloom at night, have petals ranging from pale pastels to violet.
- **Mercury.** This planet is responsible for fast growth, the shooting up of shoots, and the metamorphosis during growth. One cannot talk of a mercurial color, as such, but rather a sheen, as found when glancing over a young wheat field. Mercurial plants frequently contain slimy substances, such as aloe vera, jewelweed, or dog's mercury. They are generally herbaceous or exist as creepers and vines. Mercury, the physician of the gods, is lord of the medical plants in general.
- **Venus.** This goddess gives vegetation its green coat. Venus plants flower in delicate colors (white, greenish, and pink) and have a pleasant fragrance. The effect of Venus plants is a pleasantly cooling one. Aphrodisiacs belong to this group.
- **Sun.** The sun gives plants their vertical, upright tendency, literally pulling the young vegetation out of the earth in the spring. Plants that grow rhythmically and harmoniously and whose taste is robust but pleasant, like the sweet sourness of apples, belong to the sun. The flowers are white to golden yellow, and some, like sunflower and chicory, turn their head with the sun.
- **Mars.** This planet is the lord of red-flowering plants, of those with thorns and pricks, of taproots, and of flower pollen. The taste of Martian plants is hot, spicy, and sharp.
- **Jupiter.** Jupiter is responsible for the ripening of fruits. To him belong aromatic plants and those that have a good, sweet taste.

Oil-containing plants, like the olive, walnut, and rape, belong to this planet. The color of Jovial flowers is yellow/orange to royal purple. Slow-growing, stately trees belong to this king.

- **Saturn.** Saturn desiccates the plants and lets them die off but also lets them form seeds. Slow-growing plants, those of somber gray hues and blue flowers, those with bitter tastes, and those having pitch and resin belong to this planet.⁶

The forces of the planets, as they affect the mineral, plant, animal, and human kingdoms, can be called astral (Greek *Aster* = “star”) influences (Latin *in-fluence* = “to flow into”).⁷ Within the single plant, the moon forces have the most affinity with the roots; Mercury forces with the sprouts and budding leaves; and Venus forces with leaves and flower petals. The sun gives the vertical tendency to the stems; Mars develops the stamen and pollen; Jupiter encourages the fruit to grow; and Saturn creates the seeds.



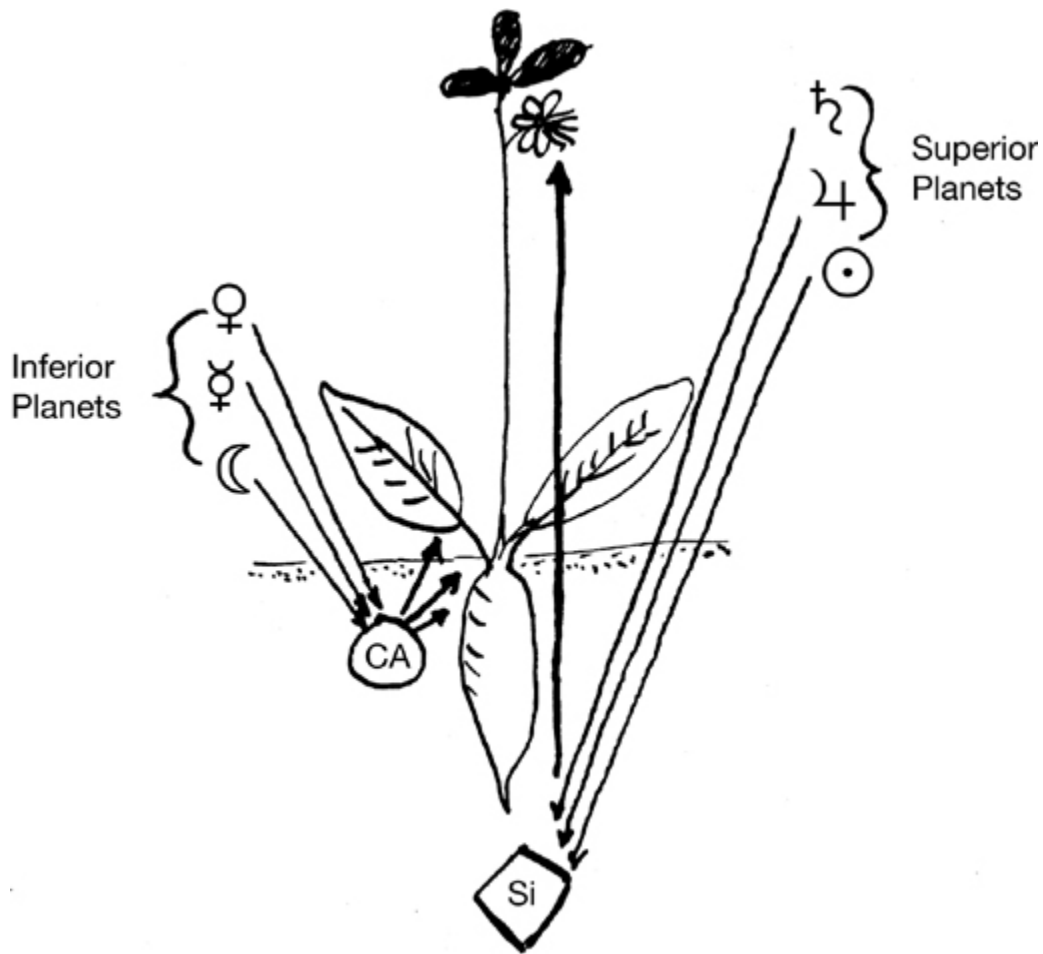
Planetary influences on the individual plant

([illustration credit 15](#))

The inferior planets work on the plant through the moist atmosphere, the humus, and calcium in the soil. The superior planets ray into the mineral substrata of the earth, using silicon “like a reflector” to ray upward into the plant, exhausting themselves in the flowering, fruiting, and seeding processes at the upper periphery of the plant.⁸

In human beings and animals, as we have seen, the superior planets radiate into the head region, whereas the inferior planets ray into the lower part of the body. In so doing, they exhaust themselves in whatever particular organ is assigned to them (i.e., moon = brain, Mercury = lungs, Venus = kidneys, etc.). Using this

line of association, it becomes possible to assign a particular plant or part of the plant to its corresponding part of the human body.



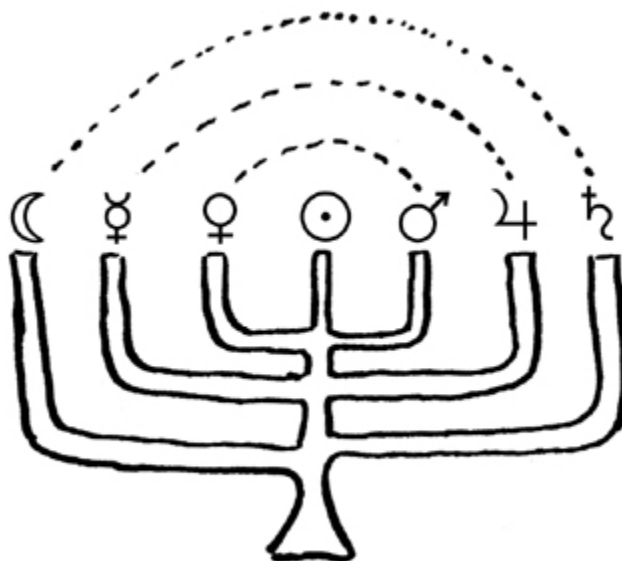
Planetary influences, calcium and silicon

([illustration credit 16](#))

Some Other Planetary Relations

The picture we have so far is that of a layer cake of interpenetrating influences leading from Saturn down to the moon. But the Renaissance philosophers did not stop here. They computed other relations. Sets of polar opposition exist among the planets. There is, for example, a polarity of the upper and lower ranges of the astral

regions—the relationship of the moon and Saturn. They appear in folk custom as the toddling infant New Year and the doddering, geriatric old year. The special relationship of lovers exists between Mars and Venus: one is fierce, the other mild; one is active, the other receptive. Jupiter and Mercury form another binary pair. In traditional European puppet theater, they appear as the king and his jester. One is characterized by justice and stability; the other by roguery and flexibility. The sun forms the middle axis, the harmonizing pole of these polarities. Herbalists use these oppositions, as we shall see, to cure a disease with the opposite planet allopathically just as they cure homeopathically using the same planet.



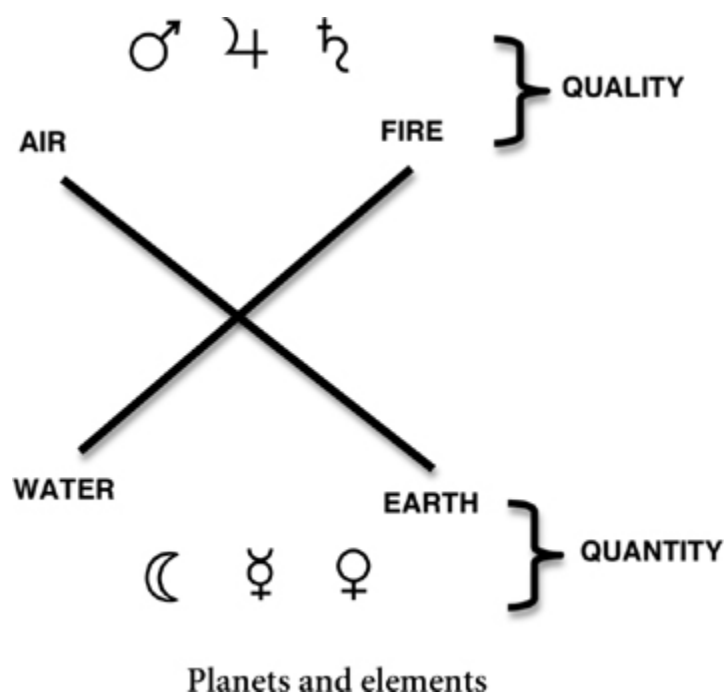
The pairing of the planets

([illustration credit 17](#))

The Elements in Relation to the Planets

The seven planetary forces, being invisible as such, take hold of the four elements (earth, water, air, and fire) and become visible by imprinting and arranging the physiognomy of matter. Already the

pre-Socratic philosophers thought of the four elements more as formative forces (like etheric forces) than crude substances. Earth refers to a solidified state, characterized by being “dry” and “cold.” Water is a “cold” but “moist” fluid state of matter. Air is an even lighter and more mobile state, which is “moist” and “hot”; and Fire is “hot” and “dry” and highly mutable.



([illustration credit 18](#))

Generally, the superior planets have a relation to the imponderable elemental forces of air and fire, while the inferior planets relate to the ponderable (heavy, cold) elements of earth and water. On the plane of living imagination, the four elements appear to the eyes of the soul as elemental beings: gnomes (earth), nymphs (water), sylphs (air), and salamanders, or *vulcani* (fire).

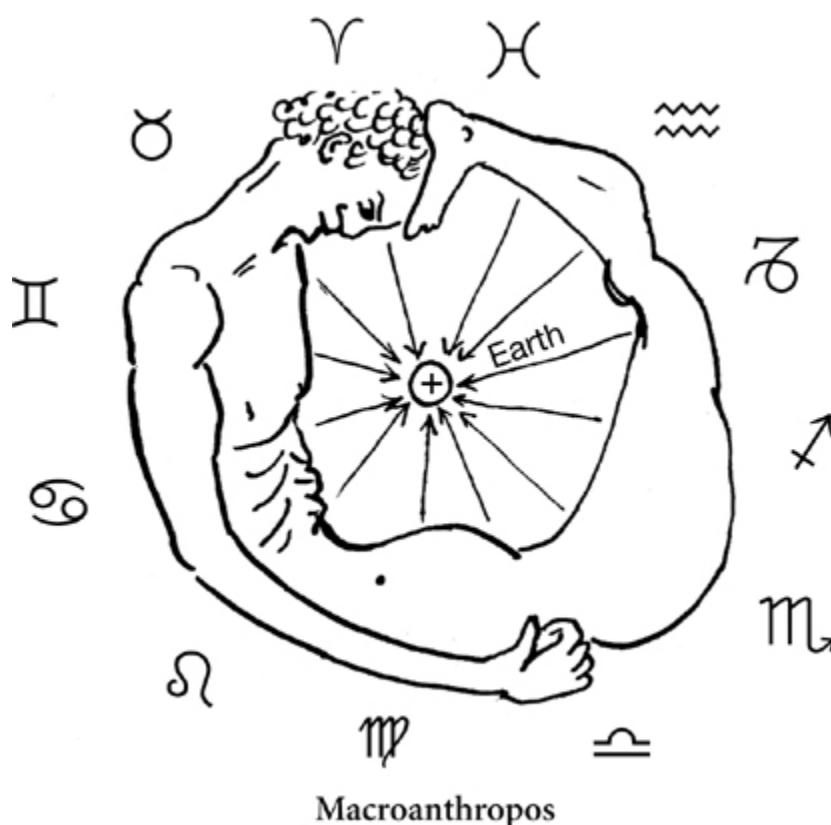
The table reveals some of the cross-correspondences possible:

Element	Quality	Humors	Planets	Elementals	Plant Parts	Season
Fire	hot, dry	yellow bile (choleric)	upper planets ("Sun")	salamanders	seeds	fall
Air	hot, moist	blood (sanguine)	upper	sylphs	fruits, flowers	summer
Water	cold, moist	phlegm (phlegmatic)	lower planets ("Moon")	undines	leaves, shoots	spring
Earth	cold, dry	black bile (melancholic)	lower	gnomes	roots	winter

Relation of the Planets to the Zodiac

The path of the planets through the night sky follows within 15 degrees the path traversed by the sun (ecliptic). This path has a continuous field of fixed stars as a background. These fixed stars serve as markers to the observer of the relative position of the sun or the other wandering planets at any certain time. The sun travels this ribbon, from its highest to its lowest point and back, in 365 days. The moon will have traveled the same route twelve times (twelve full moons) during this time.⁹ The Babylonians, avid observers of the script of the heavens, thus divided the route into twelve stations, which became the twelve signs of the zodiac (animal circle). It was noted that depending on the region of the zodiac in which the sun was to be found, the quality of the heat would be different. (It is, for example, hotter in Leo than in Capricorn.) Thus it was surmised that each region of the zodiac contained energies that could affect and modify the sun, moon, and other planets. These twelve power-throbbing stations were seen imaginatively as the gigantic body of the archetypal, primordial being—the Macroanthropos, the *Urbild* of every human being on earth. Each region corresponds to a part of the body, as illustrated in the figure.

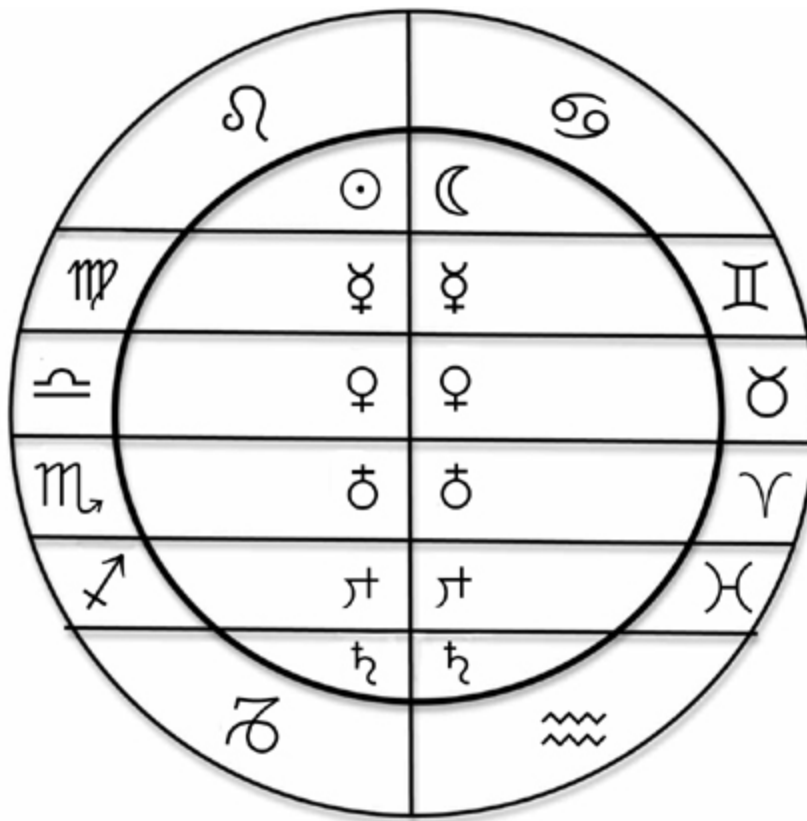
Archetypal, creative forces radiate from each region of the zodiac. In human beings and animals, Aries works as a formative force on the head, Taurus works into neck and shoulders, Gemini into the arms, and so forth. In the same way, in the animal kingdom, Aries forces bring about fowl and feathered creatures, and cows and other bovines receive their impulses from the region of Virgo. Predating felines appear from the region of Leo, and invertebrates are connected with Scorpio.¹⁰ Even to this day, anthroposophic farmers, guided by Maria Thun, believe that different families of plants receive their original impulses from various regions of the zodiac and will plant or sow when the moon is in a certain sign or burn and scatter the ashes of weeds in their appropriate sign.¹¹



([illustration credit 19](#))

The planets are involved in this scheme. Each of the twelve regions is a house, mansion, or refuge of the traveling planetary gods. When a planet is in its own house, Renaissance scholars

taught, its influence is stronger. When opposite its own house, its influence will diminish.



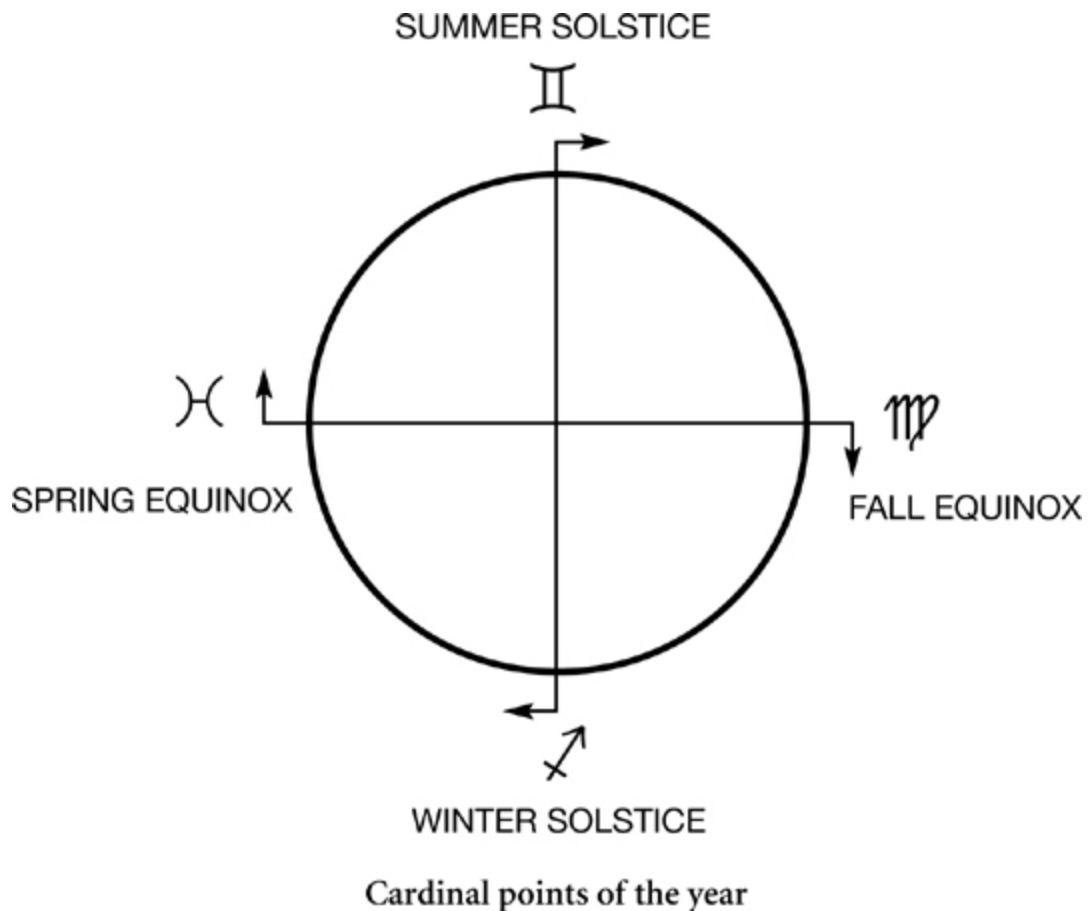
Planetary houses

([illustration credit 20](#))

Planet	Houses
Sun	Leo
Moon	Cancer
Mercury	Virgo, Gemini
Venus	Libra, Taurus
Mars	Scorpio, Aries
Jupiter	Sagittarius, Pisces
Saturn	Capricorn, Aquarius

The system of planetary houses is based on old Babylonian starcraft, reflecting the state of the heavens as seen four to five thousand years ago. At this time, Leo and Cancer were at the peak of the zodiac (today it is Taurus and Gemini), while Capricorn and Aquarius, weighted down by the house of lead-heavy Saturn, were the lowest constellations in the zodiac. A middle line drawn from the highest down to the lowest point of the zodiac made up the “cosmic axis,” the trunk of the cosmic tree, upon whose branches, so to speak, the stars were hung like ornaments on the Christmas tree. The movable planets were like birds fluttering from limb to limb, each, however, having a nest (house) on one or two of the branches. In the course of millennia, the great cosmic tree tilted ever more sideways. This was due to the progression of the vernal equinox, the location point of the springtime sun in the zodiac, when day and night are of equal length. This spring point gradually moves forward, changing to a new sign every two thousand years. By the time of the Renaissance, the Twins (Gemini) marked the zenith, and the Archer (Sagittarius) was at the bottom (nadir): Pisces had become the spring point and Virgo the fall equinox.

Even to this day the houses play an important part in the therapeutic efforts of some herbalists. If a patient complains of bad kidneys, the herbalist will know that kidneys are in the zone of Libra, where Venus has one of her houses. Birch trees are assigned to Venus; thus a tea of birch leaves will be just right to flush the kidneys. Another patient might come with a chest cold. The chest is the zone of the Crab (Cancer), which is the house of the moon. A lunar plant should be used. An onion-pack might be the right choice, as the onion belongs to the moon.

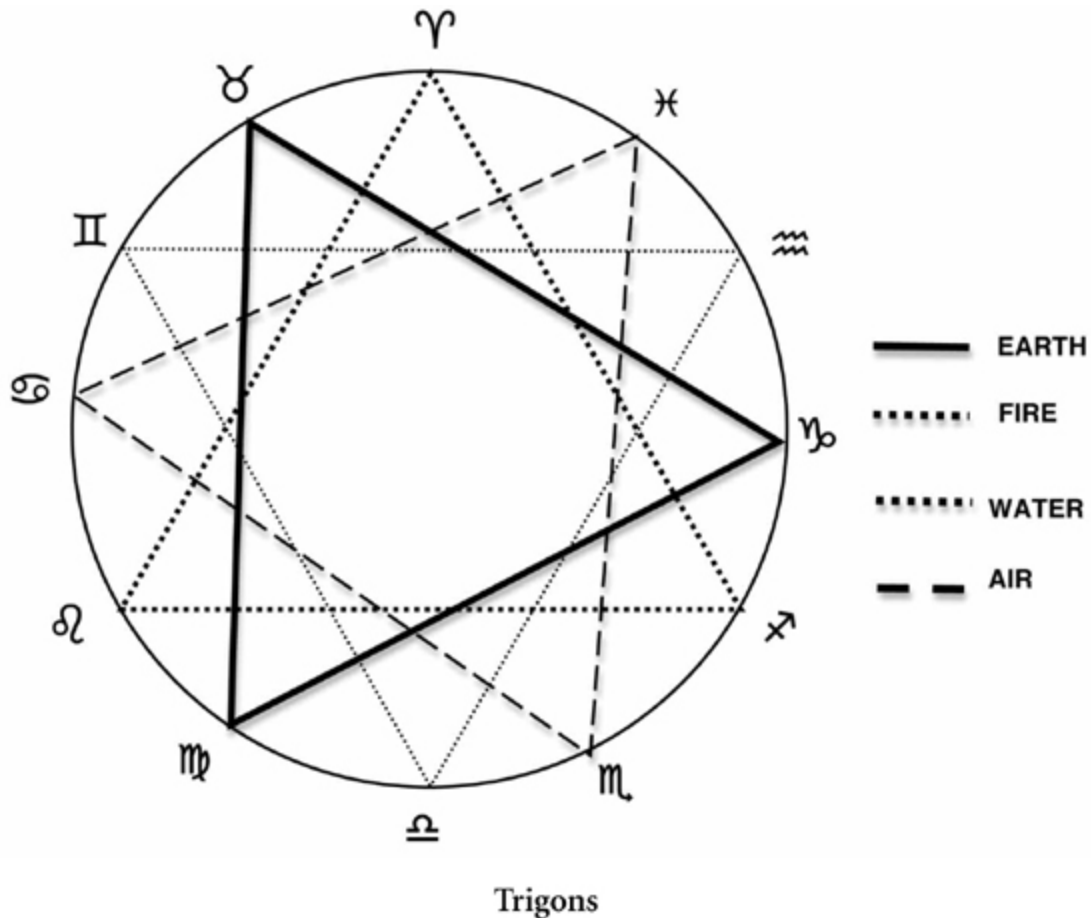


([illustration credit 21](#))

Such thinking and associating, typical in herb craft, can be complicated and permuted many times. For example, the relation of the four elements to the zodiac also enters consideration. The Renaissance assigned the elements to the zodiac signs in the following way:

These trigonal positions (as shown in the illustration) play an important part in biodynamic agriculture and, consequently, in anthroposophic herbal medicine.¹² The sowing, planting, and harvesting of medicinal herbs is largely determined by whether the moon is in an earth, air, water, or fire sign (or trigon). A medicinal root, such as burdock or comfrey, might be planted and harvested when the moon is in Virgo, Capricorn, or Taurus, and the resultant medical preparation might even be given when the moon is again in an earth sign. Herbal blossoms, such as chamomile, hops, or mullein

flowers, should be collected on days when the moon is in the air signs. We see how many possibilities open up to the herbalist in this way.



([illustration credit 22](#))

The theory of Copernicus, which ripped the earth out of the center of the universe; the mathematics of Kepler, Newton, and others; and, later on, the discoveries of “planets” beyond Saturn, not visible to the naked eye, tore down the edifice of the Renaissance worldview. But not only that: the astrological system was difficult and full of contradictions, to say the least, for those trained in the logic of the scientific method. This prepositivistic worldview, where everything and anything is interconnected and secret or overt sympathies and correspondences bind all things together in obscure, magical ways, was an annoyance to practical minded men. It had to

give way to the new reality of an objective universe of things that are not magically connected but connected by concrete, logically deducible laws of cause and effect. The cumbersome system had to go if functional machines and efficient commerce were to take the lead.

Yet there are some—obscure herbalists among them—who, to some degree or another, have hung on to the vision that once reigned supreme. Causality, formal logic, and quantitative sense data are all right for mundane reality. But is not reality much more grandiose than this? How well does our modern worldview do when it comes to the twilight zone of our being—to the realms of infirmity, death, love, emotions, dreams, and healing? Who are the men who turned astrology into astronomy, alchemy into chemistry, soul-wisdom into psychology, and herb lore into botany? Brave, rational men, to be sure—but they are simplifiers! They have reduced the rainbow colors of nature, the gods, the spirits, and the imagination into the black and white of the rigid Puritanism of the printed page. They have taken away extra dimensions and are now satisfied at having tamed the universe. They are the apprentices who found the odd, bumbling masters too timid and set about to create a “brave new world.”

Planetary Rules of Herbal Medicine

Many herbalists just brew up the right kind of herb for the corresponding ill and do not bother much with the planets. But most herbalists make at least some reference to the planets. Some, like the Dutch wise woman Mellie Uyldert, have effectively and imaginatively included the newly discovered planets, Uranus, Neptune, and Pluto.¹³ Others, like Arthur Hermes, have kept the traditional seven planets and consider the trans-Saturnian bodies to be cosmic reflections of the demonic regions into which humanity is venturing: Uranus reflects the realm of brute machinery; Neptune, the realm of that deadly force called electricity; and Pluto—god of the underworld—is the realm of life-annihilating nuclear energy

(plutonium!). He points out that these “planets” were discovered in the heavens about the time that the steam engine, electricity, and atomic energy were discovered, each in their turn. Is it not the ancient law of the universe, as formulated by Hermes Trismegistus (“As above, so below”), that for every new form of consciousness, a new “star” appears in the sky? (What, dear reader, is the meaning of the “black holes”?)

Astrologically oriented herbalists cast the horoscope of the patient, noting which planets are strong, which are weak, which are ascending or descending, and how the houses are occupied. Then they prescribe the proper plants accordingly:

1. When a part of the body or a specific organ is weak, a plant that bears the signature of the same planet is used to support it (e.g., horsetail, a Saturnian plant, for weak bones; dandelion, a Jupiter plant, for the liver, etc.).
2. When an organ is overactive, excited, “speedy,” or has been poisoned, an opposite planet is to be used as an antidote (e.g., a hot, Martian plant for a Venus disease; Jupiter is countered by Mercury; Saturn is countered by the moon; the upper planets [“Sun”] are countered by the lower planets [“Moon”]).

Ailments of the “Sun” are dry, hot, and sclerotic, while those of the “Moon” are moist and festering. Doctors in the Middle Ages liked to set the two “evil” planets—hot, excited Mars and cold, rigid Saturn—against each other. We see that herbs are used sympathetically (homeopathically—the illness is cured by the same planet that caused it) or antipathetically (allopathically—it is healed by an opposite planet).

The Right Times to Gather and Prepare Herbs

The early Rosicrucian philosophers, intent on studying the multifold biological and cosmic rhythms, taught that for any medicine to be effective, it must be picked and prepared at the optimal time. They were not the first to think so; the ancient Babylonians had picked

healing herbs at the right planetary hour. Christian herbalists quoted the wisest of the wise, King Solomon, to support their practice: “To everything there is a season, and a time to every purpose under the heaven” (Ecclesiastes 3:1). The right time is the right season of the year, the right lunation (phase, sign, or node), the right day of the week, and the right planetary hour.

The lunar rhythm is very important since it plays into the biochemistry of the plant, as well as the biorhythmic curves and cycles that mark a sickness. On gathering plants, Maurice Mességué’s father told him, “My boy, remember: never when there is a full moon; moonlight saps their strength. For plants to be the very best, they need plenty of sunshine and very little moonlight.”¹⁴

Swiss peasants dig medicinal roots and tubers when the moon is descending—going from the highest point in the zodiac (Gemini) down to the lowest (Sagittarius). Leaves, stems, and flowers are gathered, on the other hand, as the moon ascends from the lowest (southern tropic) to the highest (northern tropic) sign in the sky. Very common in the Eurasian herbalist’s tradition is the practice of following the moon’s phases: parts growing above the ground are picked in the first quarter, while underground stems, roots, and storage tubers are picked in the last quarter of the waning moon, or the new moon. As we have seen, the sign the moon is in when gathering or preparing botanical matter is important.

Some wortcunners put emphasis on the time when the ruling planet is in its own house. The medicine is weakened otherwise and nearly ineffective if the planet is in an antagonistic house. The houses of the moon and the houses of Saturn are antagonistic, as are the houses of Mercury and Jupiter and also those of Mars and Venus. Following this line of thought, the optimal time for picking Saturnian and Jovial plants arrives at intervals of several years because Saturn and Jupiter are slow, visiting their houses relatively seldom.

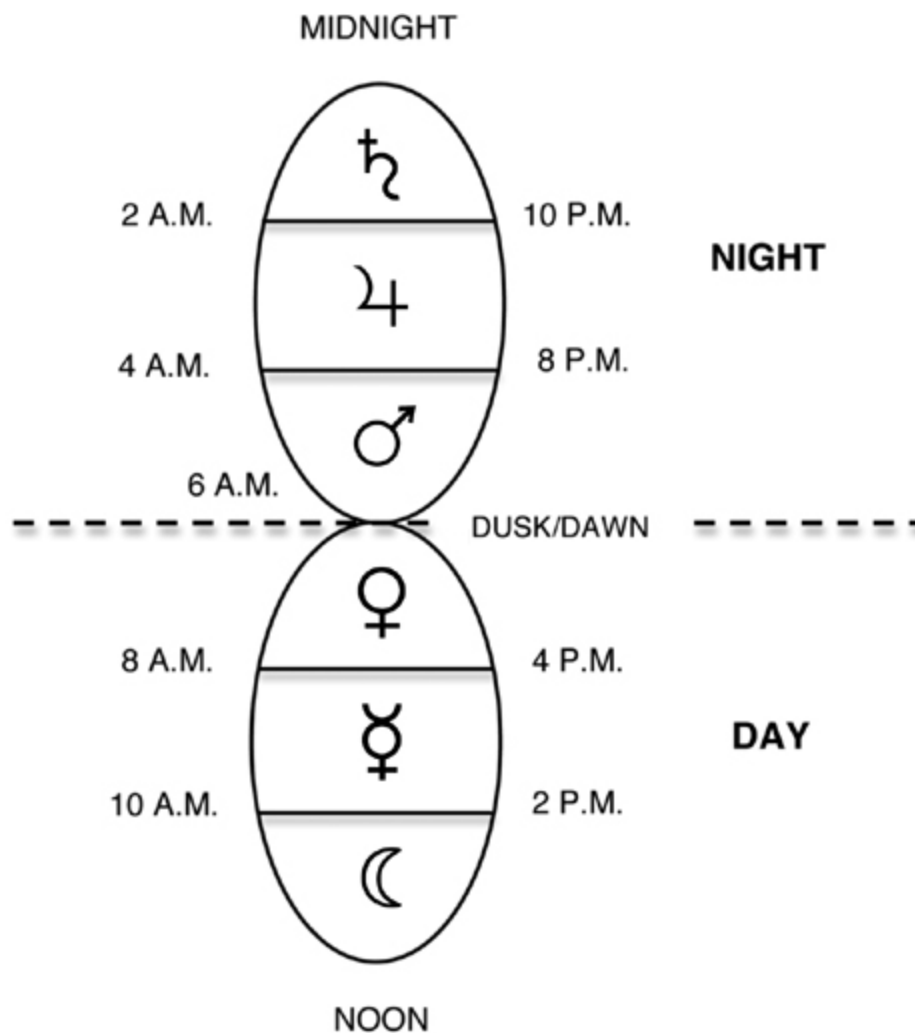
Paracelsus picked the leaves of one of his very favorites, the Christmas rose (black hellebore; *Helleborus niger*), a Saturnian plant that rouses the “black bile,” on Saturdays at sunset when Saturn was in a good house and preferably high in the sky. Like this great

doctor, Arthur Hermes picked all of his herbs on the day of the week ruled by that planet. Thus, yellow flag (iris), a plant belonging to the moon, would be picked Monday. Nettles, having the signature of Mars, would be gathered on Tuesday. Mercurial hazelnut is picked on Wednesday, venereal lady's mantle on Friday, Saturnian hound's-tongue on Saturday, and so on.

Rulers of the Days of the Week	
Moon	Monday
Mars	Tuesday (Tius)
Mercury	Wednesday (Woden, Odin)
Jupiter	Thursday (Thunar, Thor)
Venus	Friday (Freya)
Saturn	Saturday
Sun	Sunday

Usually the day and its planetary ruler were the most important considerations for Arthur Hermes, along with picking in the morning or evening hours. Sometimes, however, he would specify the planetary hour, for each "hour" has its planetary ruler as well:

Rulers of the Hours of the Day	
Saturn hour	midnight
Jupiter hour	late at night, early after midnight
Mars hour	before and after dusk
Sun hour	dusk and dawn
Venus hour	after sunrise/before sunset
Mercury hour	forenoon, early afternoon
Moon hour	midday



Planetary hours (according to Arthur Hermes)

([illustration credit 23](#))

The planetary hour as calculated by early Rosicrucians was a bit different. The first daylight hour of Sunday was said to belong to the sun, the second hour of that day to Venus, the third to Mercury, the fourth to the moon, the fifth to Saturn, the sixth to Jupiter, the seventh to Mars, the eighth again to the Sun, and so on in a continuous rhythm up and down the planetary scale of seven planets. If one has the patience to count it out, then the first daylight hour of Monday will fall under the rule of the moon, the first daylight hour of Tuesday under the rule of Mars, and so on until it is Sunday again. These hours, it must be stated, are not of

equal length like the hours ground out by our mechanical watches. They are divided into twelve night hours (sunset to sunrise) and twelve daylight hours (sunrise to sunset). In this system, which was devised by the medieval monks whose duty it was to keep the prayer times and toll the church bells, the daylight hours are long in the summer and short in the winter. The nighttime hours become ever longer toward the winter solstice and ever shorter toward the summer solstice. Only twice a year, at the spring or fall equinox, were the hours all exactly equal in length.

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CHAPTER FOUR

*The Nature of Plants and
Plant Medicines*



Let them save this man
from Consumption sent-by-the-gods,
these plants, fathered by Heaven, mothered by Earth,
whose root is the primal cosmic ocean.

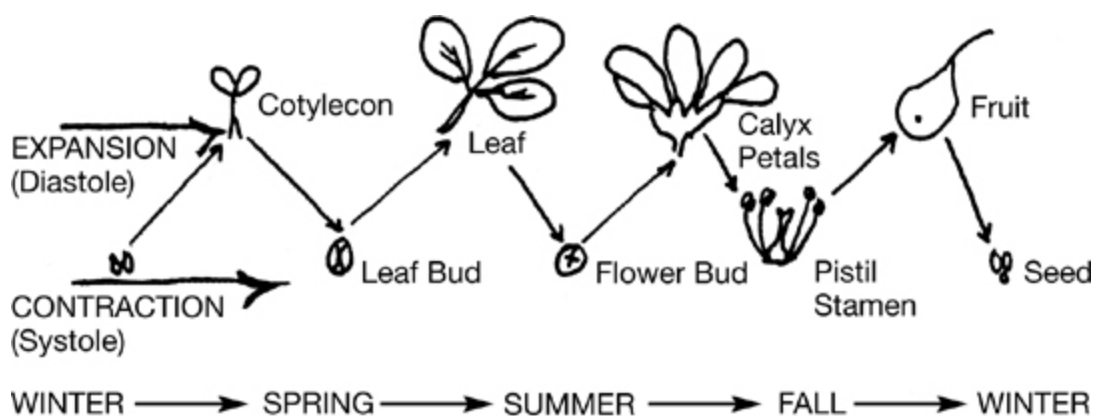
—*Atharva Veda* 8:7:2



Plants are basically invisible! This is a startling statement and one that is obvious nonsense to any sensible, rational human being. But the esotericist would point out that the thing we call a plant is only the mineral aspect revealing itself to our external senses. We do *not* see directly the life forces that make the seed germinate and let the plant grow, mature, and flower. Nor do we see the soul (astrality) or the spirit of the plant. They remain forever removed from the external world and do not incarnate. To really see a plant, one must be clairvoyant. The great poet and scientist Johann Wolfgang von Goethe tried to formulate this in a way acceptable to the contemporary mentality. He called the plant a “sensual-supersensual” being. In his study of plant metamorphosis, he developed the idea that every visible plant is a play of the archetypal plant, the *Urpflanze*.¹

The plant is not a mere thing like an inanimate or manufactured object. The plant is a living process that is in a constant state of becoming, unfolding and originating. In so doing, it makes dynamic use of substances (elements), leaving in the wake of its growth finished forms—stalks, branches, leaves, blossoms—that bear the mark of life energy having passed through. Once this etheric energy has passed through, the formed substance is given back over to the laws of physical matter, begins to disintegrate, and returns to the soil and air. The plant thus tiptoes through the world of physical matter, touching ever so lightly into incarnation. The steps of such plant incarnations are marked by rhythmical, seasonal changes—tied to solar, lunar, and cosmic rhythms—involving the interplay of contraction and expansion, systole and diastole.

The unfolding begins with a seed—a tiny, hard, dry protein body. After the elements of water and warmth from the spring sun and spring rain awaken it, growth starts. But the seed does not just get bigger and bigger. Instead, after the initial swelling, it breaks apart. As its first metamorphosis, it expands its cotyledons into the light and sinks a root into the ground. Polarity—one of the signs of living processes! Then, in harmony with cosmic influences, it grows rhythmically, alternately drawing together to form bud or node and expanding into leaf and stalk. The repetitions are not mechanical or exact. Observe a typical herbaceous plant: the lower leaves are rounder, fuller, and closer to the elemental natures of water and earth. As it grows, the leaves become gradually more serrated and pointed. The ponderable substance seems to melt away as buds form anew in preparation for the next crescendo: the bursting open of the flower petals. Within the corolla, the pistil and stamens represent another contraction to be followed by the expansion of the ovary into the fruit and, finally, the contraction into the ovule. Once the seed is formed, the vitality of the visible plant has spent itself. Like Persephone, it must go into the earth again and, awaiting a new season, draw anew the life (etheric) energy from the earth and cosmos for the next cycle of manifestation. In this process, nowhere is the entire plant completely present at any one single time. Each time we look at a plant, we see only a part of it in actual manifestation.



Rhythm of expansion and contraction

([illustration credit 24](#))

For Goethe, the archetypal plant organ is basically the leaf, flat and open to the cosmos. It has no inner organs that would serve as anchoring places for an incarnated soul (astrality), as one finds in human beings or animals. The plant is open to the in-streaming cosmic impulses. They—planets, sun, moon, stars—are its organs, bringing about its rhythmic contractions (as in seed, bud, stamen, anther, pistil, ovule) and expansions (as in cotyledons, leaves, sepals, petals, fruit). Upon this archetypal theme, each plant family, and within them each individual species, plays and improvises in amazing variety. The mints, for instance, do not get excited about root or flower but spend themselves on fragrant leaves. The cucumber family, twisting over the ground like so many snakes, splurges on bloated, watery fruits. Others such as the mandrake have a thing for roots! Asters and sunflowers bundle their individual flowers into disks, reaching a new threshold of organization. Perennial plants like to linger, while some weeds and spring flowers are flighty and shy. Thus, the *Urpflanze*—the mother of all plants—plays out its myriad ideas and lets its imagination become visible in countless forms.

Plants are visible imaginations. Goethe insists that this archetype, real as it is, must be perceived by the faculty of imagination—by an artistic eye, so to speak, not just by clinical analysis. In the plant world—as well as in the world of insects, fish, birds, and mammals—nature says to us, “Hey, man, can you imagine this?” If you can’t imagine it, you might perceive it, but you won’t “see” it. With this in mind, we see that it is not so odd at all that herbalists and wortcunners are also masters of imagination, at home in fairy tale, folklore, dance, and song.

Human beings also have an archetypal form of their body/soul configuration. One of the differences is that the soul (sensing, feeling, desiring, consciousness, sympathies and antipathies, joy and pain) of human beings is incarnated into their physical/etheric organization, while for the plants it impinges from the outside onto the physical/etheric organism. Human beings do their playful

improvising in the realm of soul and spirit: there they can think, imagine, and dream up the most bizarre and wonderful forms. The plants, on the other hand, can do this within their physical/etheric bodies, creating even monstrous and weirdly shaped flowers, fruits, stems, or roots without any ill effect to themselves. In contrast, when a human being creates bizarre thyroids, gigantic livers, violet skin, strawberry noses, or any other distorting play on the archetypal form of his body, he or she is truly sick. Rudolf Steiner formulated this as, “What is beautiful in the plant is illness in the human being.” This, however, becomes a clue in the use of herbal medicine. It is a matter of finding the bizarre (but healthy) plant and bringing it into relation with the bizarre (sick) organ of the suffering human being. And the signatures, so herbalists tell us, are the clue.

Human Illness and Corresponding Plants

Once again, let us look at the intuition of the archaic philosophers: originally creation was One. This unity divided itself into the kingdoms of nature: human beings and animals on one side, plants and minerals on the other side. Human beings and animals are more thoroughly incarnated because they have brought their soul with them into their physical existence. The soul in existence (Latin *ex* + *sistere* = “standing outside”) is a soul standing outside of the original wholeness and thus is not in eternal bliss but in a state of dukka (“suffering”). Plants have kept their “souls” out of existence—insofar as scientists are correct in asserting that plants have no soul. The soul of vegetation rests in essence (oneness, the void, heaven). Plants have retained in a state of wholeness (health) that which human beings have taken into existence. Thus, plants cannot really become sick or suffer in the way human beings (or animals) do.

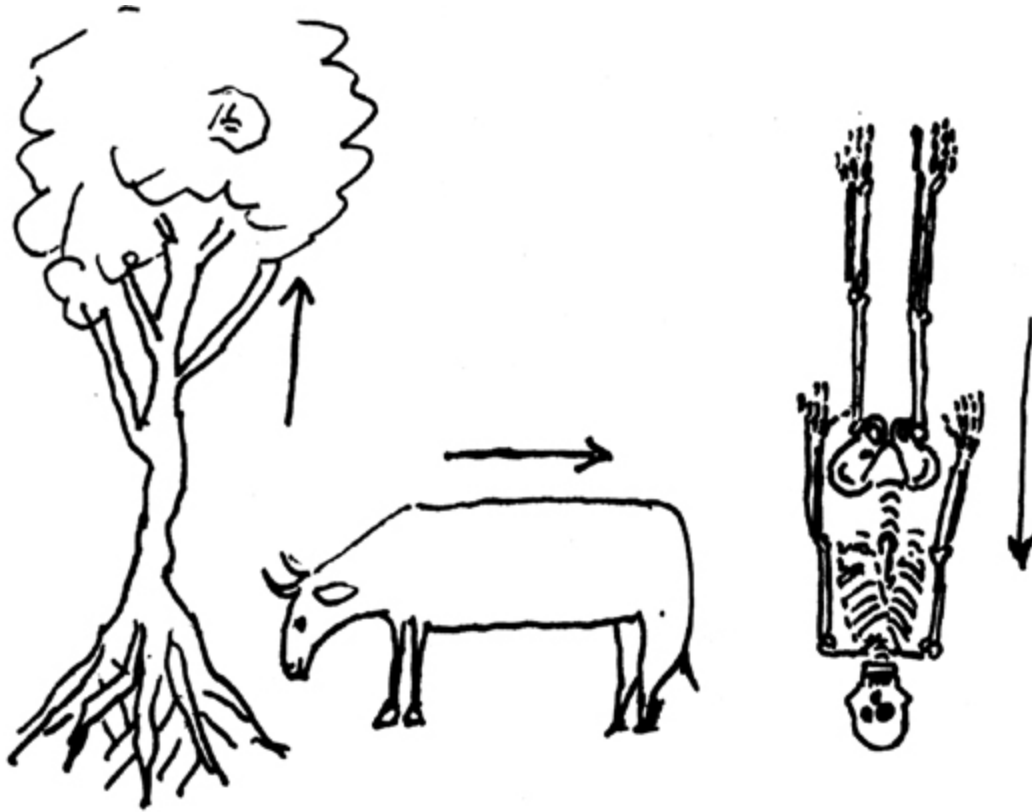
Astrality works externally upon the physical plant, but it works internally in the human being. Since plant astrality cradles in the heavens, nonincarnated, its ordering and guiding influence upon the plant bodies is harmonious. It is different for mankind! Here,

misguided astrality will eventually result in distortion of the physical/etheric organization. This is behind the biblical wisdom that sickness and death are the result of sin (from Old English *sunder* = “to separate”) or Buddha’s teachings that desire (astrality) is the cause of all suffering. Whether the cause of the illness has to be sought in previous lives or in this life; whether it comes from the inside as frustration, unfulfilled wishes, greed, anger, lust, and so on; whether it is projected by sorcerers and black magicians from the outside; whether it comes from parents in the form of family karma—all these considerations can be left aside for the moment. The fact is that the unguided astrality of the human creates the conditions and situations that result in suffering. Accidents, infections of germs, and epidemics are just the agents to carry this out. A healthy soul is not likely to become infected, and a watchful mind can avoid accidents quite well.

The relationship of the plant archetype to the human being has classically been represented by Plato, Hindus, Jews, Australian aborigines, and others in the image of an inverted tree whose roots are in the heavens. In their initiation rites, the aborigines plant a tree painted with human blood upside down in the ground. Hanging upside down on the World-Ash, Woden learned the secret of the runes. The trident of Shiva (which has been perverted into the pitchfork of the Christian devil) is the upside-down World Tree with its three roots. The Kabbalah knows of a Tree of Life rooted in heaven. Even the cross upon which Christ, the archetypal human being, was sacrificed can be seen as the tree with three roots extending into the width and breadth of heaven.

What is made visible in this universal symbol is that the human being has inverted his “proper” relationship to the universe. That is why Brahmans advise “uprooting the tree” in order to realign the members to their original position. The cosmic tree (the archetypal plant) is still rooted in the heavens. The animal stands halfway in between, and the human being has gained his “freedom” by turning his relationship with the heavens upside down. In that way, he is only conditionally part of the greater whole of the macrocosm. He has become—is becoming—a microcosm. His life habits and

rhythms, his state of being, might derive from the whole, but they have spun off: they have emancipated themselves. He can turn night into day, can freely play with his emotions and imaginations (“He can lie,” as Nietzsche aptly says), can become abnormal, can eat the wrong foods, can become sick, and so on. Animals have made that turn toward the microcosm only halfway. Insects and amphibians are still very macrocosmic, closer to plants in some respects. Mammals have internalized much of what is cosmic astrality and, hence, enjoy a greater degree of “freedom” than plants and lower animals; still guided by their instincts, however, they are by no means as liberated as the human being. However, human beings are never so totally independent that they can dispense with the macrocosm altogether. As free as we apparently are, we constantly have to go back to the greater world for nourishment and solace. We have to breathe the air, drink the water, and eat the food nature provides for us. Every day we have to sink deep into the cosmos in unconscious sleep to renew ourselves at the source. We are much like children who run and play only to return to slumber at the bosom of the mother.



Plant, animal, and human in relation to the macrocosm

([illustration credit 25](#))

The plant world supports us all along generously and selflessly, renewing the oxygen in the air and giving warmth, shelter, staple foods, spices, and stimulants to cheer us. And when our wily, free-ranging spirits lose their equilibrium, leading our emotions and then our body into chaos and disrupting its healthy functioning, plants are there to help as medicines. Human illness has been interpreted as a process of moving from a previous state of equilibrium toward a new equilibrium, as a change in homeostasis that might result in a higher state of health coupled with more consciousness. Observe children before and after the typical childhood diseases. Is it not true that they are more awake, more conscious after having gone through them? For some philosophers, such as Teilhard de Chardin, this is the point of nature's audacious experiment with mankind: to create more consciousness! Homeopathic doctors try to take this

into account and see it as their duty to shepherd this process by neither suppressing the symptoms nor letting complications occur.

When warmth, fresh air, water, and wholesome food are no longer of avail in helping the body out of its wretched condition, stronger plants are called for—plants whose strange odors, distorted forms, arrhythmic life cycles, and often poisonous nature match the distortions and bizarre state of the physical/etheric organism of the ailing human being. As the ancient herbalists have been claiming all along, the forces that give *external* appearance to the plant are the same forces that account for the *internal* processes of health and illness in the human being. Thus, the astral forces (or planetary influences) that create the kidneys in the body manifest themselves in the horsetail (*Equisetum arvense*) in the field; the forces that form the heart are akin to those that form the foxglove (*Digitalis purpurea*); what is active in the intestines has its external counterpart in chamomile flowering by a dusty roadside; those that create the gastric juices also create the bitter wormwood (*Artemisia absinthium*).² The herbalist of old looked for just such correspondences between man and plant, anchored in the concept of planetary signature, not the chemically active substance, the “active ingredients” that our laboratories are currently testing for.

Even today, herbalists following the lead of Paracelsus and Samuel Hahnemann do not think that it is so much the active ingredient that links into the metabolism of the body; rather, it is the organism’s (often antagonistic) response toward the unusual astrality of specific plants. This astrality arouses the body’s own healing power. This accounts for the often dramatic therapeutic effect of plants for which pharmacologists have failed to isolate any so-called active ingredients—for example, in such popular healing herbs as ginseng, valerian root, or lady’s mantle. This is, of course, the crux of the matter that puts the empirically operating scientist in a quandary. How is one to correctly identify and apply such correspondences and signatures? Most herbalists agree that a special gift, a second sight, is needed. Healing is an art more than a science. Some medical doctors and scientists have, however, attempted to give more substantial evidence and testing procedures. Samuel

Hahnemann, for example, sought clarity with his “provings,” that is, testing the medicaments on his own healthy body, then observing the symptoms that appeared and comparing them with the symptoms of the sick.

Among other attempts to make qualitative aspects (i.e., those normally perceived by the faculties of the intuition and imagination) visible have been a number of picture-creating methods. For example, the quality of the air in a room in the winter can be ascertained by looking at the frost flowers that form on the window, just as the quality of milk and the heat source can be made visible by the tension lines that form on the skin of the milk. It is also known that the way crystals grow and develop can be influenced by impurities in the crystalline solution. Masaru Emoto, for example has photographed ice crystals that formed under varying conditions. In East Asian philosophy, water is considered a pure yin substance; it will be impressed by and take on the energies with which it comes in contact. Spring water and naturally flowing water will produce elegant, harmonious ice crystal patterns; piped city water will have distorted crystals. When in contact with flowers, the crystal shapes will somewhat resemble the geometry of the flower. Even sounds, such as chants and mantras, will influence the crystal structure.³ A few decades earlier, Lilly Kolisko developed a method of qualitative analysis of liquids: she allowed a biological solution to climb up a column of filter paper and then let silver nitrate follow up the same column. The results are wavy patterns and colorful bands that are characteristic of the biological substance tested—and reproducible. Even better known than Kolisko’s capillary dynamolysis is Ehrenfried Pfeiffer’s sensitive crystallization method. A small measured drop of blood, milk, plant juice, herbal extract, or any other organic fluid to be qualitatively analyzed is dropped onto a plate with copper chloride solution. Each substance crystallizes out into a characteristic pattern that can be compared. Interestingly enough, researchers applying this method have found that crystal patterns derived from herbal extracts show patterns similar to those derived from extracts of the tissues and organs they affect. The method is one of visual comparison, requiring an

observant, artistic eye on the part of the researcher, and the results are not readily quantified. Nonetheless, sensitive crystallizations are used effectively in standard hospitals for blood and serum tests (sometimes an illness is detected before external symptoms show themselves). Biodynamic agricultural researchers have been able to show characteristic differences between organically grown vegetables and those fed from the fertilizer bag, as well as to show the difference between raw milk and homogenized, pasteurized milk. In both cases, mere quantitative analysis would indicate little difference as far as chemical formulas or ingredients are concerned.⁴

There are dozens of similar attempts that could be mentioned in this context, including Kirlian photography and attaching electrodes to leaves to measure “energies,” “auras,” and “magnetisms.” Even if some of these are of dubious scientific merit, at least they show that not everybody feels at home with the materialistic explanations of life offered in the textbooks.

Anthroposophic Medicine

The anthroposophic medicine of Rudolf Steiner includes large stretches of homeopathy and herbalism. The medical plants grown for Weleda Company, which produces anthroposophic medications, are grown in accordance with cosmic rhythms, and the composts used are treated with herbal preparations that are meant to intensify the planetary forces in these herbs.⁵

Steiner teaches that we sustain our physical existence not just by what enters our mouths as food and water. The air we breathe is a finer form of nourishment, and what enters our senses is even more subtle. (Just consider how merely looking at a picture can upset or relax us and how seeing sumptuous food can make the mouth water.) In any case, everything we take in from the macrocosm, from sense impression to bulk food, we have to deal with, to digest, to “overcome” and turn into our own. If we cannot digest something, then we are overwhelmed by the macrocosm: we are “poisoned,” so to speak, and will suffer.

We are normally very aware of what enters our senses (eyes, ears, nose, tongue, skin); we are only semiconscious of our breathing, heartbeat, or bladder function; and we are completely unconscious of the deeper organs. These descending thresholds of consciousness can be interpreted as the steps from “earth” consciousness to the semiconsciousness of the lower planets (the moon, Mercury, Venus) and further to the deep unconsciousness of the upper planets (Mars, Jupiter, Saturn). Once the food is swallowed, we lose track of it—unless heartburn or upset stomach tell us that it does not “taste” quite right down there. Actually, the deep organs taste the food just as much as tongue and palate, only it occurs below the threshold of our normal consciousness. Our food goes silently its way, stimulating this or that organ. A yogi or clairvoyant might be able to consciously descend so deeply into his physical organization that he knows what is happening, but the ordinary person is not aware of it. Most of us do not have the ability to follow with the mind’s eye the morsel of asparagus as it is bathed in the stomach acids, is absorbed by the small intestines, and, finally, tingles the kidneys. Yet that is exactly what is happening. Different organs respond to different plant (food) substances. In “tasting” them, they are stimulated, soothed, or irritated. It follows, according to Steiner, that illness occurs when food does not taste good to the organs, when it is one-sided or overwhelms the organ in question. If this is the result of eating habits, the organ serves notice, and the nervous system registers “pain.”

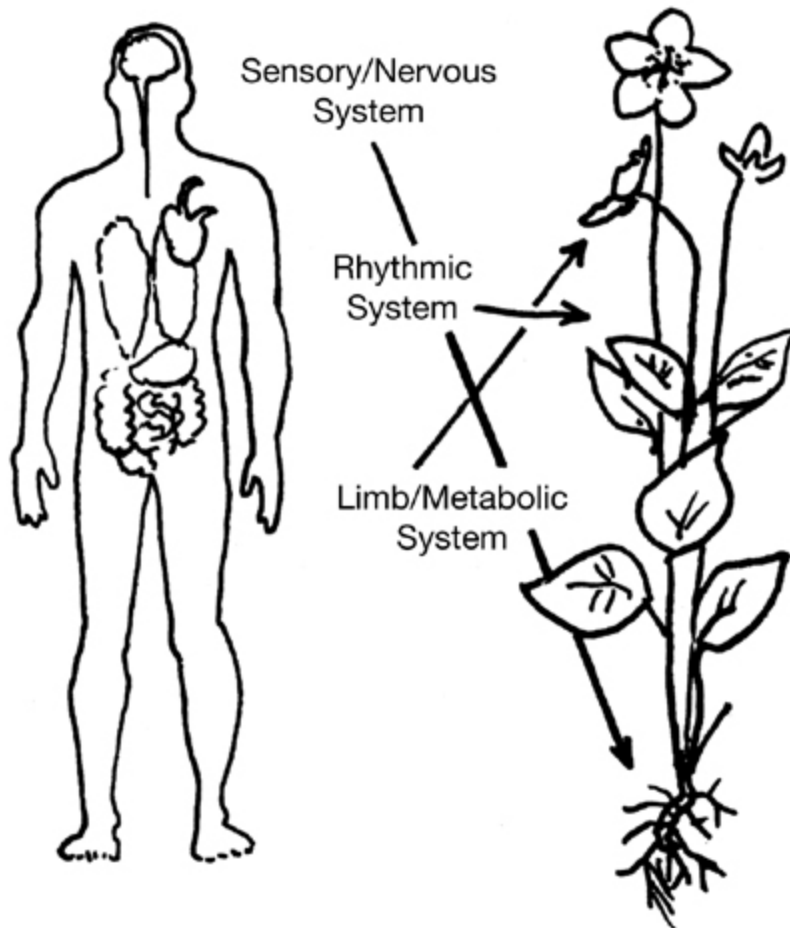
An aspect of aging is that these “taste organs” get dull. Food does not stimulate these deafened organs anymore. What is needed is to wake them up, stimulate and excite them back to the *joie de vivre*. Since plain bread and potatoes can no longer do this, spices and herbs can be used. And if this is not radical enough, even minute doses of poisonous herbs can be used to rattle them. For the deeper organs, plants with the signatures of the deeper planets (Mars, Jupiter, Saturn) are used. After the dull foods of winter, people traditionally made use of tonics to stimulate glands and organs, to shake off “spring fever.” Dandelion will rouse liver and gall; fresh asparagus will cleanse the urinary system, as will birch leaves or

nettle greens. Herb books are full of such tonics. In the spring, the saps and juices of fresh green vegetation flow with new vitality as the plants are revived by the macrocosmic astrality flowing in from the cosmos and as the sun lifts ever higher into the heavens. This macrocosmic astrality (the cosmic information) is imprinted upon the etheric structure of the plants, each species being a unique sensor for part of the total spectrum. When we take them into our body, these plants transmit this macrocosmic information to the organs of the microcosm. Thus, macrocosmic formative forces are transferred to the microcosmic loci of astrality (the organs).

According to Steiner, a basic threefoldness permeates our universe. From the sublime, holy trinity (or the *aum* with its three world-sustaining sounds) the triad is impressed in some way in all creation: man/woman/child, spirit/soul/matter, thesis/antithesis/synthesis, right/middle/left, and past/present/future, to name a few. For a spell to bind or a curse to hold, it must be repeated thrice. Thus, the human structure, as that of the plant, bears the stamp of threefoldness: the roots, foliage, and flowering parts in the plant correspond to the head structure (nervous system), rhythmic system (lung and heart), and limb/metabolic system in the human. The head represents the pole of consciousness and rest. The limb/metabolic system is the opposite pole, consisting of vitality (sex and reproduction), movement (digestion works even when sleeping), and unconsciousness. The rhythmic system forms the middle of that polarity, rhythmically balancing the lower and upper pole of the body structure. Anchored in these three aspects are the soul functions of thinking (head), feeling (heart), and will (guts). It must be added that the three are not mutually exclusive compartments; there is, of course, metabolism in the brain, just as there is nervous activity in the abdominal cavity. All regions interpenetrate each other.

This thrice-partitioned psychosomatic entity is, as briefly indicated, matched by a threefoldness of the archetypal plant, consisting of the rooting system, the vegetative system, and the fruiting/flowering system. The root, the most compact part of the plant, sending rootlets out to “sense” needed minerals and nutrients,

is compared to the head structure. The fruiting/flowering pole of the plant, with its color, aroma, pollen, and seed production, corresponds to the limb/metabolic system. The chlorophyllous (the counterpart of blood), green parts of the plant, growing rhythmically from node to node and exchanging oxygen for carbon dioxide, form the middle that connects the two opposite poles. We see that Steiner picks up on the idea of the human being as an upside-down plant! Given this image, anthroposophic herbalists are wont to give medicine derived from the root for ailments of the head, sensory organs, and nerves (e.g., valerian root for calming nerves, horseradish root for migraine headache). Greens and leaf drugs are preferred for disorders of the rhythmic system (i.e., diseases of the heart, blood, and lungs). Flowers and seeds are preferred for ailments of the digestive and metabolic functions (e.g., chamomile for inflamed intestines; anise, caraway, or some other umbellifer seeds as digestives and carminatives). Of course, these are very general guidelines for the herbalist; quite often, roots are called for in curing metabolic functions and flowers for nervous disorders. As mentioned before, we are not dealing with logically exclusive categories. Syllogisms crumble. The method suggested here is one to please artists, those with active imaginative faculties—and, at times, charlatans.



The threefold human organism in relation to the plant

([illustration credit 26](#))

The image of the human being as an upside-down plant is not without its logical flaws. The rooting system could just as well be seen as a digestive system of the plant: the tiny root hairs absorb the humus substances, much as the cilia of the duodenum absorb the chyme. Roots and shoots are certainly that pole of the plant that has the most vitality. Stick a root or shoot into the soil, and, most likely, a new plant will grow from it; but stick a flowering branch or even a petal into the ground, and one will find that the vitality has been spent. Taken that way, the flowering pole is analogous to the head structure. Yet even the anthroposophists and Rudolf Steiner would agree with this. Truth is not a thing that can be quantified, measured, and once and for all time defined—or perhaps the

“truths” about the inorganic world can, but definitely not the truths of the etheric, astral, or spiritual world, the truth of the living organism: here seeming contradictions might explain better than singular statements. The peasant philosopher Arthur Hermes, making use of Steiner’s vocabulary, insisted again and again that in order to apprehend the truth of a matter, one must think in polarities. Think something, then think its opposite; the truth will be found in the middle of the two. In other words, ye fearful folk, be not afraid of contradictions—for reality is woven thereof, and the truth can be imagined by analogies, by so many picture and schemes that we should hold up to our mind’s eye to be examined and willingly discard just as easily again.

Is the flux and flow of nature, the constantly changing and metamorphosing image of the world of living beings—of flowers, frogs, birds, rain, snow, health, and illness—not itself like a series of images or pictures? Who would dare freeze one of these pictures and declare the dead, frozen image as the absolute truth? The truth winds, worms, and wriggles. With an ever-changing kaleidoscope of pictures, silly and profound, grandiose and simple, we keep track of reality. Only in the world of mechanisms, positive logic, finance, and chloroformed lizards does the black-or-white, fixed image hold and the positive and negative charges of computer circuits make sense. Or does it? Are venerable laws of mathematics and physics also just useful, interesting, fascinating pictures and analogies of a mystery that defies defining? In the smile of the Enlightened One, or perhaps in the mysterious smile of the Gioconda Mona Lisa, lies the answer: let the children play with their toys.

In the meantime, doctors and physicians, the descendents not of wortcunners, wise women, and midwives but of laboratory apprentices, barbers, and butchers, out of whom the new medical profession has grown into status and power, have sought to understand human bodies and illnesses along the lines of black-or-white logic. They have sought to apply the laws of math, physics, and mechanics to the problems. Like puritan zealots, they have banned the colorful pictures, the imaginations, the herbs, and the stars along with those who knew about them. They have scoured the

medical schools free of dirt, superstition, and hocus-pocus. And yet, look closer at their guild: the staff of the god Hermes (also the dollar sign, remember) is still their emblem. The red cross, an ancient symbol of banning and crossing out evil influences, and the Eye of Horus used for prescriptions are still in vogue. The white robe is the garment of priests and their vestal virgins, the nurses. The stethoscope is hung over the chest as in ancient Egypt the ram's horns of the god Amun were hung on the chest of the physician-priests as a symbol of priestly authority. Then there is the ophthalmoscope shining on the forehead like a third eye, the cleanliness of the temple of healing and death, the coded archaic mystery language (medical Latin), and the mystery of the invisible, evil influences (germs and viruses). Where has the magic stopped? Where has the imagery ended?

Let us now see how modern humans might once again approach plants and connect with their healing spirit.

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CHAPTER FIVE

How to Become an Herbalist





Becoming an herbalist is like becoming an artist. To begin with, one must have a gift for wortcunning, and one must develop and train this gift by becoming part of the venerable tradition of herbology. The best way to learn is by becoming an apprentice to a true herbalist and picking up the lore, which is passed on by word of mouth. If one has a grandmother who is wort-wise or stumbles upon an old shaman, one is indeed fortunate in this modern world where traditions are being abandoned, just as the habitats of many medical herbs are being destroyed.

But one can start from scratch, so to say, and go the long way by oneself in rediscovering the secrets. A precondition is, of course, to live a quiet and observant life. A good conscience and upright life, full of compassion and sympathy for all living beings, is the necessary ground upon which the knowledge of wortcunning can develop. It is the way of mindfulness (*satipatthana*), as the Buddhists would call it. Then, the following steps can be taken:

1. Learn botany and taxonomy and get a good plant-identification book.
2. Go on a nature walk every day, regardless of snow, rain, or sunshine and observe the plants carefully, stopping to look at each one that catches your fancy. This can be done even in the city, along railroad tracks, and in vacant lots or parks.
3. Meditate on the plants. Let the image of each plant that you have contemplated pass once again in front of the mind's eye that evening. Repeat this for several days until the inner image and that of the external plant coincide.
4. Draw, or better yet, paint the plant with watercolors—the flowing, watery medium of watercolors lends itself better to the nature of the living plant than do other mediums. Do this until you have the feeling the plant is portraying itself and you are just the medium for its expression. You may also dance out the gestures of the plant, imitating its stretching to the sun, the opening and closing of the petals, and the visit of bee and

butterfly. Become the plant. Reach into the earth with your roots; drink the morning dew, blossom out, swell into a fruit, roll into a tiny seed. Eurythmy, a harmonic language of body movements developed by Rudolf Steiner, can be helpful in this.

5. Read, study, and contemplate the folklore of specific plants. Fairy tales, old wives' tales, legends, and obscure folk customs are the keys to the deeper, occult nature of the plants. They are gateways to the devas, dryads, yakshas, plant souls, elves, and other nature spirits that are associated with the inside of the plant world.
6. Doing all of this, perhaps you will dream about the plants. So, become aware of your dreams. Everything that we have done and experienced during the day, we take into the world of sleep where the inside of our external experience reveals itself. If you are aware in that realm, you might meet the flower fairy or the plant soul.
7. Do not just look at the plants, but touch, taste, and smell them! Smelling and tasting take us to profounder states of consciousness, having appeared at an earlier stage in our phylogenetic evolution. Babies start out by smelling and tasting the environment before apprehending it with their eyes. Make sure, though, that you know the poisonous species well enough so that you won't eat baneberries or poison sumac!
8. When you become aware of a new plant for the first time, notice all of the circumstantial aspects. What are you thinking of just then? Who is with you? What is going on around you at that moment? These associations are part of the total picture that the plant-soul is presenting to you. The meaning of these associations is not always immediately apparent, but in later years they will become part of your image of the plant. Thus, the blue of the chicory might remind you of the color of the eyes of your best friend. Blackberries or gooseberries might transport you to your grandfather's garden. Flowering lilac might recall your first kiss. In this way, one trains oneself not to rest with the isolated appearance of the plant, but to connect it

in a wider context. For the plant is, as we have seen, not a self-contained object but the nexus of all kinds of forces with physical, etheric, astral, and spiritual dimensions. It is important to follow with one's mind these vectors into all directions, in order to find the wider nature of this being that delicately appears before our eyes, trapped in the dimension of time and space.

As we readily surmise, this method easily passes beyond the borders and barriers of the scientific method. It might not get you a doctorate in botany or make you an MD, but it will make you—if the gods be willing—a cunner of worts.

Traditional herbalists, such as native South American *yerberos*, will spend a whole month with a plant in the wild to get to know it. It is a process similar to a vision quest. During this time, they will eat a special diet of white foods, such as palm hearts, coconuts, or white plantains, much as shamans do during their initiation, all the while abstaining from sex, alcohol, and social contact. If the rite is successful, the plant spirit will give them a dream or vision of its powers, and perhaps a medicine song (*icaro*), with which the herbalist can call upon the plant spirit at times when needed. The knowledge gained from the plant spirit is objectively real and upon analysis pharmacologically correct.

Collecting Skills

Many herbals and manuals that give valuable guidelines on how to collect and store botanical material are available at the bookstores these days. It is not my intention to repeat these here, but to give some general indications:

1. It is important to have positive identification of the *materia medica* or the wild edible plant. This means that one should know the poisonous species, learn the characteristics of each family, and master the Greco-Latin nomenclature of the important species. Common names vary from region to region

and from period to period, often using the same name for a different species. This could be dangerous. Such confusion occurs—to name just one example from the Western states—with kinnikinnick, an Algonquin word referring to the bearberry (*Arctostaphylos uva-ursi*), from which an infusion is made to heal bladder inflammations. Some sources refer to the red osier dogwood (*Cornus stolonifera*) by the same name and tell that the Indians smoked the scrapings of the inner bark to obtain a slight euphoria. Still others refer to the sumac (*Rhus virens* and *R. micro-phylla*) as kinnikinnick.

2. Respect the plant and do not be greedy by picking too much or needlessly. At the site where you pick or dig, always leave some examples to reproduce. In parts of the Appalachians, golden seal has just about disappeared, as have sassafras and ginseng.¹ In Ireland, the draining of fens, digging of peat moss, and greed of a drug manufacturer have decimated the little insect-eating sundew (*Drosera rotundifolia*). Gentian and hellebore are becoming rare because of pickers. From this it follows that the true herbalist ought to grow his herbs whenever possible and help spread the seeds and cuttings of wild species.
3. An attitude of reverence and thankfulness ought to accompany herb gathering. Traditional people always thanked the gods and chanted to the herbs while harvesting. The American Indians would offer tobacco to the plant and speak to it. Arthur Hermes, when picking a healing herb, clears his mind of all superficialities and focuses it on Christ, Lord of the Universe, without whom there would be no true healing. Rolling Thunder, a Native American wortcunner, claims that if an herbalist pulls an herb from the ground without an offering, his medicine will be weak.
4. Collect plants at the right time. This makes perfect sense knowing that the cellular chemistry of the plants fluctuates with diurnal, lunar, and solar (seasonal) rhythms. Just as fruit is at the peak of ripeness only a limited time, so the medical

effectiveness of plants has its peak times. Following are some general rules:

- a. Leaves should be picked in the morning, just after the dew has dried.² They are best harvested just around the new moon, when the moon is in the fourth or first quarter, and when other planetary constellations are good.
 - b. Roots should be gathered in the evening when the juices and energies created in the leaves travel downward for storage. They are best gathered in the waning or new moon during favorable constellations.
 - c. Roots should be collected during dormant seasons or before flowering, barks in the spring or fall, buds in the early spring, and leaves during the growing season before flowering. Flowers should be picked when young, just out of the bud.
5. Because of the direct radiation of the sun and the fresher, cleaner air, herbs growing in the high mountains are of better quality than lowland plants. Wild plants are certainly more potent than domestically grown plants—for one thing, they grow in the habitat of their own choosing, where they find the conditions best suited to them. When one does grow one's own herbs, it goes without question that they are better if grown organically or biodynamically.

Roadsides are dangerous places to pick plants. Internal combustion engines are notorious for the noxious fumes they spew out. Along with the burned fuel come traces of heavy metals such as lead, asbestos from the brakes, and other substances that can cause liver, kidney, lung, and skin problems. As breathing organisms, leaves respire these fumes; and as experiments with foliar feeding show, they will absorb substances through their “skin.” Another danger is the widespread spraying of fields and roadsides by agrobusiness and highway departments with herbicides and insecticides.

These substances are highly inimical to life as the suffix “-cide” (from Latin *cida*, *caedere*, to kill) indicates. They can accumulate

over time in the organism, causing liver damage, nervous disorders, and cancer. Dioxin, one of the impurities in the herbicide 2,4,5-T (the wonder chemical that defoliated a third of the Vietnamese jungle), is known to be highly carcinogenic and mutagenic (causing multiple birth defects). The Environmental Protection Agency has shown that parts per trillion are damaging. Some herbalists have the rule of thumb to gather herbs at least a stone's throw from roadsides, no matter how attractive the plants appear.

6. Herbs should be dried in airy, shady places to prevent mildew or mold. They should stay green, and the flower petals should retain their color. They should not turn brown. If need be, herbs can be placed briefly in an oven at about 90°F if the atmosphere is otherwise humid. Drying plants in direct sunlight will destroy most of their beneficial properties. The materia medica should be stored in dark containers to prevent photochemical changes and kept dry (moisture content less than 10 percent). Otherwise, tinctures (macerations in alcohol), syrups (preserved in sugar), oil macerations, or powders (evaporated extracts) are ways of preserving herbal substances. It is better to keep herbs whole than to grind or powder them because there will be less surface area where oxidation or bacterial activity can affect them. Don't let the gopher instinct get a hold of you: drugs keep best for only one year. There is no use accumulating excessive stocks.

How to Administer Herbal Medicine

The most common method used by traditional herbalists is to prepare an infusion—also called a tea, brew, or tisane. Such a tea is made by pouring boiling water over a pinch (or teaspoon) per cup or pint of the dried herb. A cup of this liquid is drunk three times a day—that magic three again—at the sacred, cardinal points of the day: morning, noon, and evening (sunrise, high noon, and sunset). This practice is culture-specific for Western Europe and goes back to

megalithic times. The cup or cauldron containing water was considered feminine, the heat (the flame or ray of sunlight) masculine. As part of the healing ritual, both fire and water had to be combined in the presence of an herb. The legend of the Holy Grail, as well as Edward Bach's flower remedies, are a continuation of this cultural theme. Other cultures have other herbal traditions. The Plains Indians, for example, boil the medical herbs "as one would boil the marrow out of the bones."

When an herb is put into cold water and slowly heated just up to a boil, one has a *decoction*. Sometimes a decoction is boiled for a specific amount of time, such as the leaves and flowers of the mallow, which makes a demulcent cough remedy. A *concoction* is a brew made from several ingredients that are cooked together (Latin *con* + *coquere*). A *maceration* (Latin *macerare* = "to soften") results when an herbal substance is soaked overnight in cold water and then strained. This method is reserved for soft, bulky botanicals (e.g., valerian root, rose hips, and linseeds) as it preserves volatile substances that would be lost by heating. Valerian root, for example, is soaked in cold water for a day and then drunk as a nerve tonic. Sometimes the botanicals are macerated in oil. The flowers of Saint-John's-wort are placed in olive or sunflower oil and exposed, in a clear bottle, to the sun for three weeks. The result (Saint-John's-wort oil) has the color of red burgundy wine and is an excellent rubbing oil for neuralgias and similar muscle and nerve pains. Swiss peasants massage hands and arms with it when the nerves get inflamed from the strain of milking cows. A *tincture* is a maceration in alcohol. Some of the volatile oils and resins are not water-soluble, so they are extracted and preserved as tinctures. Mint oils, *Melissengeist* (a tincture of lemon balm), and stomach bitters are examples.

Other ways of using herbs are to make juices and pulps, which should be used right away, or to preserve them by making syrup or jam. Sugar, like salt, creates a medium in which bacteria will not be able to thrive. Their tiny bodies will become dehydrated when, due to osmosis, the sugar or salt pulls the water right out of them.

Drying herbs likewise makes it difficult for microorganisms to live, as does the medium of alcohol.

For external uses, *poultices* (plasters of oils, starches, and mucilaginous matter) or *plasters* (waxes, resins, or fats containing the drug) can be applied. *Salves* (also called liniments, unctions, or frictions) are usually the drug in a medium of grease or gel, which is rubbed into the skin. Inhaling the drug as smoke is a method derived from Native Americans.

The knowledge of the preparation of such brews and salves was for millennia part and parcel of the skills that were passed from grandmothers to mothers and daughters, along with cooking, sewing, child care, love magic, and other abilities needed to promote the health and well-being of the family. With the increasing professionalization of medicine and the development of pharmaceutical companies, this has, sadly, been lost. Attempts are periodically made to give these skills back to the people to whom they belong. In China, Mao Tse-tung formulated the doctrine of “walking on both feet,” that is, keeping proven traditions while at the same time making use of modern developments. The so-called barefoot doctors, who know first aid and treat simple ills while leaving the complicated diseases to professional physicians and unusual pharmaceuticals, maintain traditional herbal skills.³ In India, Mahatma Gandhi likewise stressed the need to decentralize and simplify health care by advocating popular usage of naturopathy.

Alchemical Distillations

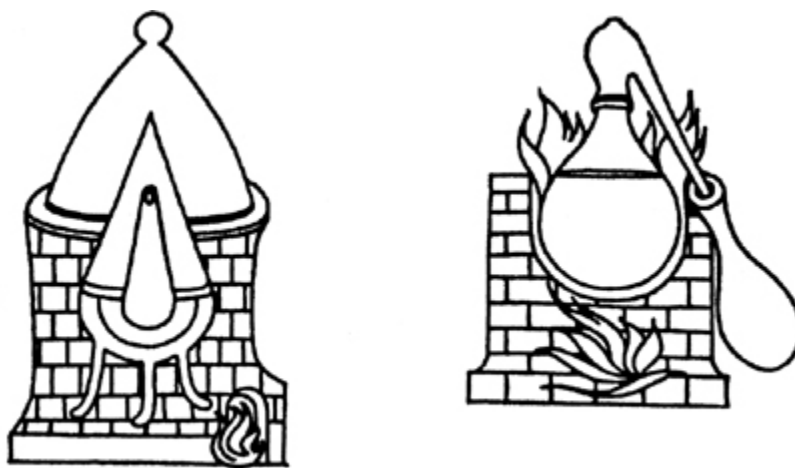
The distillation of oils and essences and the preparation of herbal salts are more difficult than cooking up teas and making salves and syrups. Like astrology, alchemy and alchemical concepts have been woven into the lore of the herbalists. Some herbalist-alchemists, such as Paracelsus, were eager to discover the *Arcanum*, the *elixir vita*, the *alkahest*, and the universal cure-all, just as other alchemists

were looking for the magic tincture that would turn base metal into pure gold.

The philosophy of alchemy claims that all substances were originally composed of primal matter, which differentiated the four elements. Under the influence of cosmic and planetary conditions, these in turn brought forth all manner of diverse substances. The existing minerals, plants, and animals are the result of the mixture of the elements. If one could dissolve existing forms and substances by various methods of manipulation, such as cooking, roasting, fermenting, pulverizing, and so forth, and return them to a state of primal matter (chaos), one could separate out the pure essences from the impure mixtures. One could also, at will, recombine the substances in ways that would be useful: one could create gold, the “water of life,” the universal medicine, and whatever else one wanted. This was the big dream of the alchemists—a dream dreamed for millennia, losing itself in the mud of ancient Egypt and the sands of the Arabian Desert. This dream underlies the development of modern chemistry: smart apprentices of grumpy, old wizards cleaned up once and for all with the superstitions of red lions, unicorns, black ravens, “chymical” weddings of King Sol and Queen Luna, and fiery dragons of Chaos, substituting instead letters and numbers and succeeding in unlocking the secrets of molecules, breaking them apart and reuniting them in ways that even Nature had not thought of. *Solva et coagula* was the slogan—“take apart and put it back together!”

Medieval alchemists applied this concept to the medical herbs. Whereas traditional wortcunners would just give an herb (simple) as an infusion or salve without altering it greatly, some mad, sooty seekers of the philosopher’s stone thought they could free the herb of its impurities and derive the “essence.” So they put the herb into their alembic to separate the sulfur (the volatile, flammable part) from it. The alembic is a still in which an herb is heated with a small amount of water. Hot vapors carry the herb’s volatile oil upward, passing it through a curved tube where it cools, condenses, and drips into a receptacle. The separated oil floats on the water. The water is then drained, and the volatile oil is kept as medicine.

The alchemical process need not stop here, however. After the essential oils are drawn out of the plant substance, the *soup* (the cooked plant with the rest of the water) is allowed to ferment (sometimes with the addition of a little sugar). The resultant alcohol (called *mercurius*) is then distilled in the alembic to make *agua vitae*, or *liquor*. After this distilling of the “spirits,” what plant substance is left is dried and *calcinated*—heated in an oven (*athanor*) until only white ash is left. This is the *sal*, or salt, of the plant. In a further process, the salt can be separated into water-soluble and non-water-soluble components.



The athanor and the alembic

([illustration credit 27](#))

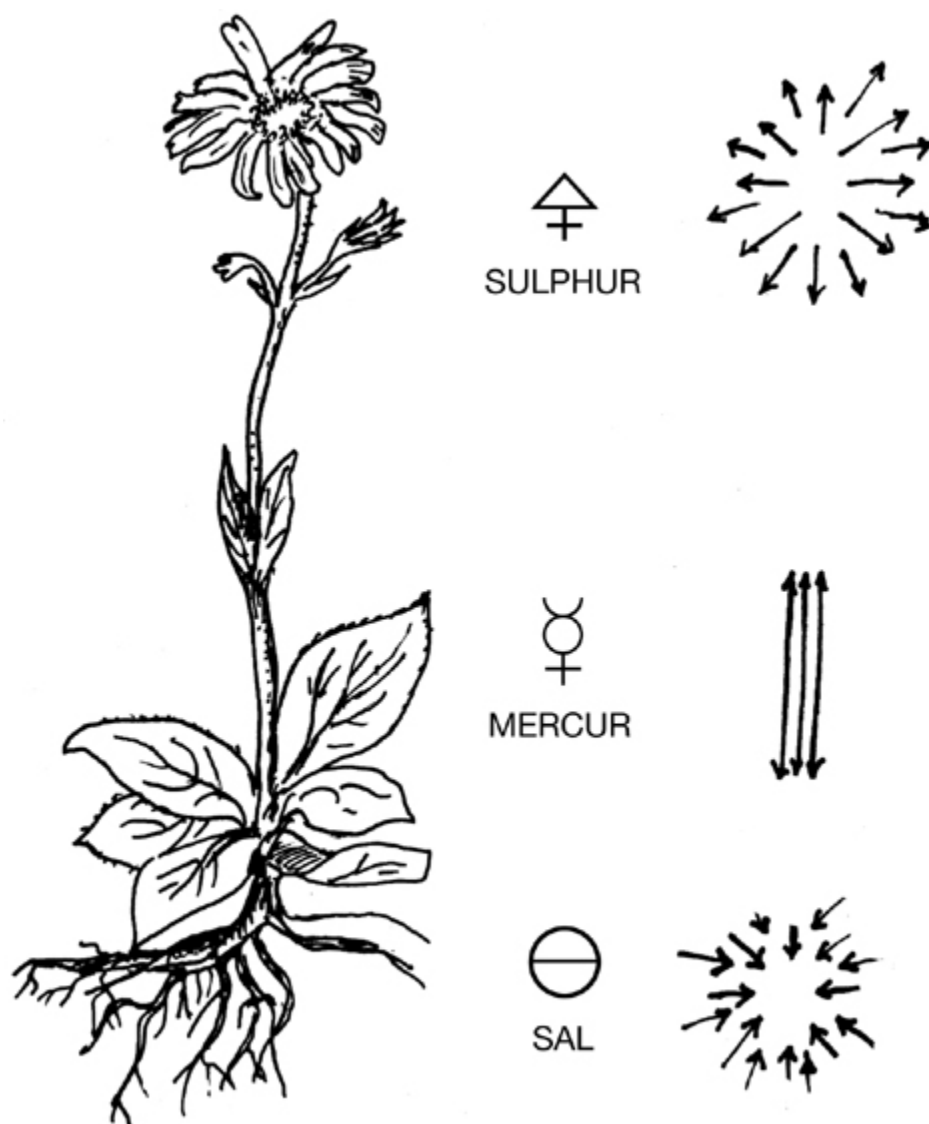
In summary, the medical herb can be separated into its component essences:

1. *Sulfur*, considered the “soul” of the plant, represented in old manuscripts as a lion
2. *Mercurius*, considered the “spirit” (to this day, alcoholic beverages are called “spirits”), represented by a bird
3. *Sal*, the mineral body, represented by a skull⁴

Rudolf Steiner sees such an alchemical process occurring in the macrocosm of nature in the development of the plant. A sulfur process is involved in the oils, resins, and perfumes of the fruiting

and flowering parts of the plant. Mercurius has to do with the plant juices of the vegetative part. Sal refers to the concentrated root pole of the plant, especially rich in mineral salts.

The huffing, puffing distilling and extracting were, of course, beyond the skills of the old wise women, shepherds, and wortcunners; but the monks, who were already adept at brewing wines (which were part of the sacrament), became renowned and their monasteries often wealthy because of their liquors. Benedictines seem to have been brewing their liquor already in the seventh century. In 1510 Don Bernardo Vincelli devised a secret formula for a liquor dedicated to the greater glory of God. To this day, this liquor blended from thirty different herbs, including hyssop, cardamom, angelica, peppermint, thyme, arnica, pinecones, myrrh, saffron, nutmeg, and maidenhair fern, bears the letters DOM (*Deo optimo maximo*—the most great and good God). Chartreuse, a liquor brewed by the austere Carthusian monks near Grenoble, comes in a green and a yellow form. The green Chartreuse has 250 herbs and spices, including exotic ones like palm leaves and orange peel, and the yellow Chartreuse has 187 spices. Other monks are renowned for their stomach bitters and flavored brandies.



Sulfur, mercurius, and sal in the plant

([illustration credit 28](#))

Alchemical potions with fascinating names that, at one time or another, were the wonder drug of their age include the *aurum potable* (“drinkable gold” made of sun-ruled herbs such as marigold, rosemary, sundew, and rock rose), *agua mirabilis* (a daily glass of this panacea made from cinnamon, galingale root, ginger, thyme, rosemary, and nutmeg steeped in claret wine would restore vigor, vitality, and youth), celestial potion (made of lunar and mercurial herbs such as lily of the valley, loosestrife, marjoram, vervain, and a

pinch of woodruff), and *elixir vitae*. The latter elixir is attributed to the abbot Trithemius of Sponheim (1462–1516) and contains calomel (mercurous chloride), expensive imports such as cinnamon and mace, as well as gentian, pennywort, and spikenard. Most of these potions are supposed to rejuvenate (read: fire up the passions of the loins) those over forty and ensure a long life, but this elixir seems not to have done the abbot of Sponheim much good: he died at the age of fifty-four.

The Cure

Our prescription drugs are a reflection of our lives. When we feel bad, have the sniffles, fever, or an upset stomach, we want to get rid of the symptoms as soon as possible. Not only is being sick no fun (one of the central values of the modern way of life), but it is costly—time is money—and we need to be back on the job as soon as possible! Thus, we use chemical “hammers” to knock the symptoms out and poisons to get rid of the microbes that “cause” the infection. This fits into a pace of life that rips us out of sleep with the ring of the alarm, pops us awake with a cup of caffeine, and provides an instant energy rush with orange juice, sugared coffee, and instant breakfast cereal while we inform ourselves at the push of the button about the news and weather (no need to look out the window to see if it is raining or snowing!), before instant transportation whisks us off to our job. Gone are the days when the rooster awoke the sleeper and the horse needed brushed, fed, and harnessed before being hitched to the buggy. Our speed is so fast that we need downers—cocktails or a couple of beers in the evenings to slow down enough to catch some entertainment.

Given such social conditions, it is no wonder that the herbal cures of the naturopaths and herbalists do not seem to be up to modern standards. Their remedies take too long and demand a lot of self-discipline, such as avoiding pleasurable foods, beverages, and fun habits. But as nature healers point out, chemical suppressors of symptoms, antibiotics, and the surgeon’s flick of the knife do not

constitute *healing*. Mahatma Gandhi rejected Western medicine that works merely at eliminating symptoms as “black magic” and “karma denial” because it does not allow the patient to reflect on the reasons for his suffering and lets him retain his old habits. It deprives him of moral progress that he might make: instead of opting to live a healthy, wholesome life, he can continue to indulge and avoid—at least for the time being—the consequences.

Killing germs does not constitute a cure. Max von Pettenkofer (1818–1901), the founder of experimental hygiene, was a contemporary of the fathers of the germ theory, Louis Pasteur and Robert Koch. Unlike them, he did not believe that germs, as such, made people ill; instead he taught that there had to be an individual predisposition for an illness to take hold. To prove his point, he had a virulent cholera culture sent to his laboratory from Paris and smeared it onto a buttered piece of bread that he ate in front of his astonished colleagues and students.⁵

Maintaining or regaining health is a matter of creating a wholesome lifestyle and environment. This becomes basically a social problem beyond the range of the individual as far as noisy machinery, nerve-wracking work schedules, and chemical pollution of the air, water, and food are concerned. Such problems call for political, even revolutionary, action. On the individual level, however, much can be done to maintain health by good habits:

1. Regular, good meals, centered around a staple.
2. Exercise, such as morning calisthenics, Tai Chi, or taking walks.
3. Fresh air, including airing out the rooms of the house every day.
4. Relaxation. Traditionally in Europe, when the evening bells tolled, all work was set aside, and everyone went home to socialize, eat, and rest (*Feierabend*). Sunday, as a day of rest every seven days, fits here. In Asia, yoga techniques are used to achieve a relaxed state.
5. Enough sleep. The amount of sleep needed varies from individual to individual. Generally, sleep before midnight is

important.

These rules apply for the healthy and the sick.

When illness came, the traditional way of healing was the *cure*, lasting two to six weeks or longer if needed, in which herbal preparations were used as a means of helping the organism to heal. To be more effective, strong spices, coffee, alcohol, black tea, and tobacco were avoided. The food was simple, nourishing fare such as porridge or oatmeal along with fruit juices or mineral water. This was combined with plenty of rest. It not only gave the organism a chance to re-create itself but also allowed the patient a chance to reflect upon his life (Gandhi would say to realize his karma). And if the illness was to be fatal, it was time for the person to arrange his affairs and prepare for the beyond. It is a form of therapy that does not stop at the external symptoms—of the body as a malfunctioning bio-machine—but takes the deeper nature of the human being, as a karmic body-soul-spirit entity, into account.

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CHAPTER SIX

From Staples to Poisons





Poisonous plants, good plants, nasty weeds, or food plants: these are relative categories, more indicative of what goes on in our heads than of what goes on in nature. Judged from the standpoint of what they can do to human beings—and, according to the Greek mysteries, man is the measure of all things—all plants are useful, and all plants are poisonous. According to Paracelsus, everything the human microcosm takes into itself from the macrocosm (nature) is poisonous. It must first be transformed by the inner alchemical principle, the *archeus*. Whether food, spice, stimulant, or medicine, what is important is the correct dose. Even poison hemlock can be a useful medicine in extremely minute dosage. And even bread can be poisonous: during the German occupation of Russia (1918), the wife of Dostoyevsky died from eating fresh bread. She had been so famished that she devoured two fresh-baked loaves, which swelled and burst her stomach.

Rather than rigid either/or categories, the human use of plants can be visualized as a sliding continuum. The dialectic poles of the continuum are the staples on one hand and the poisons on the other hand.

Staples are the staff of life. They are usually grains—grasses growing upright into light, air, and warmth that mature into nuggets of gold, capable of sustaining civilizations. Indeed, most civilizations that developed out of the Neolithic grew up on grain: wheat in the Western world (Persia, the Near East, and the Mediterranean basin); rice in the Far East; emmer, barley, and rye in the cooler north; millet and sorghum in Africa; and maize, or Indian corn, which sustained the New World civilizations. The staples were always regarded as the gift of the gods, if not the body of the gods themselves: “Take, eat; this is my body, given to you ...” The loaf of bread, everywhere considered holy, symbolizes the sacred bond of man to God, of the soil and sun, and of man to man (“companion” is from the Latin *com* + *panis* = “together” + “bread”; i.e., those who eat bread together). In the presence of bread (and honey) European peasants did not curse or tell untruths. According to U Maung

Maung, the poet of the Irrawaddy, “When the Burmese say, ‘Buddha, Buddha,’ they really mean ‘rice and yams.’ ”



Continuum from staples to poisons

([illustration credit 29](#))

Only in marginal regions did tubers take the place of cereal grasses as the staple: yams and taro in Melanesia, Polynesia, and some jungle regions of Southeast Asia; manioc in the Amazonian forest; and potatoes in the Andean highlands. These, too, were regarded as sacred. They were seen as gods or goddesses that had been sacrificed, buried, and turned into food tubers. In some of these cultures not so long ago, youths or captives might be ceremonially killed and their bodies chopped up and buried in the ground like the starts of the tubers in order to assure a good harvest.

If we go farther along the scale beyond the staple plants, we come to the vegetables proper. These are not staples, rich in calories and proteins, but they add vitamins, minerals, and flavors to the staple foods. *Zugemuess* is the old German designation of vegetables, meaning that they are added to the *muss* (or *muesli*), mush, the grain porridge. The common folk derived their nourishment almost

exclusively from their porridges, mush, and bread. For a while, the Irish ate nothing but potatoes. It was only the wealthy who could add meat and who started adding extra vegetables. When these poor fled the poverty of the early European Industrial Revolution, they were as eager for meat and trimmings as they were for their own houses with plumbing, their own spacious lawns, and their own carriages and hunting rifles, all of which had once been the privilege of the higher classes. In the process of developing the American Dream, the staple has nearly been dropped from the diet (“It makes you fat, anyway!”) and bread turned into white, spongy, “wonder” bread. In Italy, a pizza is still mainly bread with a thin sauce painted over it. American pizza consists mainly of trimmings.

A diet of just vegetables without the staple is decidedly one-sided. George Oshawa, the founder of the macrobiotic diet, which consists mainly of staple grains, warns that eating without staples will unbalance the body’s yin and yang. Indeed, too many greens can decalcify the bones and teeth. But it is precisely because of their one-sided nature that regular garden vegetables—as we shall see—can be of medical value.

Vegetables are often hard to digest, needing to be balanced by culinary herbs, which we find a little farther on our sliding scale. These are not foods at all but help to stimulate the glands of digestion, to give bland foods some zest, or to preserve food. There is no strict dividing line between them and the medicinal herbs. Medicinal herbs work just a bit more strongly and one-sidedly into the body’s physiology. Finally, we grade into the outright poisons, which are at the same time our most powerful medicines.

Staples, as life sustainers, can be enjoyed without worry about the amount eaten—excepting the tragic example of Mrs. Dostoyevsky! A vegetable cannot, however, be eaten day in, day out, like a bowl of rice or a loaf of bread. One can overdose on vegetables. Eating spinach every day of the year will harm the teeth; eating asparagus will harm the kidneys; and eating carrots will turn the skin orange, as a chain-smoker found out when trying to quit by substituting a carrot every time he felt the urge to smoke. Fortunately, Mother Nature has given us an instinct that lets us get tired of always eating

the same vegetable. Children react with sound instinct when they protest a spinach diet—the jive of Popeye notwithstanding. The season for each vegetable is relatively short. There is wisdom in eating the fruits and vegetables each in their own season and then being content to wait for the next year—they work like periodic stimulators of diverse body functions.¹ The magicians of this modern age, by managing imports from opposite ends of the earth and by means of freezers and preservatives, have taken the natural rhythm out of food.

With medical and culinary herbs, one has to watch the dosages even more closely because their effect on the body is even more powerful and specific. Potions made from outright poisonous plants have to be measured with the greatest exactness. They are seldom used by the ordinary herbalist or household wise woman, who are much more comfortable with measures such as “one pinch per cup three times a day” than with grains, drachms, scruples, minims, drams, or milligrams and grams.² Only the very skilled pharmacist would be able to prescribe such minute doses of poisons such as aconite, henbane, or hemlock.

The “Active Ingredients”

The wholesome, life-sustaining properties of the staples and ordinary food plants are due to the primary metabolism of the plant, resulting in usable sugars, starches, proteins, or fats. Some root vegetables contain unusual sugars, such as inulin, a polysaccharide fructose, that is easy for diabetics to digest. Inulin is found in the roots of sunchoke (*Helianthus tuberosus*), rampion root or bluebell (*Campanula rapunculus*), dahlia root, scorzonera, and the oyster plant—all of which are tasty vegetables.

The further one moves on the scale into the range of the poisonous plants, the more we are confronted with the products of the secondary metabolism in the plants. The vegetables themselves are characterized by a number of acids, such as ascorbic acid needed to make vitamin C, citric acid, oxalic acid, and so on, and take a

middle position. In animals, the secondary products of metabolism are detoxified, deactivated, filtered, and eliminated by special organs such as the liver, spleen, kidneys, and bladder. Since plants do not have specific organs of elimination, they just accumulate these waste products as inner secretions in special cells and vacuoles (oil cells, alkaloid cells, latex cells) where they are organically neutralized as hydroxyls (bases), methyl, methoxyl, or rings (aliphatic N-). These substances are “used-up” proteins that degenerate into alkaloids, sugars that combine with organic waste substances to form glucosides and saponins, and other carbohydrates that change their organic structure into tannins, volatile oils, resins, or balms. As such, they appear as scents, flavors, colors, or special features inscribed into the physiology of the plants like signatures. This is handy for those who can interpret them. These substances, no longer part of the etheric flow in the life of the plants, constitute the so-called active ingredients, which laboratory chemists isolate and refine or try to synthesize out of coal tar. The biochemistry of plants (and animals) is “cold,” proceeding best at body temperatures (30° to 40°C). The chemistry of the laboratory synthesizes these molecules at great heat and immense pressure. Cold, natural chemistry makes use of biocatalysts, enzymes, and ferments. In this manner, plants take the edge off the accumulated toxic metabolites and active substances by the use of *buffers*. One of the reasons for preferring botanicals to the purified, refined, or synthetic creations of the laboratory is that some of the biocatalysts and buffers are still working. The herbal substances are still part of the overall biological processes of nature and thus are gentler, balancing out and moderating the hammer effect of the active principles. Generally, there is a far greater risk of poisoning oneself with synthetic or refined drugs than with herbals. The World Health Organization’s Collaborating Center for International Drug Monitoring in Uppsala, Sweden, which monitors adverse drug reactions globally, received over 3,600,000 adverse drug reactions for the year 2006. Of these, only 0.5 percent were due to herbal medicine. One should keep in mind that 80 percent of the drugs used worldwide are of herbal origin, and only 20 percent are of

pharmaceutical origin. In other words, these 20 percent accounted for 99.5 percent of reactions ranging from debilitation to death.³

Now let us look at some of the substances derived from the secondary metabolism of plants. While we do so, let us keep the homeopaths in mind, who remind us that it is the information and not primarily the substance that is at work; and let us not forget the teaching of the sages about plant souls that express themselves in the physical plant, inscribing their signatures even into their chemical natures.

Glucosides

Glucosides (or glycosides) have to do with sugars, as their name (Greek *glykos* = “sweet”) suggests. They are metabolic waste substances that the plant has bound up with or neutralized with a sugar. When we eat a plant containing a glucoside, this bond is split, liberating the active, nonsugar substance. Most famous are the very poisonous, heart-effective glucosides found in spring Adonis, foxglove, lily of the valley, hellebore, swallow root, or crown vetch, from which our heart medicines are derived.

Glucosides are quite a diverse group of compounds, classified according to what the sugar is combined with. Here are some of the major groups:

1. *Cyanogenetic glucosides* contain hydrocyanic acid (prussic acid). This is found in the pits of members of the prune family (cherries, plums, apricots, bitter almonds, etc.) and in flax, sorghum, and arrowgrass (*Triglochin*). Upon eating the pit, cyanide is liberated. Cyanide is, of course, very poisonous, as any fan of murder mysteries knows. Spies commit suicide by chomping down upon a cyanide capsule; Jim Jones used cyanide mixed into Kool-Aid to kill his congregation. The unofficial cancer medicine Laetrile is made from the pits of apricots. Apparently, the cyanide is liberated in the cancer cells, preventing intercellular respiration and thus smothering them;

healthy cells have an enzyme that cancer cells lack, which prevents this cyanide poisoning.

2. *Phenol glucosides* are another quite diverse group. Salicin, found in the bark of willows or in meadowsweet, works on the “warmth center” in the hypothalamus and is an old fever remedy and a forerunner of aspirin. In the bearberry (*Arctostaphylos uva-ursi*) and heather, another phenol glucoside metabolizes with the alkaline urine, rendering it germicidal—a great remedy for bladder infections. In this group are the anthracenes, compounds from which red dyes have been made. Since ancient Egyptian times, they have been used to stimulate slimy secretions of the large intestine as well as the peristaltic, causing bowel movement. They include senna, aloe, sorrel, rhubarb (the root is a laxative), and alder buckthorn. Nursing mothers, pregnant women, and those with bleeding hemorrhoids should not use them.
3. *Saponin glucosides* are substances that decrease the surface tension of water, causing froth and suds when beaten in water. Hence plants like the bouncing bet (soapwort) and the amoles (Indian soap roots, such as yuccas and agaves) have been used to wash wool and hair. *Sapo* is a Latin word meaning soap! When taken internally, some, such as pokeweed, cause hemolysis of the blood—that is, they combine more readily with the red blood cells than oxygen, causing the organism to suffocate. Native fishermen made use of this: they crushed saponin-containing roots and threw them into ponds, causing the gill-breathing fish to “suffocate.” Subsequent cooking destroyed the poison in the fish. With most saponin-containing plants, such as buckeye, soybean, or ginseng, this effect is negligible. Medically, saponins irritate the mucous membranes, making them good expectorants, or induce sneezing. Some work diuretically. They work synergistically, facilitating the absorption of other medically active substances, which is why they are mixed with other herbs. This tonic effect comes to the

fore in ginseng. Present in such vegetables as asparagus, spinach, beans, tomatoes, and oats, saponins aid digestion.

4. *Flavone glucosides* (Latin *flavus* = “yellow”) occur in many plants that have been used as dyes. They have therapeutic value in connection with vitamin C; others affect circulation and the heart, the liver, or act as a diuretic. Examples of plants containing flavone glucosides that are used in folk medicine include the following:

- alder buckthorn (*Rhamnus frangula*), used for constipation and liver problems
- buckwheat (*Fagopyrum esculentum*), used for varicose veins and chilblains
- chervil (*Anthriscus cerefolium*), a cleansing tonic for liver and kidneys
- common horsetail (*Equisetum arvense*), used as an astringent, blood-staunching
- common toadflax (*Linaria vulgaris*), used for liver and skin diseases
- cow parsley (*Heracleum sphondylium*), used as an expectorant
- dyer’s broom (*Genista tinctora*), used as an emetic and cardiac stimulant
- elderberry (*Sambucus nigra*), flowers and fruits helpful for viral infections
- hawthorn (*Crataegus* spp.), used as tea for heart problems
- heather (*Calluna*), used as an antiseptic for the urinary system
- knotweed (*Polygonum* spp.), an astringent tonic for the digestive tract
- sea-buckthorn (*Hippophae rhamnoides*), an excellent source of vitamin C and carotenes
- shepherd’s purse (*Capsella bursa-pastoris*), an astringent, urinary antiseptic
- silverweed (*Potentilla anserine*), used as a remedy for cramps

- rue, herb of grace (*Ruta graveolens*), a wide variety of uses
- weld (*Reseda luteola*), used to treat skin disease
- white dead-nettle (*Lamium album*), flowers are used for problems of the uterus
- Ginkgo (*Ginkgo biloba*), which is popular today in treating dementia (Alzheimer's disease), belongs to this group. A leaf extract is used to improve the blood flow to the brain and other organs.

5. *Coumarin glucosides*: Coumarins are pleasant-smelling substances responsible for the fragrance of dried lavender that one puts in linen cupboards. It is also responsible for the aroma of substitute vanilla, derived from the Central American tonka bean tree. Sweet clover (*Melilotus officinalis*) contains a coumarin glycoside that is an anticoagulant. When cattle accidentally cut themselves after eating sweet clover, they run the risk of bleeding to death. In medicine, this anti-vitamin K can be used to prevent blood clots (thrombosis) in veins and arteries. The good smell of cleavers, also called Our Lady's bedstraw, derives from a coumarin compound. The folklore of the Middle Ages had it that the crib of the infant Jesus was bedded with this herb. To this day, peasants stuff pillows with fragrant bedstraw to get a good night's sleep. The may wine (*Maienbowle*) of southern Germany, made by steeping woodruff sprigs in white wine, is the wine of lovers and the spring festival. But woe to the poor head the day after! Woodruff soda water, a popular summer beverage, is no longer produced. Laboratory tests indicate that the coumarin compounds might be carcinogenic—the warning extended to Mexican vanilla (tonka bean). Curiously enough, in folk medicine, the bedstraw was used against cancer. Some coumarins photosensitize the skin; this might happen when it is rubbed with the leaves of celery, fig, or bergamot.

6. *Solanines* are glycoalkaloids found in members of the nightshade family, where they are concentrated in the green,

unripe fruits, leaves, and shoots, such as in the green potato. Solanine is poisonous, causing symptoms similar to gastroenteritis.

7. *Mustard oil glucosides* are substances found in the plants of the mustard family (Cruciferae). These are the heat source of the mustard packs. An excess of mustard or horseradish inhibits thyroid activity and is not recommended for those suffering from goiter.

Ethereal Oils

Essential oils, also referred to as etheric or ethereal oils, are strong-smelling and -tasting volatile oils. Their flightiness gives them their name (Greek *aither* = “heavenly air”). They are not water soluble but have to be dissolved in alcohol, ether, oils, or fats. Extraction is frequently done by distillation in an alembic. Some can be cold-pressed, such as citrus oil. Medically, these oils are very effective because they can be absorbed directly by the skin or the mucous membranes and, from there, penetrate the inner organs such as lungs, nerves, digestive organs, liver, or kidneys. They travel through blood and lymph and then to the organs of elimination, the lungs, and the urinary system. (One does not normally think of the lungs as organs of elimination, but the foul breath of sick people is an indication of this function.) In this way, essential oils can be effective medicine for pulmonary and urinary disorders, even though they are just rubbed on the skin. Some are used as rubefacients; that is, they are massaged into the skin to bring about better circulation. Others are used for compresses, rinses, and salves (e.g., chest salves). Still others can be inhaled by the patient, who breathes the ethereal vapors while keeping a towel over his head and a steaming bowl containing the herbs. Eucalyptus fumes are inhaled for the grippe, betony for headaches and neuralgia, and chamomile for bronchial troubles. Pine and fir needles in the bath are soothing and antiphlogistic (countering inflammation), as are

bathwater infusions of sage and chamomile. Digestion is greatly stimulated by mugwort, sweet flag (*Acorus calamus*), mints, and others. Some are carminatives, stimulating the spasmolytic action of the intestines. Some are cholagogues, stimulating the gall bladder; some increase or decrease lactation; and some even cause abortions. Many ethereal oils repel or attract insects; most are bacteriostatic (meaning that they hinder germs); and some are even antiseptic. Following are some examples of plants containing essential oils:

- anise
- calamus
- caraway
- carnations
- cinnamon
- conifers
- eucalyptus
- fennel
- juniper
- lavender
- lemon
- lemongrass
- mints
- parsley
- rosemary
- sage
- thyme

Alkaloids

Isolated alkaloids are white, crystalline, bitter-tasting, usually alkaline substances created by certain plants to cope with nitrogen

wastes or with excess nitrogen, which they cannot successfully turn into proteins. Whereas a given plant species usually produces only one etheric oil, when it comes to alkaloids, a plant might make over a dozen different alkaloids and store them in its tissue. They are powerful and often very poisonous substances, affecting body and mind, usually over the vegetative nervous system or the “old reptilian brain.” If subjected to repeated doses, the body reacts to this impact by adjusting its biochemical processes, creating a common condition called *addiction* (e.g., to coffee, opium, tobacco, etc.). Because of their power, they have been and still are favorite medicines. The problem is always how to find the right dosage. Families with strong alkaloid components are the poppies (Papaveraceae), nightshades (Solanaceae), crowfoot family (Ranunculaceae), madders (Rubiaceae), dogbanes (Apocynaceae), and lilies (Liliaceae). For the sake of characterization, here are a few of the thousands of alkaloids produced by plants:

- *Aconite*: a deadly heart poison found in monkshood; experiments are being conducted to treat heart and nerve problems with this substance.
- *Atropine*: derived from deadly nightshade (belladonna); used medicinally as an antispasmodic; checks saliva and mucus secretions; used to dilate pupils for eye operations.
- *Caffeine*: a purine (related to urine) found in coffee; stimulates the central nervous system and acts as a diuretic.
- *Chelidone*: a narcotic, poisonous diuretic and laxative derived from the celandine, useful in treating gall bladder trouble and jaundice; fresh juice gets rid of warts.
- *Cocaine*: from the South American coca shrub; blocks nerve conduction and can be used as a local anesthetic.
- *Codeine*: from the poppy, acts as an analgesic and can be used to check coughs because it depresses the cough center in the medulla.
- *Curare*: from several species of South American *Strychnos* plants; used by Indians as a poison for arrows.

- *Nicotine*: from the tobacco plant, increases blood pressure and pulse rate and constricts the blood vessels; an effective insecticide.
- *Quinine*: from the bark of the cinchona tree; used against malaria and also as an antipyretic and analgesic for muscular pains and headache.
- *Ephedrine*: from the twigs of the joint fir (ma huang; Mormon tea); raises blood pressure, increases heart rate, and dilates air passages and the pupils; used in treatment of asthma, coughs, and colds.
- *Morphine*: also derived from the poppy; depresses the central nervous system and is used as a painkiller.
- *Scopolamine*: derived from nightshades; depresses the central nervous system and acts as a sedative and hypnotic.
- *Strychnine*: derived from the nux vomica tree and other plants; paralyzes muscles.

A few common plants containing alkaloids follow:

- bittersweet
- box
- broom
- butterbur
- chickpea (fresh)
- common ragwort
- daffodil
- fritillary
- fumitory
- goats' rue
- gold rain
- groundsel
- henbane
- hound's-tongue

- larkspur
- meadow saffron
- meadow saffron
- mistletoe
- motherwort
- nightshade
- paprika
- poison hemlock
- poppy
- snowdrop
- staghorn club moss
- thorn apple
- water hemlock
- yew

Tannins

Tannins are organic acids found in barks and leaves that make body tissues pucker and pull together. In other words, they are astringents that can make skin and mucous membranes more resistant to irritations and inflammations; they can soothe weeping sores of burns or poison ivy and constrict hemorrhoids and ulcers. They cause protein to precipitate as a tough covering on such sores, reducing water and blood loss. Externally, they are used as soaking baths, internally as gargles and mouthwashes for angina and mouth sores and as suppositories for piles. Because they are water soluble and precipitate alkaloids, they are used as antidotes for alkaloid poisoning. Some are useful in stopping diarrhea. They are, however, hard on the liver. Roots and barks containing tannins should not be cooked longer than five minutes to retain effectiveness. Other well-known uses are the tanning of leather: different plants will give

different hues of brown, black, or yellow. Tannins derived from oak galls are made into ink. Tannins are especially frequent in the heather, legume, rose, and willow families. Following are some examples of plants containing tannins:

- agrimony
- alder
- beech
- betony
- bistort
- blackberry leaves
- blueberry leaves
- bugle (heal all)
- cinquefoil
- common black tea
- common elm
- field scabious
- fireweed
- great burnet
- ground ivy
- hart's tongue
- houseleek
- lady's mantle
- maidenhair fern
- oak bark
- peppermint
- purple loosestrife
- raspberry leaves
- rock brake
- self-heal

- sweet chestnut
- tormentil
- walnut
- white dryas
- wild strawberry
- witch hazel

Bitters

Bitters, also called *amara*, are not a singular chemical compound; rather, bitters is a collective term for bitter-tasting plant substances that can turn on the flow of gastric juices in the mouth, stomach, pancreas, and liver; stimulate appetite; and move sluggish bowels, thus working as stomachics, digestives, laxatives, cholagogues, and tonics. They work directly or indirectly by stimulating the taste buds and mucous membranes, which in turn activate the parasympathetic nervous system. Families producing bitters are the composites (cardo, artemisia, mugwort, yarrow), the gentians, and the mints (sage). They are given as tinctures, teas, wines, aperitifs, and stomach liquors.

Absinthe, a favorite drink of the avant-garde painters of the Belle Epoque (Gay Nineties), belongs to this group. This green liquor has the ability to create an alienated, “spacey” frame of mind that translates itself into the paintings of artists such as Henri de Toulouse-Lautrec and Edgar Degas. Leaves and flowering tops of wormwood (*Artemisia absinthium*), together with angelica root, sweet flag root, star anise, and other aromatics are macerated for eight days in alcohol and then distilled. This liquor is now illegal in many places because it leads to permanent mental and physical debility.

Bitters are taken in small quantities—a few swallows stretched over a period of an hour before the meal. This is said to increase the appetite. Taking excessive doses slows down the digestive process.

Smoking tobacco and drinking beer hinders their effectiveness. The well-known plants with bitters are the gentian root, blessed thistle (*Cnicus benedictus*), dandelion, and common centaury; bitters combined with aromatic oils are found in angelica, hops, calamus root, yarrow, and wormwood.

Mucilaginous Substances

Several plants have slimy, mucus-like substances (polysaccharides) that swell in water and, thus, have a soothing, emollient action on the mucous membranes of the esophagus and stomach-intestinal tract, allowing for gentle evacuation. Coltsfoot, slippery elm, plantain seeds (*Plantago ovata*), blond psyllium, isphaghula, and especially mallow and hollyhock soothe raw throats caused by coughing spells. The mucilage envelops and smothers bacteria. The emollient nature of comfrey or aloe vera heals wounds quickly.

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CHAPTER SEVEN

*Vegetables as Medicines
and Wild Foods*





The Chinese have never made a rigid distinction between foods and medicines. Hippocrates formulated what every mother knows intuitively: “Your medicine should be foods and your foods should be like medicine.” This statement is seconded by the Persian physician Rhazes (AD 850–923): “When you can heal by diet, prescribe no other remedy!”

Because of their certain one-sidedness, compared to the staples, garden vegetables can be used as safe remedies. Their use has continued, alongside of the herbs of field and forest, to this day in folk medicine. The subject would warrant a book itself. We will have to limit ourselves to a few examples taken at random.

Spinach

In the 1920s and 1930s, spinach (*Spinacia oleracea*) was pushed as the star health tonic: rich in iron, it would combat anemia (“tired blood”); rich in chlorophyll, it was marketed in toothpastes and deodorants. Chlorophyll, the name of the green stuff that captures the sun’s rays in leaves, was the charismatic carrier of the health fad of that time. Popeye the Sailor Man, who could brawl his way out of any tight spot on the energy derived from canned spinach, was the mascot of this craze. Indeed, spinach contains valuable minerals, amino acids, folic acid (good for pregnant women), vitamins (C, B₁, B₂, PP), and carotene. It is slightly laxative and stimulating and lowers the blood pressure, but the oxalic content—a trait it shares with its other relatives of the goosefoot family—makes it taboo for people with gout, diabetes, and bad kidneys. The irony of it all: oxalic acid ties up the iron by 90 percent and inhibits calcium uptake.¹ For all the spinach he gulped, Popeye should have died of kidney failure.

Garlic

One of the best-known medicines from the garden is garlic (*Allium sativum*). It shoots like the tip of a spear out of the ground, which accounts for its name (Anglo-Saxon *gar* + *leac* = “spear” and “leek”). For this reason and its pungent taste, Nicholas Culpeper assigned it to Mars. For the bard, Shakespeare, as for most northern Europeans, the smell of garlic was a sign of vulgarity. Yet had they known what wonders this reeking plant was capable of, they might have changed their minds. It contains vitamins (A, B₁, B₂, PP, C), minerals, and trace elements. It is a diaphoretic, diuretic, expectorant, stimulant, and antiseptic. It drives worms out of the bowels—a fact uninteresting to the modern urbanite but important in former times and during the last wars, when food and sanitation were poor and worms in the stool were common.

Garlic juice, containing the antibiotic allicin, was used in World War I to treat wounds. For hypersensitive patients, there is no better cure than garlic to lower the blood pressure. This can be done by munching the garlic directly or by concocting garlic liquor:

Place peeled garlic toes into a clear jar. Cover with alcohol. Set in the sun for two weeks. Strain. The cure starts with three drops in a glass of warm water before breakfast. One drop is added each day, up to twenty-five drops. Then go backward, deleting a drop until only one drop is reached. This can be done several times a year.

Another recipe calls for six peeled garlic bulbs steeped for a couple of weeks in a half liter of white wine and taking a spoon each day at breakfast.

The editors of *Prevention Magazine* write that garlic is a powerful spearhead against heart disease. It prevents the recurrence of heart attacks by increasing fibrinolytic activity—the body’s ability to dissolve heart-threatening blood clots.²

Maurice Mességué claims that garlic makes men virile.³ There must be something to it, for the sannyasins of India, having left the drives and desires of the flesh behind, have a horror of eating garlic or onion, lest their resolve weaken. When babies are baptized in Mességué’s native Gascogne, garlic is rubbed over their tongues,

along with a drop of brandy, so they will be tough enough for life and live long. It was also fed to roosters to make them fierce in cockfights. The renowned French herbalist suggests massaging the spine with garlic cloves for stirring up the fires of the loins. If the odor of garlic on the breath is bothersome, he recommends chewing some green parsley or grains of coffee.

For decongestion of the lungs, there is nothing better, in my experience, than drinking hot garlic milk. To make it, one simply cooks some garlic shortly in milk.

Onion

The onion (*Allium cepa*) is another member of the Alliaceae family of plants that rivals garlic in medicinal potency. The onion can be used as a stimulant, carminative, condiment, diuretic, expectorant, and aphrodisiac. One is tempted to ask, why else would the French be so avid about their onion soup! The plant is assigned to Venus. Onion gets rid of bad skin because it favors elimination: a bag of chopped onions will make the urine flow. Onion packs will draw poisons out of infections and clear sinuses. For common colds, onion syrup (onion juice in honey) or onion wine will bring relief. For onion wine, add 150 grams of onion and 100 grams of honey to a bottle of natural white wine, letting it macerate for fifteen days, and then take it by the spoonful for gout and colds.

Cabbage

Already known to the Romans, cabbage was a heal-all. Peasants in Russia attribute their robust health to their cabbage soup for breakfast, and in some parts of France cabbage is the *médecin des pauvres* (poor man's doctor). The German Renaissance doctor Hieronymus Bock claimed that urine passed after eating red cabbage can heal all kinds of ulcers, abscesses, and boils. But one need not pass it through one's bladder to benefit from its effect. Nowadays,

cabbage juice—raw, fresh pressed—has been used with great success to treat all kinds of ulcers. For stomach ulcers, a small glass taken five times daily will bring about a cure in two weeks. A glass of raw juice per day is also recommended for those with liver damage due to excessive drinking. Cabbage and sauerkraut have enough vitamin C to prevent scurvy. On his voyage around the world, Captain Cook lost not a man to this sailor's bane because he carried a load of sauerkraut along.

A cabbage poultice (chopped cabbage) draws the poisons out of acne, festering sores, and wounds. The mustard oil in the cabbage poultice will draw the blood to the surface of the skin, causing heating. When the heat is gone, it is time to change the poultice. Hot cabbage leaves can relieve sore muscles, sciatica, neuralgia, and rheumatism. Like the mustard-seed poultice, cabbage poultices can be packed on the chest to help bronchial and asthmatic conditions.

Some other members of the mustard family (Cruciferae) are listed below:

- The sulfury root of horseradish (*Amoracia rusticana*) not only spices up meat dishes, but poultices of freshly grated horseradish will also relieve migraine headaches or smarting rheumatic joints. Horseradish juice with lemon—weak stomachs beware!—will cut an asthmatic attack. Syrup made from one part horseradish juice and two parts honey calms coughs (dose: 1 teaspoon before each meal and before sleeping). This is also good for the spleen. For dropsy and urinary problems, an old folk remedy calls for horseradish beer: 2 ounces of grated root with some sugar added is put into 1.5 liters of beer and allowed to stand overnight.
- Black radish (*Raphanus nigra*) works wonders for hepatitis as trekkers to India have often had occasion to find out. It is also good for gallstones.
- Watercress (*Nasturtium officinalis*), belonging to the same family, can be similarly used externally as a compress for painful rheumatism and to clear skin disease. It is a regular vitamin pill, containing lots of vitamin C (along with A, B₂, E, and PP),

iodine, minerals, and iron. It grows in running water. It is advised to be cautious gathering it where sheep graze because snails and sheep are intermediate hosts to the liver fluke.

The Cruciferae provide a good illustration of the doctrine of signatures. They bring fiery sulfur (mustard oils) into the cold, wet climates of the northern latitudes, or, like horseradish and watercress, into marshy fields and creek beds. In being able to bring the lighter elements of air and fire into the cold, heavy elements of water and earth, they are able to bring warmth into all cold, watery diseases, such as dropsy, rheumatism, certain internal infections, and colds.

Carrot

The carrot (*Daucus carota*) has traditionally been used as a vermifuge, tonic, and healer of skin afflictions. Recent research suggests that the carrot reduces lung cancer due to its beta-carotene content.⁴ As a vegetable it was not very popular before the nineteenth century, when it replaced the parsnip. The carrot is also a living vitamin pill, containing vitamin A, which helps us see in the dark, along with B₁, B₂, PP, B₅, B₆, D, E, and minerals and sugars. It is a friend of babies: carrot mush stops the runs; raw carrots help teething; and mothers produce more milk if they eat carrots. The seeds of this plant, as well as those of the wild carrot (Queen Anne's lace), increase lactation in nursing mothers, as well as being slightly diuretic and—like anise seed—carminative, good for colic. Poultices of grated carrot vitalize the skin, clearing pimples and blemishes, but not as successfully as cabbage. Carrot leaves need not be thrown away. They can be added to soups or made into infusions to treat mouth sores.

Another member of the carrot family (Apiaceae) is celery (*Apium graveolens*), which comes in two varieties: stalk celery (var. *dulce*) and root celery (var. *rapaceum*). Americans prefer the former and Europeans the latter. The properties of this member of the carrot

family are that of an appetite stimulant, antirheumatic, emollient, diuretic, tonic, and, again according to Mességué, a stimulator of love:⁵

*Si femme savait ce que le celeri fait a l'homme,
elle irait en chercher de Paris jusqu'a Rome ...
Si l'homme savait l'effet du celeri,
il en remplirait son courtil!*

And ... oh la la! Mességué gives the ingredients of the love potion of Tristan and Isolde: it consists of lots of celery, to which is added the testicles of a two-year-old white rooster, the flowers of mandrake, some truffles (apparently it is not just the taste that excites the French bons vivants), a crayfish, black pepper, red cayenne, caraway, thyme, and bay leaves. *Vive l'amour!*

In Japan, celery is used as a cure for rheumatism: the rheumatic follows an exclusive celery diet for three weeks. Folk medicine recommends celery juice mixed with carrot or tomato juice for similar ends. Hippocrates recommends celery as a nerve tonic. This vegetable is a friend of the weight watchers. When one gets the munchies, one can chew on a fresh stalk. It is cleansing, taking slack and toxins out of the body via the kidneys, and the fiber is good for scouring the intestines.

Fennel (*Foeniculum vulgare*) is another umbellifer that brings on appetite, helps the stomach digest, lets urine flow, and expels wind. A few sprigs added to a mess of cabbage, green beans, or fava beans would help digest these heavy foods. Like wild carrot and parsley, it helps regulate the menses and makes mother's milk flow more generously. Venus has a gentle hand in this plant! Italian master gardeners have developed a variety called Florence fennel that can be eaten raw as an hors d'oeuvre or cooked with butter and cheese sauce. Which gourmet would deny such a pleasure?

Lettuce

Lettuce (*Lactuca sativa*) and its wild relatives contain a milky juice whence comes the name (Latin, *lac*, *lacteus* = “milk”). This milk is slightly narcotic and is used as an anodyne and sedative. For this reason, Mességué prescribes a head of lettuce as an evening meal for insomniacs. Because of its calming effect, it is called *herbe des sages* (herb of the wise); but it is also known as *herbe des eunuques* (herb of the eunuchs) because it diminishes the sex drive. On the other hand, it contains vitamin E, which makes for greater fertility. Unscrupulous opium dealers use the milk (*lactucarium*) of this vegetable to stretch the opium they sell. As a milky plant that makes one sleepy, it belongs to the moon and stands opposite the aromatic plants designated to Saturn.

Cucumber

The cucumber (*Cucumis sativus*) is also a lunar plant. Renaissance doctors taught that the moon gives us our skin. Thus, it should not surprise us that cucumber is one of the best refreshers and cleansers of tired or pimply skin. Cool slices of cucumber, placed on sunburn or rashes, will be far superior to any chemical goop. Some famous French beauty creams and soaps are made with the juice of this plant. Cucumber is a diuretic, a fact appreciated by overweight people who use it as a dietary aid.

Artichoke and Cardoon

The artichoke (*Cynara scolymus*) and its close relative the cardoon (*Cynara cardunculus*) are large silvery thistles that embellish the garden as well as the cooking pot. Both are liver and gall tonics and a boon to those suffering from diabetes and hardening of the arteries. The root, leaves, and stems of the artichoke are so bitter that they curdle milk, but that is just what gives it its medical value as a liver tonic and choleric. Mességué uses the fresh juice of its

leaves against rheumatism, giving it in a dose of 3 teaspoons per glass of Madera wine, once a day.

Asparagus

This stately member of the lily family is a tasty vegetable rich in vitamins (A, B₁, and B₂), aromatic amino acids, and saponins. It is a strong diuretic—so strong, in fact, that it may be irritating for those who have kidney stones or problems with the bladder or prostate. Because it flushes the organism, it is, as one would expect, good for rheumatism and gout while stimulating the pancreas, liver, and other glands.

Green Beans

Green beans (*Phaseous vulgaris*) also have diuretic action and are good for diabetes. Folk medicine uses them for albuminuria (cloudy urine) by cooking the dried husks in water for ten minutes and drinking five glasses per day for a period of ten days. For arteriosclerosis, 100 grams of dried husks are soaked for ten hours in a liter of water—the cure consists of drinking four cups a day for one month. Note that eating large amounts of raw beans causes vomiting and stomach cramps because they contain a cyanogenetic glucoside (which is driven off during cooking).

Picking the Right Food the Right Way

This little excursion into the healing aspects of common garden vegetables should suffice to bring home the idea that *food is medicine* and can be used to correct health imbalances. It goes without saying that the vegetables should be grown organically (biodynamically), without chemicals and poisons. They should be freshly picked: leaves and stems in the morning when the sap rises,

and roots in the evening. They should be picked in the right season and used with as little processing as possible. Since most vitamins are found in or directly under the skin, vegetables should not be peeled unnecessarily.

SPRING GREENS

Our organisms have evolved in interplay with the forces and rhythms of the macrocosm. Part of living with this natural rhythm is to eat the fruit and vegetables of the season. After the starchy roots and staples of the winter, the greens of spring provide the traditional cleansing tonic.

Arthur Hermes, the peasant herbalist of the Jura Mountains, filled his spring salads with herbs and weeds of garden, field, and woods. The following is a list of vitamin-rich spring greens:

- chickweed
- chicory
- comfrey shoots
- corn salad
- dandelion
- fireweed
- goat's beard stems
- ground ivy
- lady's mantle
- lamb's-quarters
- mallow
- pepper cress
- pimpinella
- plantain
- purslane
- sheep sorrel

- shepherd's purse
- watercress
- wild garlic
- wild mustard
- wild onion
- winter cress
- yarrow

VEGETABLES AVAILABLE FOR WINTER

The summer with its cornucopia of fruits, berries, and vegetables is followed by fall and winter, when hardy vegetables continue to grow, protected by straw or pine branches in sheltered beds, and the root crops have been piled into earthen cellars to last into the spring. One can be independent of the supermarket and still not have to content oneself with a boring, one-sided diet. Canning is not really as traditional as folksy folks think it is. It was not invented until the nineteenth century, when the French military attempted to supply their armies with food that would not spoil during long, cumbersome transport. Canning destroys many more vitamins than do the older methods of drying or keeping living foods in root cellars. Pickling cucumbers, beets, radishes, and cabbage (sauerkraut) adds vitamin C and flavor to a winter diet.

Here are some vegetables that do well in an adequate root cellar:

- beets
- black oyster plant (scorzonera)
- cabbage (kale, brussels sprouts, red cabbage, etc.)
- carrots
- celeriac, or celery root
- endives and sugarhat
- gobo, vegetable or burdock root

- Hamburg (or root) parsley (*Petroselinum crispum* var. *tuberosum*)
- leeks
- mangel or mangel-wurzel (a kind of beet)
- oyster plant
- parsnip
- rutabagas
- skirret (*Sium sisarum*)
- sunchokes, or Jerusalem artichokes
- Swiss chard
- turnips

Following are some greens that last into the cold season with some protection:

- corn salad, or mâche
- fava beans
- Florence fennel
- mustard greens
- rocket (*Eruca sativa*)
- spinach
- witloof, or Belgian endive

The following vegetables should be stored in a cool, dry place:

- pumpkins
- squashes
- onions

To this list we can add hearty herbs such as horseradish, mints, and comfrey and those grown on a pot in the windowsill (basil, parsley, chives). Sprouts, made by sprouting the seeds of alfalfa, mung beans, radish, mustard, lentils, sunflowers, and others, can

complete the winter menu of the self-sufficient, health-minded family.

Planetary Cooking

Arthur Hermes wrinkles his nose at the thought of eating mushy strawberries or tomatoes at Christmastime. It goes contrary to nature's rhythms and the nutritive needs of our bodies. In his method of planetary cooking, even the days of the week are included into the rhythm. Out of his garden, which is half jungle, half compost pile, he selects vegetables belonging to the moon to be cooked on Monday. Martian vegetables like carrots or peppers are picked on Tuesday, the day of Mars. On Wednesday, it is time to pick Mercurial shoots; on Thursday, root crops and yellow vegetables belonging to Jupiter; on Friday, it is the greens of Venus; and on Saturday, the dark, heavy vegetables belonging to that planet are picked. In this way, the unique quality of each day can be experienced even in food and continues into the mood and meditation of the day.

The actual cooking also calls for lunar and solar processes. The root, harvested the evening before, and the grains, soaked in water overnight (constituting the lunar process), are prepared for cooking. Two thirds of the vegetables are steamed; the other third is quickly fried in the skillet in vegetable oil. This heating is, according to Hermes, the solar process. Sometimes a dish calls for a long simmering process, which constitutes a "ripening process brought to its conclusion." Some of the vegetables are eaten raw as *hors d'oeuvres*.

The old wizard even paid attention to the kind of heat applied. Each wood has its own planetary quality: cherry, willow, or poplar wood provides a cooler lunar heat; oak gives off a Martian heat; beech or pine gives a dry heat that has qualities of Saturn; birch provides a Venus heat. The heat of a gas stove is not of as high a quality as that of a real wood fire, and as far as Hermes was concerned, the heat provided by an electric stove was nothing short

of demonic. In later years, when I became acquainted with Asian and macrobiotic cooking, with their emphasis on steaming, stir-frying, using whole grains, retaining the vegetable water to make a soup appetizer, and other such features, planetary cooking seemed less odd. With these meals, Hermes served herbal teas to “bring the etheric body into the right relationship with the astral body.” His favorites include yarrow, Saint-John’s-wort, horsetail, nettle, and chicory or mint teas. Before the sacrament of eating, the right spirit is invoked with the following words:⁶

*Das Brot vom Korn
Das Korn vom Licht
Das Licht aus Gottes Angesicht
Früchte der Erde aus Gottesschein
Lass Licht auch werden im Herzen mein.*

or

*Erdenspeise, Erdenbrot
Unserem Leibe bist du not.
Wenn wir dich mit Freuden essen
Sei der Himmel nicht vergessen,
Der in aller Erdenkraft
Wunder wirkt und Leben schafft.*

The dining table usually had a vase with flowers on it, and a beeswax candle radiated a golden glow. The planetary vegetables were eaten with whole grains and home-baked bread. The vegetables themselves were sown or planted on the days that belong to their planet. The rye for the bread was broadcast by hand during Saint Michael’s tide (fall equinox) in honor of the archangel and his host, who drove the demons out of the heavens. But, somehow, I harbored the suspicion that for this old wizard hailing from the north German heath lands, it was Donar or Thor, the protector of yeomen and slayer of the Midgard serpent, to whom the Saint Michael’s rye was dedicated. I personally knew hapless sufferers from chronic ills, ranging from constipation and dyspepsia to

debilitating gout, who got better or were completely cured after they took up the planetary cooking of this mountain peasant and herbalist.

Wild Foods

For Arthur Hermes, as for the Chinese gardeners or Native American squaws, there is no rigid categorical distinction between food plants and nonfood plants, between good plants and weeds. Hermes's smoky kitchen was filled with ingredients from field and bog, forest and wayside, as much as from a weedy biodynamic garden. The leaves and roots thus gathered went into soups, salads, and beverages and sometimes into a healing medical preparation.

What are wild foods, anyway? Perhaps they are plants that are no longer, or not yet, grown in a "civilized" setting and commercially exploited. During and after the World Wars, nettle soups, lamb's-quarters spinach, Jerusalem artichokes, and sautéed cattail shoots found their way even onto the porcelain of Europe's *grande bourgeoisie*. A decent, normal citizen of France, even in the most prosperous times, delights in a creamy chervil soup, a heaping portion of dandelion greens with hard-boiled eggs, or the tart taste of a sheep sorrel soup. Those Frenchmen who do not care to gather them in the wild can buy seed packets and sow these "weeds" in their gardens. "Indian foods," such as burdock roots (*Arctium lappa*; Japanese, gobo); arrowhead or swamp potato (*Sagittaria sagittifolia*); a number of water lilies and lotuses (Nymphaeae); Chinese artichoke or root betony (*Stachys sieboldi*); the tubers, shoots, and flowers of the daylily (*Hemerocallis*); the greens of pigweed (*Amaranthus*); the young sprouts of chrysanthemum (*C. coronarium*; Japanese, shungiku), which are added to chop suey and sukiyaki; bluebell tubers (*Campanula rapunculus*); and many others are grown by deft gardeners of East Asia and sold daily on the street markets. There is no reason they would not grow for us. Instead of weeding purslane (*Portulaca oleraceae*) out of our garden beds, we could make a purslane and tomato salad, seasoned with olive oil and basil as the

Aegean Greeks do. With wild mallow leaves we can flavor our chicken broth as the Middle Eastern Arabs do.

Back in the eighteenth and nineteenth centuries, when the Industrial Revolution really got into gear and the masses of factory workers and the soldiers of the mass-conscript armies had to be fed cheaply and effectively, the potato tuber became the staple diet. This tuber from the high Andes is easy to grow, does not need excessive care, and yields more calories per acre than any other crop. Thus, except for the carrot, beet, and radish, other root crops that had been part of the peasant house garden—parsnip (*Pastinaca sativa*), salsify (*Tragopogon porrifolius*), black salsify (*Scorzonera hispanica*), skirret (*Sium sisarum*), root betony (*Stachys sieboldi*), burdock root (*Arctium lappa*), chervil root (*Chaerophyllum bulbosum*), and the evening primrose root (*Oenothera biennis*)—became exiled among the weeds of empty lots and roadsides. A few others, like the Jerusalem artichoke, celery root, Hamburg parsley root (*Petroselinum crispum* var. *tuberosum*), and rutabaga, managed barely to hang on in some forgotten corner of the vegetable garden. Who knows nowadays that purslane, coriander, mustard, marshmallows, orach (*Atriplex hortensis*), angelica, docks, and sorrels were once cared for in garden beds instead of being eyed maliciously as candidates for herbicidal execution? The trend toward “rationalization” of agriculture, the market’s need for storable and easily transportable produce, and the high cost of labor have worked as selective pressures toward creating the boring standardized supermarket vegetables that now dictate our taste buds. A stroll through an Asian or European vegetable market would reveal how much we have suffered from (horticultural) impoverishment.

It would take another book to list some of the good recipes for wild edible plants. Such a task we will leave to other “stalkers of the wild asparagus” like Euell Gibbons. Anyone who has added wild greens, tubers, and herbs to her diet will have noticed how much vitality and new energy she suddenly enjoys. After that, supermarket vegetables and spices will be a real letdown, both physically and in terms of taste. The only drawback to gathering

wild edibles is the danger of poisons in fields, pastures, roadsides, and ditches. Despite disclaimers from the industry, the residues linger even after they have supposedly biodegraded. Even a year after spraying, it does not take a clairvoyant to notice the disturbance of the ecology and of the ethereal forces: there are grossly mutated weeds (diploids), Rosaceae have blanched leaves (chlorosis), more delicate species disappear, and there is a likelihood of insect damage. So watch out!

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CHAPTER EIGHT

*Herbs in Cooking
and Beauty Care*





Arthur Hermes was one of a number of concerned reformers who followed Paracelsus in protesting the selling of harsh imported spices for the sole sake of profit, in disregard of people's health. Planetary cooking avoids such spices as well as excessive amounts of sugar or salt. Unless one sweats like an athlete or foundry worker, salt can constipate, raise blood pressure, and irritate the urinary system.¹ Savory native herbs, capable of delighting our palate with a whole gamut of flavors, delicate to strong, could replace expensive imports. But why do people salt, sugar, and spice up their food the way they do? Too much stress and speed, the tobacco habit, strong alcohol, dentures, processed and quick foods of the drive-in diner and TV-dinner variety, soft drinks—all of this has deadened the taste buds and robbed us of the ability to finely discriminate subtle shades of taste. These blunted receptors want strong spices, pepper, and salt to give some sense of satisfaction. It is like coming from a motor speedway, an artillery duel, or an amplified rock concert and still wanting to hear the chant of the nightingale or robin. It can't be done! The same can be said of good medical herbs. They work gently and kindly. But for someone used to a barrage of Dristans, Anacins, Pepto-Bismals, Roloids, and other drugs that fill the voodoo box above the bathroom sink, these delicate herbs seem to have little effect. Modern human beings will slowly have to train themselves to reawaken to the finer aspects of life and revive their dulled senses.

The following table lists herbs suited for gourmet cooking that can be grown or gathered locally. Some of them are beautiful in the garden and make good bee pastures and nectar sources for butterflies.

Labiatae	Umbelliferae	Compositae	Cruciferae	Rosaceae	Liliaceae	Solanaceae	Others
bee balm	anise	calendula	garden cress	pimpinella	chives	chili pepper	barberry
ground ivy	angelica	epazote (wormseed)	garlic cress	salad burnet	Egyptian air onion	paprika	borage
hyssop	caraway	estragon	horseradish		garlic		calamus
lavender	celery	mugwort	mustard greens			juniper berries	
marjoram	chervil	terragon	rocket				nigella
melissa	coriander	wormwood	scurvy grass				purslane
oregano	cumin	yarrow	watercress				spicebush
peppermint	dill						spiked rampion
rosemary	fennel						
sage	lovage						
thyme	parsley						
	parsnip						

Spices

The ancient Silk Road, stretching from China and India to the Middle East, could just as well be called the Spice Road. Some historians thought that the Romans fought the Parthian Wars to keep this route open. Trade in spices brought wealth to Venice, Genoa, Pisa, and other Italian city-states and financed the Renaissance. After the Turks had blocked the eastern Mediterranean, it was the desire for these exotic plant substances that drove daring, business-minded adventurers, such as Columbus, Magellan, and Vasco da Gama into the high seas, questioning the medieval mythology of dropping off the world or of being swallowed by sea monsters. Oriental spices led to the discovery of America; were responsible for the wars and skirmishes that the Portuguese, Spanish, Dutch, French, and English fought; and led ultimately to colonialism and the new economic world order.

Spices were immensely valuable. The merchants who financed the voyage of Vasco da Gama around the Cape to India were able to earn sixty times their initial investment in the cost of the expedition. In the Middle Ages, one pound of ginger was worth a sheep, one pound of mace was worth half a cow, and one pound of pepper was nearly worth a human being. Pepper was counted out in individual

peppercorns. Cloves, ginger, pepper, cinnamon, and nutmeg traveled from the ports to the market squares of the towns, where fairs were held to celebrate the mass of particular saints' days. So expensive were the spices at these fairs that the poor peasants could only dream, while the richer peasants and town burghers would indulge only on Christmas holidays, when little ginger men, spice cakes, and almond bread were sold at the fairs. The nobility would spend its hoard of gold for the delightful flavors and scents, leading to a depletion of European gold reserves and the completion of gorgeous mosques and palaces in the Orient.

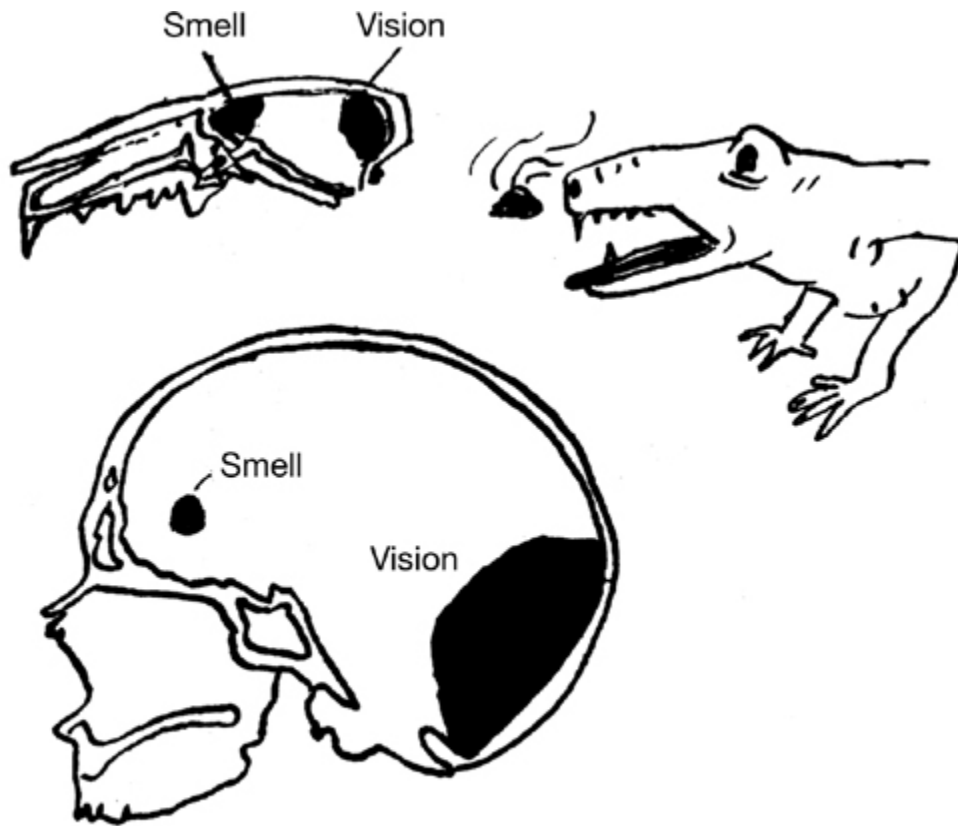
How can one explain this strange desire, verging on madness? Rational historians try to explain that spices were sorely needed to preserve food and to cover the foul stench of rotting food substances—an image that goes along with open sewers, garbage dumped into the streets, and other gross things of the Dark Ages before refrigeration and sanitation. But this was not really such a problem since most food was picked or butchered fresh, and what could not be eaten quickly could easily be preserved by drying (like dried fruits), salting (like herring or pork), or pickling. Hams and fish needed only to be hung on the rafters to be smoked to a golden, flavorful ripeness. While it is true that many spices, such as cloves, are antimicrobial, they are much too expensive to be used only for that purpose.

Other historians claim that spices add zest and zing to an otherwise boring life—most spices not only delight the gullet but also excite the venereal passions. Indeed, such spices as the black pepper have that quality, and in some institutions for the handicapped or insane, black pepper is left out of the menu for that reason. But then, local wise women and midwives had never been at a loss for effective love philters made from indigenous herbs. Spices are appetizers, aiding digestion and the secretion of amylase, neuraminic acid, hexosamines, pepsin, gall, and pancreas secretions—but so are the culinary herbs of the fields and gardens at home. We ask once again, why did spices turn the world upside down?

I think we have to look a little deeper into the physiology of taste and eating and its relation to the soul. Every region in the world has

its seasonings, its special flavor, as part of its folk character, dear to the souls of the people who belong to it. Home cooking, soul food, mom's kitchen and ... ladies, lest we forget: the way to a man's heart is through his stomach!

Taste is, physiologically, largely due to smell. Besides the sense of touch, smell is a primary sense. Next to the sense of touch, the sense of smell is one of the oldest and primary senses. Already in the fourteenth intrauterine week, the taste buds of the human embryo are fully developed. Taste and smell are intimately connected. The fetus tastes/smells what the mother eats and otherwise takes into herself. After birth, the neonate orients itself less by sight and sound than by taking up the scent of the mother's nipples. But not only ontogenetically is it a primary sense. In the long phylogenetic climb of the species from the worm to the amphibian to the reptile and all the way to the mammal, the olfactory organ was primary—literally so, as it is in front of the body. If the clump in front of that nostril smelled right, the jaws hinged open and a gulp followed, passing the second sense barrier, the taste buds.

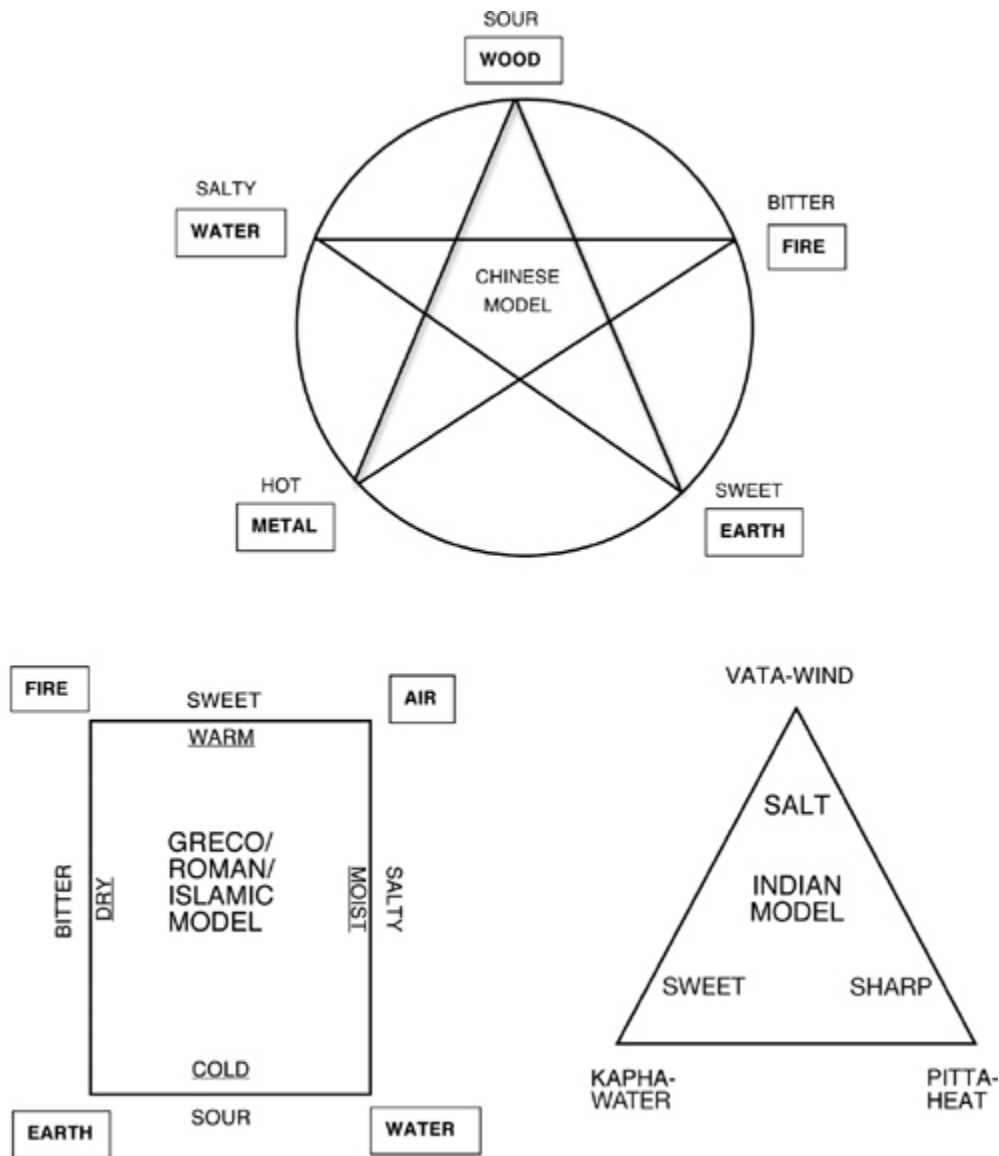


Olfactory and visual centers of the brain

([illustration credit 30](#))

Smell dominates taste and is more differentiated. It grades into thousands of olfactory sensations, which are hard to put into accurate, quantitative terminology. Sounds can be quantified somewhat into decibels and sight measured in wavelengths, but smells defy scientific enumerations, having to be explained in terms of other smells, by analogy and association with previous experiences of one's own nose: "The needles of the ponderosa pine smell like ... mandarin orange peel!" "The juice of the greater celandine (*Chelidonium majus*) smells like ... raw liver!"

The sense of taste is similar, but much simpler. Tastes are few: things taste sour, salty, sweet, bitter (alkaline), astringent, sharp (pungent), or metallic. In folk science they are usually associated with the four (or five) elements.



Folk classifications of taste

([illustration credit 31](#))

Smells and tastes are more inward than sight and sound, less “out there” (objective) and more subjective. They become doors to the unconscious, gateways to the instinct—instinct that whispers, “I don’t like the smell of this” or has us believe “that which smells good, is good.” A rare but familiar smell can take the soul in an instant back to childhood, to grandfather’s cellar, to the fragrance of the hair of one’s first lover, or to a familiar hearth. The priests and hierophants of the great religions make use of this to reach below

the threshold of normal consciousness by dimming the light (sight), lulling the ear with repetitive sounds, and creating a numinous atmosphere with incense. The “holy smoke” of the Catholic, Hindu, or Buddhist priest belongs here as much as do the tobacco or sagebrush fumes of the medicine men and women of the Plains Indians. They all agree: demons stink, whereas good spirits or angels smell sweet. The Hindu will explain that the *gandharvas* (angels) live on the smell of flowers and incense. Great seductresses know of these secrets as well and mellow the unconscious mind of their prey with carefully placed dabs of perfume. Often the odor is based on musk (from Sanskrit *muska* = “testicle”) from the gland of the musk deer or on ambergris, a biliary secretion of the sperm whale often confused with whale sperm. They do not douse themselves like silly schoolgirls—just a subtle dab will do. Jackals and wolves roll in carcasses to communicate to their fellows what they have found—communication prior to the development of words, objectivity, and ego! Pillows stuffed with the hay of sweet clover, cleavers, or woodruff or bed sheets scented with boughs of lavender take the melancholy from the sick and bedridden, comforting them imperceptibly. Perhaps with this in mind we can understand the use of fragrances and spices somewhat better. At the same time, we should remember that locally grown and gathered herbs have many of the delightful qualities we look for.

Herbal Baths

In 1849 a poor student from the Bavarian Forest found out that his cough was tuberculosis, a terrifying disease for which there was no cure at that time. He started taking baths in the ice-cold Danube at night before going to sleep. In this way he cured his illness and rediscovered the *water cure* (hydrotherapy). Later, as Father Sebastian Kneipp, he cared not only for the souls of his parishioners, but also for their physical ailments. He advised the sick to follow wholesome diets, walk and exercise, and live a regular, rhythmical lifestyle, and he prescribed them water dowsings, showers (his

symbol became the watering can), hot and cold baths, sitting baths, saunas, footbaths, and herbal baths. It is the latter that interest us the most: an herbal bath is usually a warm bath containing at least one cup of potent herbal extract. One soaks for at least fifteen minutes. Here are some of the common baths:

- **Thyme**, which is often an ingredient in cough medicine, makes an excellent decongestant bath, relaxing the lungs and bronchi. It has also a diaphoretic and antiviral effect.
- **Rosemary** stimulates the circulation. In anthroposophic clinics Weleda's Rosemary Milk is used in the morning bath as a wake-up, and Lavender Milk, a relaxant, is poured into the evening bath. The addition of **valerian**, **lemon balm**, or **mallow** has a calming effect on nervous people.
- **Yarrow**, which counters inflammation and cramps, is a preferred addition for those suffering from genital-urinal complaints or "women's troubles."
- **German chamomile** has a sedative and antiphlogistic effect. Chamomile baths are good for skin problems such as acne, lupus, ulcers, and frostbite, as are baths with extracts from **oak bark** or **walnut leaves**, whose tannic properties cause the skin to tighten and dry up.
- **Horsetail decoction**, boiled for fifteen minutes and added to the bath, is excellent for cystitis and bladder and urinary complaints.
- Soaking in a piping-hot tub into which an infusion of **hay flowers** has been poured is an age-old Swiss remedy for colds, flu, gout, bladder and kidney trouble, or rheumatism. Hay flowers are actually the barn sweepings from hay that has been cut from a natural meadow and includes dried clover blossoms, flower heads of meadow flowers, and grasses, pollen, stems, and leaves.
- Equally traditional for Alpine peasants is the use of boiled **spruce** or **fir shoots** as a bath additive. A well-known Swiss herbalist, and another priest, the bearded "herb pastor"

Reverend Kuenzle recommends making an extract by cooking these conifer shoots for three hours before pouring them into a bath. For rheumatism, he prescribes a concoction of juniper berries, fern roots, nettles, and hay flowers; about thirty baths make up the entire cure.

- Broken bones and bruised tissue are healed more quickly by soaking in a bath prepared with **agrimony**, **heal-all**, and **comfrey**.

How do these fragrant baths work? The warm water opens the pores of the skin. The health-giving essences seep through this semipermeable membrane, reaching all parts of the inner organism.

Culinary Herbs

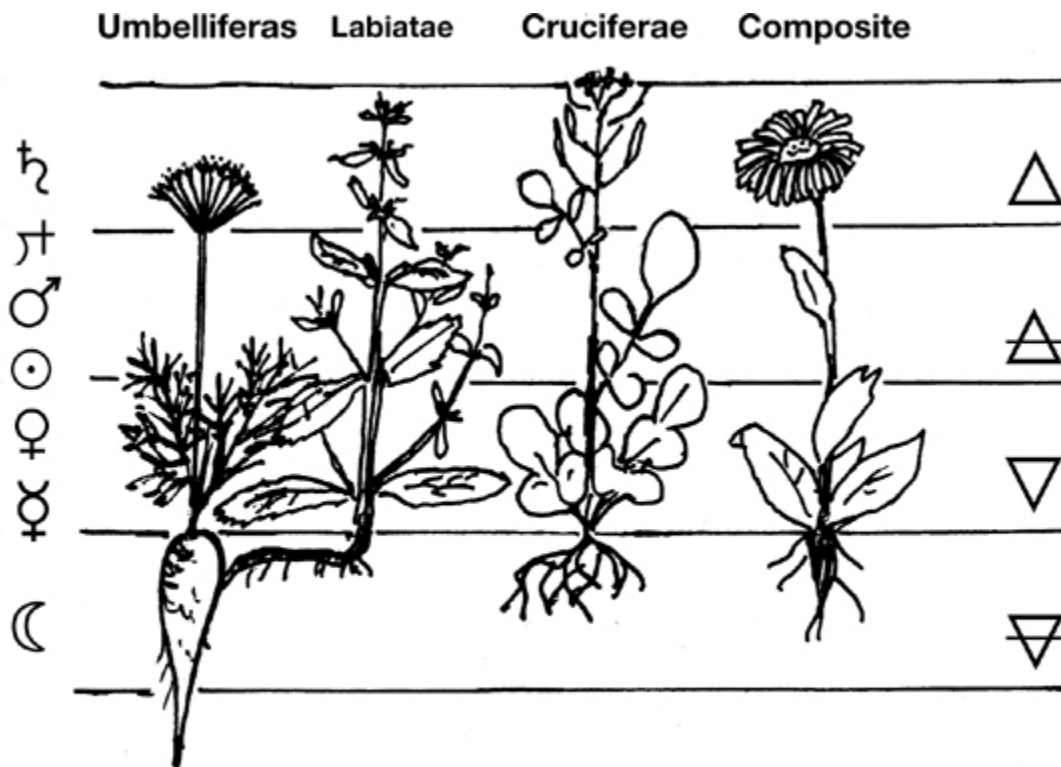
Macrobiotic cooks divide the plants that go into the pot into yin and yang plants. Anthroposophists refer to the same as terrestrial and cosmic, while the older European designation is lunar and solar. The kitchen herbs, easily grown in one's garden or even on the windowsill, are rich in flavors, vitamins, and ethereal oils and have very little bulk. Thus they are yang/cosmic/solar and can be used to balance out the heavy, bulky foods that give us our calories (carbohydrates and proteins) and are derived from the yin/terrestrial/lunar side. The result of combining them is better taste and better digestion. The following chart lists traditional combinations that balance the sun with the moon, the yang with the yin:

Lunar/Yin Foods	made digestible by	Solar/Yang Condiments
cabbage, potatoes		caraway
cucumber, fish		dill
sauerkraut		juniper berries
cheeses		chervil, caraway seed, chives
goose, pork roast		mugwort
beans (dried)		paprika, chili, savory
tomatoes, pizza		basil
pizza, sausages, stews		marjoram, sage, thyme
Lunar/Yin Foods	made digestible by	Solar/Yang Condiments
potatoes, yogurt		parsley
beef		bay leaves, horseradish
omelets, cottage cheese		chives
meats, chutneys		coriander (leaves and seeds)
fish, salmon		fennel
soups		lovage
mutton		mint
roasts, fish		rosemary
green beans		savory
white wine		woodruff

With condiments and culinary herbs, the quality-producing influences of the upper planets (Mars, Jupiter, Saturn) and of the imponderable elements of air and fire bring about a bouquet of aromas, colors, pollens, oils, and sugars. In cold and rainy climates, these qualities do not come out as strongly in the plant—but what a fragrance fills the air of the Mediterranean lands, where wild thyme, lavender, sage, and oregano carpet the sunny mountain slopes! Food

plants, on the contrary, need the etheric influence of the lower planets (the moon, Mercury, Venus) and the elements of water and earth to produce the bulk of leaves, roots, or fruits.

The Labiatae (mint), Umbelliferae (carrot), Compositae (sunflower), and Cruciferae (mustard) families provide us with most of our fine kitchen herbs. Warmth translates itself into the essential, fragrant oils of the mints. But the mints do not store this gift of the sun in the seed or concentrate their aroma in the chalice of the flower, as do ordinary plants—they distribute it throughout their foliage. The Cruciferae are similar. The warmth-producing mustard oils are found throughout the plant, sometimes even penetrating into the root, as in horseradish. The umbellifers, when flowering, literally explode into the light and air. Eagerly they pull the air into themselves, into their hollow, reed-like stems; some, like the water hemlock, even draw the air into hollow pockets in the root. One can say that with this family, the archetypal flowering and fruiting pole (which normally exists at the top of the plant) has sunk down partially into the root: the root becomes fragrant, colorful, and fleshy like a fruit. The carrot, parsnip, and parsley root show this clearly. At the actual flowering pole there is not enough energy left to make fleshy fruits, but only dry, hard, little seeds.



Relationship of herbs to the elements and planets

([illustration credit 32](#))

The composites have not “perverted” the plant archetype (Goethe’s *Urpflanze*) in such an extreme form; but even they show an overeager tendency toward warmth and light. They shoot upward in harmony with the summer sun and turn their heads to face it.

Spices and condiments bring the qualities of the upper planets and the sun’s energy with them and make them available for our bodies and minds. When we drink a hot cup of peppermint or linden-blossom tea on a cold winter’s night, we are actually drinking the power of last year’s summer rays. Condiments and kitchen herbs represent a distortion of the archetypal plant in the direction of the upper planets, warmth and light. Poisonous plants, we shall see later, take the distortion even further.

Herbs for Vinegars, Butters, and Salts

One should thumb through a French cookbook to realize what wonderful things can be done with kitchen herbs. For different seasonings and sauces—sauces are, after all, the secret of the *cuisine française*—herbs can be put into vinegars: basil to make a reddish vinegar, garlic vinegar, tarragon vinegar for fish dishes, vinegar with sprigs or seeds of dill, or vinegar with salad burnet. But one can experiment for oneself.

Herb butters and herbal cottage cheeses, common in Alpine countries, are another delight. Chive/parsley butter (perhaps with anchovies), savory butter, dill/oregano butter, tarragon/thyme/parsley butter—all are delicious on home-baked bread! Various dried herbs, ground with mortar and pestle, can be added to sea salt to make herb salt. Common favorites are basil, oregano, thyme, sage, parsley, coriander, and paprika.

To top off the spring and summer salads with a splash of color, as well as flavor, one can use blue borage flowers, the violet flowers of chives, a few rose petals, or the brilliant orange of the nasturtium blossom. To color soups, butters, cheeses, or stews, calendula flowers will do, as will saffron or turmeric.



CHAPTER NINE

Raising Herbs in the Garden



New sets do ask watering, with pot or with dish,
New sown do not so, if ye do as I wish:
Through cunning with dibble, rake, mattock, and spade,
By line, and by level, trim garden is made.

—Thomas Tusser, *Five Hundredth
Pointes of Good Husbandrie*, 1573



Many herb gardeners, their souls aglow with the joy their charges bring, have put their observations to paper, hoping to give others this key to paradise. I do not want to repeat them here, but just highlight some observations that I was able to make with herb gardens that I raised in Switzerland and in southern Oregon.

It should be obvious that herbs love sunshine, low humidity, and meager soils—all of which work to bring out valuable essential oils. Many herbs, such as lavender, chamomile, thyme, yarrow, and groundsel, are pioneer plants, hardy enough to endure bare, hard, meager soils. Exceptions are, of course, to be found: peppermint, tarragon, bonewell, and lovage like heavier and richer soils, whereas calamus, water mint, and watercress need muck and even-flowing water. Given this, the herb garden is an ecologically diversified affair that includes a little pond or stream and hill beds, along with rocks that store and radiate warmth. The rich fragrances of flowering sages, bee balms, and calendula make the herb garden ideal as a meditation garden: for the mystically inclined, it quickly becomes the home of elemental spirits and the dancing ground of elves.

Soil and Fertilizer

To prepare the garden bed, loosen the soil thoroughly with a digging fork; you may even “double dig”¹—a method to loosen the soil two feet down without turning it—so that the seedlings may establish their roots quickly and deeply. It is important to take

weeds out carefully. Crabgrass and bindweed will regrow from the tiniest root segment and then entangle and choke the herbs. (Herbalists can, however, put the roots of these culprits to good use. Crabgrass, washed and dried, makes one of the best diuretic teas—exceeded only by corn silk. Bindweed roots, also washed and dried, can be added to laxative teas.) The seeds of the mints and umbellifers take much longer to germinate than those of weeds. One insists on weed-free sowing beds. This is achieved by letting the prepared bed rest for about two weeks, during which time many of the weed seeds sprout; then one cultivates to get rid of these weeds.

Water-soluble chemical fertilizer (NPK) is undesirable, as it stimulates bulk production of massive, luscious green leaves. We do not want that bulk. We want quality. We do not want to aid the water and earth elements, as much as the air and fire elements, which are responsible for aromas and essential oils. The best fertilizer is rotted sheep or goat dung. Sheep and goats are the animal complements to the aromatic herbs. Both belong to the biotope of high mountain meadows or sunny, moistureless Mediterranean hillsides. Their pellets form a link in the nutrient chain of plants rich in oils (olives and fragrant herbs). That sheep's wool is itself rich in oil (lanolin) and that goats' milk is fatty can be read as signatures of how these plants and tough, horned animals belong to the same set of planets. Cow or horse manure is, of course, not to be rejected. These manures should be thoroughly composted into an earthy, dark-brown, crumbly, good-smelling substance and then used sparingly in the soil with young seedlings, not with the mature plants. Raw manure or compost in which worms are still active might be all right for cabbages and tomatoes, but certainly not for herbs. Sometimes, a rabbit hutch provides the fertility needed for a family herb garden, and a bee hive, aside from providing pollination for flowering herbs, will create the corresponding astral atmosphere for the herb garden, giving it a golden/purple aura (at least the gardener gifted with second vision would describe it like that!).

All plants need animal dung and droppings, even those of insects, for their proper development. Animal-free agriculture is becoming

increasingly problematic, and a bug spray has no place in the herb garden.² Nor do chemical fertilizers, which bloat the plants with water. When drying the herbs, we will have to dry all that extra water, anyway.

Some herb beds can be “mulched” with sand or even quartz pebbles—the silicon crystals reflect and intensify the in-streaming, etheric, formative forces of light. Heavier herbs, such as comfrey, lovage, tarragon, or shungiku, can be mulched with chopped grass, lawn clippings, or old hay, which keeps the weeds down, conserves moisture, and keeps the soil from splashing the plant during a downpour. The darker the mulch, the more warmth will be absorbed.

Companion Herbs

Plants affect each other through the aromas (pheromones) they give off, through root exudations, or through how they alter the soil around their roots. This is one of the laws that determines the natural composition of plant communities and should be taken into consideration when setting up an herb garden. This section details some of the observations made by generations of observant herb gardeners.³

Some plants are very social; they have a positive, stimulating effect on most other plants around them. Perceptive gardeners often leave them standing and do not weed them out; stinging nettle, yarrow, dead nettle, hemp, and foxglove are among these social plants. Occasionally, a big strong ragweed, ground cherry, nightshade, lamb’s-quarter, or sow thistle is left amidst the vegetable or herb patch as a “mother weed,” as an accumulator of etheric life forces.⁴ Other herbs are definitively asocial and are best off in a bed by themselves: fennel, caraway, southernwood, and mugwort. Good combinations are plants that naturally grow together anyway, such as rosemary, sage, and lavender in the Mediterranean biotopes. Thyme and eyebright like each other. The Bulgarians increase the amount of rose oil in their rose plantations

by interplanting garlic. Anise and coriander like each other. Ragweed aids tobacco. Borage and strawberries make good companions. Franz Lippert, a biodynamic herb gardener from Stuttgart, has shown experimentally that the presence of stinging nettle significantly increases the quantity of volatile oils in other herbs.⁵ Nettles increased the essential oils in angelwort (angelica) by 80 percent, in valerian by 20 percent, in marjoram by 10 to 20 percent, and in sage and peppermint by 10 percent. Other herbs, of course, do not like each other: mustard and nightshades are antagonistic. Don't plant rue with basil or peppermint with chamomile.

Companion herbs can also find their place in the regular vegetable garden. A border of herbs has a harmonizing effect on the garden, often keeping aphids and other insects at bay that might otherwise become a problem. Just as they do on the dinner palate, herbs help to balance the yin and yang of the garden. (More often than not, what grows well together also tastes good together in a food dish.) Here are some good companions that gardeners have observed:

- savory
- basil
- hemp
- garlic
- nettles
- chervil
- pigweed, datura
- onions, chives
- borage
- beans
- tomatoes
- cabbage
- roses

- mints
- radishes
- squash, pumpkins
- celery, parsley
- lettuce, strawberries

Bad combinations are the following:

- dill
- garlic, onions
- Jerusalem artichokes
- carrots
- beans, peas
- potatoes

The use of herbs as bioregulators does not stop here. They can be used as bug chasers and fungus inhibitors. In our village greenhouse in Switzerland, seedlings were saved from damping off and fungus discouraged by spraying chamomile tea or horsetail (*Equisetum*) tea. Garlic and chive extract will have a similar effect, as does tansy macerated for three days and used one handful per liter (quart). Insect-killing brews can be made from the dried leaves and flowers of tansy, chrysanthemum, marigold, asters, marguerites, petunias, nicotianas, cosmos, or coreopsis. But take it easy! Even the bugs have their place in nature's design. Only an emergency can excuse the use of insect killers.

Herb Propagation

Good huswives in summer will save their own seeds
 Against the next year, or occasion needs:
 One seed for another, to make an exchange,
 With fellowly neighborhood, seemeth not strange.

—Thomas Tusser, *One Hundredth
Pointes of Good Husbandrie*, 1573

Some fine herbs are rare, hard to find, or even nearly extinct. It would be a crime to gather them and not see to it that they thrive and multiply. We cannot rely on others (environmentalists or government agencies) to save rare plants. We must take responsibility ourselves by growing them in a suitable environment and then propagating them by exchanging seeds and cuttings. We need not be dependent on the expensive seed packets sold by seed companies that are owned, for the most part, by corporations or oil companies.

Many herbs are started with seed, others by divisions and cuttings. Some are seeded indoors in growing flats to get a good start and are planted after Old Man Winter has retreated back into the mountains. Seed boxes should be kept moist and at room temperature (about 70°F). The growing medium, made of good ripe soil mixed with peat moss and crushed grout (vermiculite made from puffed mica chips, or perlite made from volcanic ash), enables the seedlings to root quickly. Sphagnum peat stimulates root development. While growing, the herbs should be thinned by transplanting them into other flats.

Herbs sown *indoors* are basil, catnip, marjoram, oregano, and thyme.

Herbs sown *directly into the garden bed* are

- anise • garden cress
- borage • marigold
- caraway • parsley
- chamomile • sage
- chervil • salad burnet
- coriander • shungiku
- dill • sorrel
- fennel • summer savory

Cuttings (clones) can preserve rare strains or hybrids. For example, seeded estragon (tarragon) has no punch at all; we must make root cuttings from aromatic stock to get the full flavor. Cuttings are made to root in water; then they are planted in suitable soil.

Divisions are made in the spring while cleaning out the herb beds. One merely breaks the root clumps apart and replants them where one wishes.

Herbs propagated by *cuttings* are

- lavender • rosemary
- lemon thyme • sage
- oregano • southernwood
- pennyroyal • spearmint
- peppermint • tarragon
- winter savory

Herbs propagated by *divisions* are

- bee balm • Oriental garlic
- chives • peppermint
- comfrey • Roman chamomile
- horseradish • spearmint
- hyssop • sweet woodruff
- lady's mantle • tansy
- lemon balm • tarragon
- lovage • Welsh onion
- mugwort • yarrow
- nettle



CHAPTER TEN

The Garden of Hecate



Thou mixture rank, of midnight weeds collected,
With Hecate's ban thrice blasted, thrice infected ...

—Shakespeare, *Hamlet*, 3.2.257–258



Hallucinogens, banes, and poisons are found on the other end of the scale we devised, diametrically opposed to the grain the sturdy yeoman reaps and the loaf that the priest blesses. With these plants, we enter the shadowy Garden of Hecate. Hecate is the goddess of sorcery and witchcraft, who is conjured up where three roads meet or in graveyards in the dark of the new moon. She is one of the Greek triad of Mothers of Vegetation, along with Demeter (goddess of grain and fruit, marriage, and orderly civil life) and Persephone (daughter of Demeter, who personifies the plant soul as it passes from the subterranean realm of Pluto to the upper world of light and back in its yearly growth cycle). Reminding one of Hindu idols, Hecate appears with three faces and four arms that hold a rope, a torch, a dagger, and a snake—terrible to behold! She sends madness and ghosts to haunt people, but also luck in battle and wisdom to councilors and judges. She was the teacher of the arch-witch, Circe, who turned the hapless sailors of Odysseus into swine, kept a tame wolf and a lion as pets, and spent her time singing and spinning. Hecate was also the mentor of that other famous enchantress, Medea, the maiden who helped Jason steal the Golden Fleece. The Argonaut married her, but getting tired of her, divorced her. In revenge, Medea poisoned Jason's next wife with the gift of a gown that turned into flames when the newlywed bride put it on. Medea then flew off into the air in a chariot drawn by winged dragons.

Hecate and her herbs were anathema to decent Christians, as were her sisters: Aphrodite and Artemis, or Mother Holda (Hella) and Freya in the north. Whereas Hecate is associated with the new (dark) moon, Artemis, the goddess of the hunt, childbirth, and wild animals, who never marries and can kill and heal with her darts, is associated with the full moon. The genus of wormworts, mugworts,

absinthes, prairie sage, and southernwoods bear her name: *Artemisia*. Golden Aphrodite, the goddess of love born of the foam of Uranus's severed member that had dropped into the ocean, is the mistress of all plants that create passion and carnal love, the aphrodisiacs.

The latter-day followers of these goddesses were persecuted and banned by the men of the Church, and the simple country folk, who had formerly sought their aid, began to fear them and suspect the carriers of the lore. Witch-banes became popular in the Middle Ages to ban the sisters of Hecate:

Trefoil, vervain, John's-wort, dill
Hinder witches of their will.

Along with the host, holy water, and the rosary, the herbs that the monks and nuns planted in their cloister gardens kept fiends and witches at bay. Among them were angelica (*Angelica archangelica*), which has the power of the archangel Raphael; rosemary, of Our Lady of the Roses; bitter rue, which was mixed with vinegar and given as the last drink to the crucified Savior; mistletoe; juniper; and vampire-banning garlic. And who could say whether or not these plants actually keep the projected astral bodies of sorcerers and other discarnate spirits at bay?

What was not realized was that most of these holy herbs had pagan roots. The Celtic-Germanic-Slavic tribes used evergreen plants, holly, mistletoe, and juniper for banning all manner of evil. To this day, at special seasons, twigs and branches are hung over doorways in the barns in northern Europe for this reason. Rosemary has less to do with the Holy Mother of God as it does with the fertility cult of foam-born Aphrodite. The name derives from the Latin *ros* and *marinus*, meaning "dew of the sea"; to this day, twigs of rosemary are woven into bridal wreaths in Europe to grant love and fertility.

A dichotomy of good plants and staples, associated with benevolent solar deities on one hand, and of poisonous plants, associated with wild, capricious gods on the other hand, occurs

frequently in the beliefs of various cultures. In Greece, it was Demeter and Apollo on the one side and Hecate and Dionysius on the other. For the Christians, it is Lord Jesus with bread and wine on the solar side and Lucifer, the serpent, with his poisoned apple on the other side. In India, we have Vishnu the preserver and sustainer facing Shiva the destroyer. This phenomenon reflects an archetypal dichotomy of day and night, sun and moon, poison and antidote, eagle and serpent, cosmic order and chaos, and centering (integrating) consciousness and differentiating (revolutionizing) consciousness.

Shiva

Shiva the destroyer is the universal lord of the pole that includes the plants we call aphrodisiacs, poisons, medicines, psychotropics, changers of consciousness, lunar plants, and inducers of madness. His iconography shows him dancing ecstatically in a ring of fire, decked with beads and serpents and wielding a trident.¹ This image, filtering through Persia, became our concept of the devil (from the Greek *diabolos* = “the one who throws things into confusion,” or from Sanskrit *deva* = “the shining one”). The crescent moon decorating his unkempt, uncut locks became the horns of the devil. He is akin to the antlered gods of the Paleolithic and the ancient European horned god (Cernunnos) whom the witches in the Middle Ages worshipped. Odin, god of the Vikings, is, like Shiva, a shamanistic god of magic. Odin, “the furious one,” seems to be related to the early Aryan-Vedic god Rudra, “the howling one.” Rudra, who later becomes identified with Shiva, leads hordes of elemental spirits and trolls, much like Odin. One can be sure that the peaceful Christians of the European coasts had no doubt about whom they were dealing with when wild Vikings stormed from their dragon ships with their horned helmets to burn, loot, rape, and pillage.



The god Shiva (Shankar = peaceful,
Shiva = goodly, auspicious)

([illustration credit 33](#))

Shiva might be the devil to the Christians and Muslims also, but to his followers he is Mahadev—the great god. As Bhairava, he is the destroyer of all that is outmoded, rigid, and doomed to pass away. With his fire (and fever) he is the great transformer of all things. With his drum and dance (as Nataraja) he is the giver of ecstasy—the overcomer of cold objectivity, the father of shamans. With his *shakti* (feminine aspect) he celebrates continual lovemaking and unremitting orgasm, being the fertilizer of the universe. His riding animal, the fecund bull Nandi, underscores this aspect. The *linga* (the virile member) is his symbol. But Shiva is not just rage, orgasmic sex, or ecstasy: he is also perfect calm and peace—the eye in the middle of the storm. As Shankar, he is meditative and ascetic, sitting in trance on his tiger skin, enjoying perfect *sat*, *chit*, *ananda* (truth, wisdom, bliss). Shankar's eyes are turned inward, but the

tiger's eyes are wide open, symbolizing awareness in the lower, darker regions of being.

That Shiva is the master of poisons and antidotes is shown not only by the cobras that are his necklaces and armbands but also by his blue neck. When the gods and demons churned the primal ocean, all sorts of marvelous things appeared out of its unfathomable depth. Along with the sacred cow, milk, butter, wine, the tree of paradise, the heavenly nymphs (*apsarasas*), the lovely Lakshmi (born of the foam like Aphrodite), and the nectar of the gods, there arose also a poison so terrible that it could destroy the world. Shiva volunteered to drink the evil brew to save the world, and that is what caused his neck to turn blue. Henceforth he became known as Nilakanta, "the one with the blue neck." In India, Shiva is worshipped as the Supreme Being alongside Vishnu, who is associated with the sun, daylight, ordered and civilized life, and the normal mode of consciousness. Like that of his Greek counterpart Zeus, Vishnu's animal is the eagle. In contrast, serpents, dogs, bulls, and feral animals like tigers belong to Shiva.²

In the West, God is worshipped only in his daylight aspect. The lunar, magical, destructive, "negative" side of Being is suppressed, cast into the utter darkness of the unconscious, and takes on truly satanic proportions there. Our cultural attitude toward mind-altering or mind-expanding drugs, ecstasy-producing substances, and offbeat herbs and mushrooms is explainable against this background. With this in mind, we can better understand the food taboos and restrictions that different cults, sects, and societies impose upon their members. The continuum stretching from the God who is the staff of life to the God of dangerous lunar plants is a continuum from the integration of consciousness to its dialectical opposite, the disintegration of existing, established consciousness. The functionaries of the two polar ends are the priests on the one hand and the shamans, witch doctors, and medicine men on the other. Puritanical Christians (and Buddhists, Muslims, etc.) condemn not just drugs, but often also spices and mind-dulling alcohol. Old druggies, burned out on Shiva's realm, are drawn to puritanical sects such as Hare Krishna (ISKCON), the Moonies, fundamentalist

Christianity, or macrobiotics. Macrobiotics' founder George Oshawa, with his promotion of whole grains and salt, is definitively on the side that stands for integrating consciousness. On the other hand, magicians, fools, beggars, artists, hippies, and other such friends of Shiva are likely to indulge in magical herbs. For some of his followers, nothing is to be rejected—is not everything an expression of God's essence?—even the charred flesh of corpses from the funeral pyres along the Ganges is stolen and eaten!

With this as a background, let us tiptoe into Hecate's garden (Hecate being the Greek version of Shiva's dark female consort, Kali) and look, marvel, and wonder at this bizarre world beyond the threshold of bourgeois normalness.

Some definitions first:

- **Bane:** The old Anglo-Saxon word for poison is bane, hence the name of many toxic plants, such as baneberry, wolf's bane, henbane, and so on. To bane meant to wound, kill, or poison.
- **Drug:** This word is not derived from the Persian *drug* (a demon of lies), as some conservatives might want to think, but from a much less dramatic source. Drug is derived from the Middle Dutch *droge*, meaning “dry,” referring to dried herbs.
- **Entheogen:** The concept, derived from the Greek/Latin *en* (within) + *theos* (god, the divine) + *gen* (creating, generating), is a neologism used by ethnobotanists to designate psychoactive herbal substances that allow the divine to manifest in us. The scholar Carl Ruck coined the term in order to set it apart from the term *hallucinogen*, which implies insanity or delirium.
- **Hallucinogen:** This word comes from the Greek *halyein* (to be distraught, to wander).
- **Leechdom:** This is the old English concept of medicine, derived from the Anglo-Saxon *laece* (Middle English *lechen*), meaning to remove illness by magic spells and the smearing on of healing substances. It has nothing to do with the application of bloodsucking Hirudinea worms. The *leech* is the physician who

practices *leechcraft* (which includes wortcunning) and applies his *leechdom*.

- **Pharmaceutical:** The Greek word *pharmakon*, from which we get words like pharmacy, pharmacopoeia, and pharmaceutical, means “medicine, potion, charm, or drug.” It incorporates the double nature of potions—positive and negative, poison and antidote—as symbolized by the two serpents twining up the staff of the caduceus and facing each other.
- **Philter** or **philtre:** This is a love potion, or **aphrodisiac** (from the Greek goddess of love Aphrodite), and the word is derived from the Greek *philos* (to love).
- **Poison:** From the Latin *potio* (drink), a poison is most conveniently given (the German word for poison is *Gift*, something given) as a drink or as a powder mixed into the food. Poisoning was a common way to get rid of powerful rivals, so kings and potentates often employed food tasters to sample each dish served. Renaissance poisoners, such as the illustrious Borgias and Medici, were masters of the art. For example, they would give treated rings or napkins to their victims while being able to retain perfect etiquette and charm. Women favored the use of poisons as they could easily mix them into food or drink, making the appearance of a natural death. Autopsies were not performed in those days.
- **Toxin:** This concept derives from the Greek word *toxon*, meaning a bow and arrow. Originally a toxic substance was an arrow poison. Related is the Latin *taxus*, the generic name of the poisonous yew tree from which arrows were made.
- **Venom:** This refers to poisons of animal origin. The Latin *venenum*, related to *venus*, is a drug, poison, magic potion, or charm that arouses ardent desire.

The Concept of Poisonous Plants

The concept of a poisonous plant is relative. Even popular food plants can be serious poisons. The green bean contains cyanide, as does the cassava, a South American staple from which tapioca is made. Cooking and other processes neutralize the poison in these cases. In some plant species, one part might be poisonous, another part wholesome. The potato, except for its tuber, and the tomato, except for its berry, are very poisonous, containing solanine, which produces symptoms of nausea, scratchy throat, fever, and diarrhea. In all parts except for the ripe fruit, which has a delicious strawberry-like flavor, the mayapple (*Podophyllum peltatum*) contains a toxic resin causing severe stomach pain, vomiting, low blood pressure, dizziness, and eventually coma. Indians and hillbillies know how to use it as a laxative and liver tonic, to get rid of warts, and against cancer. Pokeweed (*Phytolacca americana*) shoots are a palatable spring dish, but later on in the year the leaves, stems, berries, and especially the roots contain a saponin that causes cramps, difficult breathing, sweating, salivating, dizziness, weak pulse, and possibly even convulsions. The castor bean (*Ricinus communis*) contains one of the deadliest toxins known. Three castor beans can kill a child. In its pure form, the castor bean's ricin is so lethal that it was used a few years ago in the umbrella-tip murder of a BBC correspondent on a London street. Yet castor oil, pressed from the seeds, is one of the safest cathartics for cleaning the intestinal tract.

Caution: Unless we are gifted with second sight, we “normal” human beings do not have the instinct to know which plant or plant part is poisonous and which is not. During the millennia, our animal instincts have gradually been replaced by a cultural response, that is, learned behavior patterns that are ordered and monitored by the intellect. Even if we have hunches, it is a good idea to check with wortcunners or with a good, illustrated

taxonomy book. Before using any plant, there must be positive identification!

Since most plants are *not* poisonous, it is smart to learn, first of all, the poisonous species and their properties. (The same rule applies for toadstools and mushrooms.) After one has mastered the poisonous plants, one approaches the rest with much greater confidence. After so many years, the “surface knowledge” sinks deeper into one’s soul. After one becomes wise to the plants in their stages from shoot to fruit, one’s instincts awaken anew. One can look at a particular plant and have a relatively clear notion whether it is toxic or not. The signatures become readable at this point. Heavy, unpleasant odors, unusual growing habits, and features such as brilliant scarlet, deep-purple, or ink-black berries make one cautious. Tasting a tiny morsel of the plant in question (on an empty stomach) and then carefully observing the body’s reaction is a way of scouting out the plant’s hidden nature (but note that with poison hemlock, even the smallest amount is deadly poisonous). Our sense of taste tells us to avoid unpleasant, acrid, and bitter tastes—bitter often being an indicator of alkaloids.

What to Do When Poisoned

When symptoms appear, first of all, it is important not to panic. Panic and fear rev up the sympathetic nervous system and can amplify the ill effects, making a mountain out of a molehill by means of selective (hysterical) perception of the pulse, respiration, and other body functions. This panic reaction explains why the symptoms of toadstool poisoning are much more severe in England, where mushrooms are generally feared, than in Eastern or Central Europe, where many mushrooms are eaten. According to the FDA’s

National Clearing House for Poison Control Centers, in a typical year (1975) only 186 people were hospitalized and only three people died because of poisonous plants.³ Admittedly, tens of thousands of people have suffered from ill effects of plants, recuperated, and never reported it.⁴ But compared to the figure of highway car accidents per year (50,000 per year, or as many U.S. soldiers who died in the Vietnam War), this is minimal. One ought to fear cars more than eating or using wild plants. The same, of course, goes for snakebites, which kill only a couple of hundred people per year. In either case, the problem tends to be primarily psychological—one of projecting one's inner fears and dreads into the “wild” things of nature. But if a poison has really been eaten, these steps should be taken:

1. Empty the stomach as soon as possible. Tickle the throat with a feather and give an emetic, such as warm vinegar or mustard water, or two tablespoons of syrup of ipecac (an emetic made from a South American plant). If the victim is very drowsy, it is better not to induce puking because he might choke on his vomit. After vomiting, lots of water should be drunk to flush and dilute the toxin.
2. To lessen the absorption, activated charcoal (20 to 50 grams in a glass of water) should be taken.
3. For most alkaloid poisoning, tannins, as found in a cup of strong black tea, will help bind the alkaloid. For cyanogenetic toxins (cherry, peach, or plum pits), vitamin B₁₂ (also called cyanocobalamin) is helpful in the amount of fifty times the amount of cyanide.

A “universal antidote,” or mithridate, mentioned in so many old herbals, does not seem to exist. The name mithridate goes back to the king of Pontes (Asia Minor), Mithridates VI (120–163 BC), who from childhood on made himself immune to the danger of being poisoned by drinking the blood of ducks that had been fed sundry toxic substances. This Asian king lived a long life and did not die

until he plunged onto his own sword to escape capture by the Romans.

Understanding Poisonous Plants

Plant poisons are *not* defenses against hungry hordes of bugs and herbivores eager to devour the helpless vegetation. The theory that poisons are primarily defense mechanisms seems to say more about the Darwinian fantasies of timid academicians than it does about the nature of Mother Nature. We have seen how quickly, because of their simple metabolism, insect populations have become immune to DDT and other insecticides. Besides, the majority of plant species is doing fine without resorting to chemical warfare. To add to that, any peasant can tell you that grazed pastures grow better than do ungrazed pastures. Plants and animals are not enemies. Nature is coevolution, not a merciless struggle of each against all. Plant toxins are end products of life processes, which are stored in the plant in the absence of excretory organs. They are wastes neutralized by organic acids to form salts.

There is another way to understand plant poisons when we try to see the place of the plant in the grand *scala naturae* of Aristotle. Plants mediate between the “dead” mineral kingdom and the animal kingdom. They grope into the mineral world with their roots, drawing up water and dissolved salts, which they “enliven” by the use of cosmic, solar energy. In its flowering and fruiting phase, the plant meshes with the animal kingdom, with bees and butterflies, whose bodies fit perfectly to the flower. In its fragrance, color, and the insect-like mobility of flying or clinging seeds and pollen, the plant becomes itself somewhat animal-like so that it can be poetically said, “The flower is a fixed butterfly, and the butterfly is a flying flower!” In its archetypal plant being, with its flat leaves opened up to the atmosphere and cosmos, the plant has no inner organs that might betray a rudimentary inner life of sensation, a soul. But in the flower crown and fruits, it seems to make that attempt. This attempted leap over the threshold into the

animal/astral/soul world collapses albeit quickly; its etheric energy spent, it has to return to the earth as a seed, where it draws new vitality to start its cycle anew.

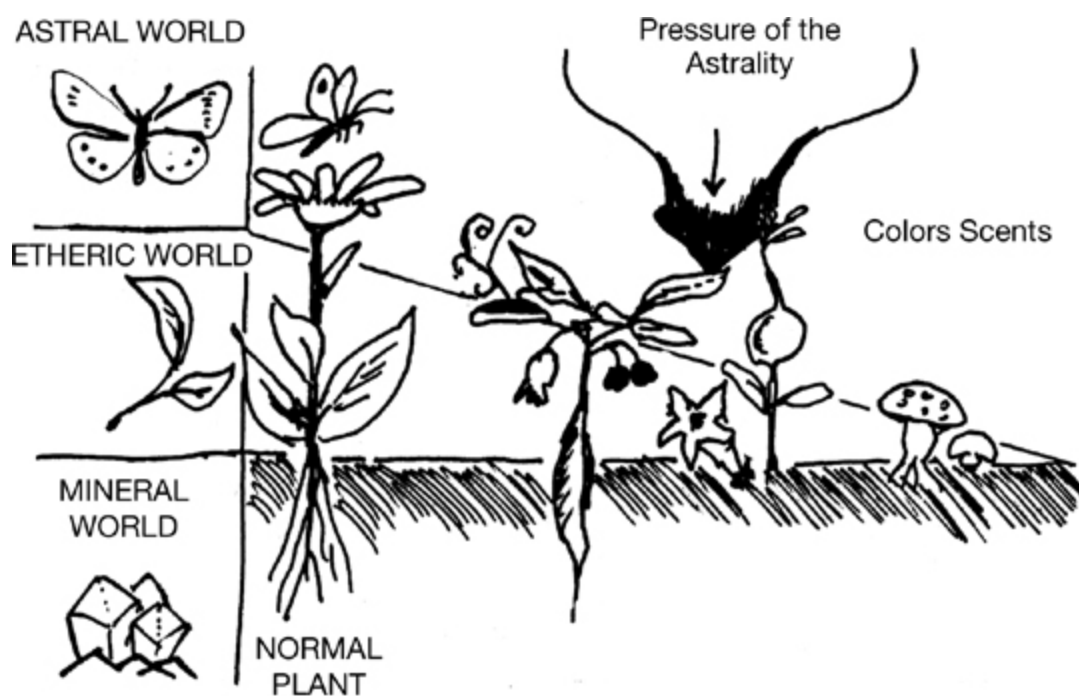
Both plants and animals begin as a fertilized ovum, which grows into a round ball of cells (blastula). The plant blastula simply differentiates as it develops. With animals, even primitive ones like the sponge, something different happens. The blastula starts indenting, forming an inner hollow space, which will eventually house the organs.

Plants do not develop inner organs. The outer universe, the macrocosm (elements, weather, season, cosmic radiations, animal excretions), works upon the plant as external vectors, replacing the organs. Of course, such external vectors work powerfully on the animals also, but the further one goes up the phylogenetic scale, from worm to mammal, one finds ever more “impulses” coming from the inside of the organism. We can interpret this as an evolutionary progression from the macrocosm toward the formation of microcosm. It constitutes an involution, a turning inward of the outside universe. This involution leads to the development of an inner world of sensations, feelings, emotions, sympathies, and antipathies; in short, it leads to the appearance of soul (Latin, *anima*). That is why we attribute incarnated souls to animals. They are truly animated. For plants, on the other hand, the soul forces work from the outside. Where from the outside? The ancient mystery teachings tell us: from the asters, the stars and planets! The scholars of old then looked for correlations between the seven visible planets that work on the plants and the seven major organs inside the microcosm.

How does this relate to our subject of poisonous plants? With these banes, we find plants that, more than the ordinary species, have “taken into themselves too strongly the astral impulses” and “are eager to skip beyond plantdom to become animals” (Rudolf Steiner). They have overreached their manifestations as purely ethereal beings.

“Ordinary” plants have a normal yearly development. They bud in the spring, grow vigorously into the summer, and climax in making

fruit and seed in the fall. Then the next year, the cycle starts again—a faithful mirroring of the dynamic interaction of earth and sun in the yearly cycle. Most poisonous plants fall out of this cycle. Like the shamans and witches who use these plants, their habitus is unusual and bizarre. The Christmas rose (*Helleborus niger*) and witch hazel, for example, bloom atypically in the dead of winter. Meadow saffron and mushrooms liberate themselves from the sun's rhythms by hiding in the ground most of the year. Mushrooms—marvels of psychedelic, phytotoxic chemistry—do not even bother to make green leaves, living animal-like as saprophytes or even parasites on other living matter. Only periodically, when a moist moon awakens them, do they shoot out of the dark subterranean realm and manifest a “flower head” of dramatic form and color.



Incarnation of astrality in poisonous plants

([illustration credit 34](#))

Astral forces stifle the burgeoning etheric vitality of plants. This becomes clear when we look at the normal plant as its vigor and vitality (etheric forces) wane as it approaches flowering and

fruiting. When it touches the realm of pollinating insects—the threshold where external astrality becomes internalized astrality—the plant has exhausted its potential; it is at the end of its vegetative cycle. When looking at families of common poisonous plants, it becomes clear that flowering by no means spells the end of the active growing period. In many Leguminosae, nightshades, or spurges, the astral forces continue to impinge themselves heavily and deeply into the vital, etheric processes. Such strong astrality can overpower the plant's natural vertical tendency, stunting its stems, twisting it into vines, or, as in spurges, imposing an absurdly rigid geometry.

As the astrality manifests itself more strongly, the plant might even take on animal-like features, becoming insectivorous or producing organ-like appendages, such as galls. The California pitcher plant or cobra lily (*Darlingtonia*) has a cobra-like head, red as a crab, which serves as a funnel to trap insects. The sting of a gall wasp on an oak leaf is a good example of astrality impressing itself onto the vital etheric structure of a plant, forming a red or yellow, hollow organ called a gall (in which the wasp larva develops). When a plant's etheric strength is down, due to lack of water, infertile soil, or the coming of the cold season, astrality will press more heavily upon it, causing the leaves to change color and making it susceptible to insect damage. Bright colors, gall-like structures, and unusual growth features are the rule in poisonous plants. Other animalistic (astral) signatures that mark the plants of Hecate's garden are penetrating odors, fuzz and hair, greatly involuted funnels of the corolla, and, of course, toxins.

Lower animals also produce poisons. Bees, wasps, and a number of other insects, along with sea invertebrates, spiders, fish, toads (in the skin), and reptiles (in the fangs), do so. Animals evolved beyond the stage of the reptiles are without poisons.

We can formulate that plant-like animals, at the lower end of the evolutionary scale, produce poisons, as do animal-like plants. We see that “poisons” are formed on the threshold where etheric and astral realms meet, where the two intermingle and are not in harmony with each other. This statement takes us right back to our

etiological proposition: when people are sick, it is generally the result of an inharmonious relationship between their etheric (vital, energetic) components and their astrality (emotional states, such as strong hates, desires, passions, unfulfilled wished, etc.). Plants that exhibit an unusual relation between the etheric and astral forces are thus the proper means of healing. Now we can understand why, besides the many herbs, there are a number of creepy, crawly things in the Chinese apothecary. The dried toad is indeed a good remedy for dropsy; its skin contains bufotoxin, a heart-effective steroid similar to foxglove. Bee stings have a similar effect on rheumatism as nettles, due to the formic acid content. Other poisonous insects and invertebrates provide similar effective medicine. The brews of the witches did not, after all, stop with herbs either, but included all kinds of “vermin.” When it is claimed that they used grease from Christian babies for their salves, we are being duped by the propaganda of the inquisitors.

According to Rudolf Steiner, the chemical elements are the physical carriers of the creative, formative principles of the universe.⁵ Carbon and oxygen are the carriers of the physical and etheric forces, respectively—without them, life as we know and define it would not be possible. Nitrogen is the anchor of the astral forces on the physical plane. The chemical composition of plant substances is mainly carbon, oxygen, and hydrogen, mirroring the fact that 97 percent of the plant substance is made of carbon dioxide (CO₂)—the gas we breathe out—and water (H₂O). Other elements are catalysts or are in transit through the plant. Animals, on the contrary, contain in addition to C, O, and H, a greater quantity of nitrogen (N₂), in the form of amino acids and proteins. In order to deal with nitrogen metabolism, renal organs of some kind are part of animal anatomy.

As we might expect, our “abnormal” toxin-producing plants have a more active nitrogen metabolism. Nitrogen is not just in transit or concentrated as protein in the seed, but it accumulates in the tissues and is stored as alkaloids. Alkaloids have a similarity to “degenerate” amino acids and proteins. Rudolf Hauschka, founder of

the Swiss pharmaceutical company Wala, illustrates this by comparing the crude formulas of the following representative substances:⁶

ordinary protein	C ₇	H ₁₁	O _{2,5}	N ₂
caffeine	C ₇	H ₉	O ₂	N _{3,5}
atropine	C ₇	H ₉	O	N _{0,5}
morphine	C ₇	H ₈	O	N
strychnine	C ₇	H ₇	O	N
nicotine	C ₇	H ₁₀	—	N _{1,5}
cyanide	C ₇	—	—	N ₇

Hauschka picked this series to show a degenerative process—the dropping of the hydrogen and oxygen, the very stuff of life—proceeding into the direction of the ptomaines, cadaverines, putrescines, and other products of decay.

Alkaloid-bearing plants, with their unusual relation to astrality, would affect human beings in all aspects that have to do with our own astrality: some just numb and make one dumb (anesthesia and analgesics); others can affect sexual desires as aphrodisiacs or inhibitors; still others cause dullness, excitability, or dizziness or act as psychotropics. All of these are, indeed, aspects of soul functions, or astrality.

The Most Common Poisonous Plants

The few deaths or severe intoxications that do occur are usually due to the following culprits, starting with the most dangerous one:

- **Death angel** (*Amanita phalloides*) is often mistaken for the tasty field champignon (*Agaricus campestris*). The symptoms start eight to twenty-four hours after ingestion. When they start, it is

too late: the liver is already destroyed. One death angel will do the trick.⁷

- **Hemlocks** (Apiaceae)
- **Poison hemlock** (*Conium maculatum*) kills by paralyzing the nerves, lungs, and muscles. This biennial umbellifer, with purplish splotches on the stem and an unpleasant odor, has the notoriety of having killed Socrates (399 BC). The council of the elders of Athens condemned the philosopher to a draught of hemlock juice for misleading youths into doubting the gods. As the nicotine-like alkaloid coniine took its effect, Socrates felt “the cold of Hades” creeping up his legs, but his mind stayed clear until the end.
- **Water hemlock** (*Cicuta maculata*) belongs to the same family of umbellifers and is equally poisonous. Careless natural food collectors have, at times, mistaken the root for that of the wild parsnip or artichoke root with the following results: stomach pain, nausea, violent vomiting, diarrhea, dilated pupils, labored breathing, frothing at the mouth, weak and rapid pulse, convulsions, and possibly even death. A walnut-sized root can kill a cow. Medically, the water hemlock is made into pharmaceutical preparations for rheumatism, gout, and cancer.
- **Fool’s parsley** (*Aethusa cynapium*) is a third dangerous member of this family. The careless picker could mistake it for parsley.
- **Nightshades** (Solanaceae)
- **Deadly nightshade** (*Atropa belladonna*) contains the tropane alkaloid atropine. Atropine is named after the Greek goddess of fate who cuts life’s thread. Ten of the black berries can be deadly. Symptoms are thirst, headache, nausea, vertigo, dilated pupils, mania, muscular paralysis, and death.
- **Jimson weed, devil’s weed, or thorn apple** (*Datura stramonium*) may, in the hands of a competent witch doctor, open the “gates of perception” to the inner astral world, but in the hands of the amateur it might lead to madness or death. The symptoms proceed with a dry nose and mouth, widened pupils, blurred

vision, and hot skin. The sweat glands and saliva glands stop their flow, and hallucinations and coma may follow. Robert Beverly, in his *History and Present State of Virginia* (1705), gives an account of colonial soldiers who cooked themselves a mess of “Jamestown weed” and went crazy for eleven days:

The effect was very much like a pleasant comedy: for they turned natural fools upon it for several days. One would blow up a feather in the air, another would dart straws at it with much fury; another stark naked was sitting in a corner, like a monkey grinning and making mows at them; a fourth would fondly kiss and paw his companions and sneer at their faces, with a countenance more antic than any in a Dutch droll ... A thousand simple tricks they played, and after eleven days returned to themselves again, not remembering anything that had passed.⁸

The account seems a bit exaggerated, for the effects could not have lasted that long, and most “users” remember their experiences very well. An overdose will lead to death.

- **Crowfoot** (Ranunculaceae)
- **Monkshood** (*Aconitum* spp.) and **larkspur** are two examples. Monkshood, so called because of its hooded flowers, is otherwise known as wolfsbane because it was used to poison wolf bait. It has been referred to as a vegetable arsenic. The tattooed warriors of ancient Britain used it to poison arrows. According to Greek myth, Hecate created aconite from the slobber of the ugly, three-headed hellhound, Cerberus. It is reported that on the Greek island of Kos, feeble old men, no longer of use to society, were condemned to drink a swallow of aconite brew—classical gerontology!

The alkaloid aconitine is so powerful that one fiftieth of a grain (1 grain = 65 mg) will kill a sparrow; a tenth of a grain (6.5 mg) will do in a rabbit within five minutes; and if the juice from the root gets into a scratch on human skin, the whole body will be affected. Symptoms are numbness of tongue; tingling in the mouth; the feeling that ants

are crawling all over the body; labored breathing; cold, clammy, pale skin; irregular heartbeat; and finally death. The antidote is—as is frequently the case—another poison: digitalis or atropine injections, along with emetics, diluted brandy enemas, and artificial respiration.

- **Baneberry** (*Actaea* spp.), also called herb Christopher or rattlesnake herb, belongs to the crowfoot plants. Some species have white berries (*A. alba*), and others have red berries (*A. rubra*). The red berries mixed with alum provide a black dye. Like larkspur, baneberries affect the heart. Six berries will increase the pulse and cause dizziness, burning stomach, and colic. The plant, called Sweet Medicine, was most sacred to the Cheyenne. The dried root was found in all medicine bundles, and bits of root were ritually chewed by the priests at the ceremonies, but of course never swallowed. Nursing mothers drank a tea of the root to increase milk flow and make their children bright and strong. Sweet Medicine actually had been a prophet and hero, who turned his power over to the plant before leaving the Cheyenne, telling them, “This is my body. Do not forget me.”
- Some noxious members of the **cashew** family (Anacardiaceae) are not fatal but are extremely irritating for many people. Of **poison ivy** and **poison oak**, belonging to the genus of *Toxicodendron*, it is said, “Of leaves three, let them be!”
- **Poison sumac** (*Toxicodendron vernix*) belongs to the same tribe and causes red, itchy skin that turns into puffy, watery blisters. These symptoms are brought about by the body’s allergic reactions to the semivolatile oil urushiol. Cashews and mangos, belonging to the same family, also cause skin irritations. Cashew pickers in India must wear protective clothes to avoid poison ivy-like rashes, and during the mango season at the hottest time of the year, people get “prickly heat”—for which the heat gets the blame, not the skins of the delicious mangos!

According to an old folk belief, the cure is never far from the source of illness. In the case of poison ivy, this is true. In the many thickets of the eastern woodlands, next to the poisonous vines, grows the pretty, little, orange jewelweed or touch-me-not (*Impatiens capensis*, *I. pallida*), which will relieve the itching when its juicy stems and leaves are crushed and rubbed on the skin. The jewelweed also helps against athlete's foot, having fungicidal properties. In the western states, the gumweed or tar-weed (*Grindelia squarrosa*), a sticky, balsamic-smelling, yellow flowering herb, provides a tonic better than calamine lotion. Leaves, stems, and flowers of the grindelia put into cold water, brought to a simmer, and left to cool will make a fragrant concoction that soothes the irritation. Tannins, as derived from oak galls or oak bark, are also soothing for poison ivy because of their astringent nature.

- **Pokeweed** (*Phytolacca americana*), so named because the Algonquins used the berries for making a red dye (Algonquin *pakon* = red blood), is prized for its young shoots, which are eaten like asparagus. All other parts of the plant contain a poisonous saponin and alkaloid (phytolaccine), which acts as a slow-acting emetic, causing vomiting after two hours and leading to spasms and difficult breathing. Though birds may eat the juicy, purple berries, human beings and other mammals may not! Appalachian mountain folks have learned from the Cherokee Indians to use the pokeweed root for treating skin diseases, piles, and even cancer. A pokeberry wine is brewed and taken by the teaspoons for rheumatism.⁹ Despite its poisonous nature, hillbillies love and prize the plant. There is even a song, "Poke Salad Annie," which no less a singer than Elvis made popular. Poke greens, poke "salet," and poke soup are a sure sign that it is spring in the Appalachians, and Southerners love them as much as the Irish love their corned

beef and cabbage or the Russians love their borscht. Currently, scientists are experimenting with the molluscicidal properties of the plant in hopes of finding a marketable slug killer.

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CHAPTER ELEVEN

*Women's Culture
and Witches' Craft*



'Twas midnight ...
'Tis the hour
That scatters spells on herb and flower
And garland might be gathered now
That turned around the sleepers brow.

—Thomas Moore, *Light of the Harem* (1817)



Herbalism, like gardening and cooking, seems to have always been the special province of womenfolk, just as hunting, herding, and warfare were the men's domain. The potsherds, bones, and bits of charcoal dug up by archaeologists, as well as comparative studies of contemporary tribes by ethnologists, indicate that this is an ancient and universal pattern. There is little need to theorize about an ancient matriarchy of free, promiscuous, polyandrous women who reigned until they were overthrown by the oppressive male patriarchy to explain the origin of women's culture and craft. Already more than a million years ago, foraging bands, tied into the seasonal rhythms of their natural environment and linked to each other by close blood bonds, divided their subsistence activity in the most practical manner. The women, carrying infants in their bellies and on their hip or shoulders, did most of the gathering while the men, with somewhat stronger muscles and longer strides, did most of the hunting. Recent studies of food-collecting tribes show that the women's foraging of roots, nuts, berries, and green edibles constitutes the bulk (about 80 percent) of the food eaten in those societies. The meat hunted by the men, which makes up most of the available protein, is ceremonially distributed among the members of the band according to patterns determined by kinship. Meat is something special, whereas the tubers and vegetables belong to the daily routine and the immediate family hearth.

This division of labor continued with horticultural tribes. Men continued to hunt—game as well as heads—while women (who are usually organized into matrilineal kin groups, as in the Iroquois)

cultivated the plots to grow the staples. Even in advanced agricultural societies, the division of tasks continues along these lines: women take care of house and garden, of children and small animals, of spinning, dying, and weaving, and the household medicine; while their husbands take care of herds, plow the big fields, and engage in politics and external affairs.

Thus, in the course of many hundreds of thousands of years of cultural evolution, something of a woman's culture and a man's culture has developed, being passed from the elders to the young with each generation. The boys, leaving their mothers' apron strings, were initiated into men's culture by elders, shamans, and priests, being taught the tribal lore concerning use of weapons for war or hunt, tribal law, and the esoteric knowledge concerning the supernatural. Often such initiations involved physical trials to test the courage and stamina and the use of masked dancers or psychedelic drugs to create a numinous atmosphere conducive to the passage rite. For their sisters, the initiations were generally more gentle and gradual, and they would learn from their mothers, aunts, and grandmothers the lore of women's culture. From childhood on, they would become familiar with the nature, properties, and whereabouts of edible, medicinal, and magic plants and would learn the secrets concerning women's life relating to love magic, fertility, birth, weaning, menstruation, lactation, and so forth. This knowledge, practical as it was, was not presented in scientific terms or models but was clothed in the rich ornamentations of legend, myth, and folklore. Those women who were so especially gifted that it seemed as though the goddess (spirits or angels) herself were speaking through them and teaching them became known as the wise women, *sages femmes*, or witch women.

In some areas of Europe, however, in order to avoid the radical splitting of esoteric knowledge along sex lines, rules were implemented so that formulas for healing the sick should be passed in secret, with witness, from a man to a woman and from a woman to a man.

Sex Magic

For the male of the species, sex is a simple and direct affair. It starts with the excitement of the imagination that the sight of a (young, beautiful, helpless, or whatever) female arouses—even a picture, such as a Playboy foldout, will do—and ends with the ejaculation of semen. For a woman, the act of coupling is only the beginning of the sexual experience: added are nine months of gestation, parturition, and perhaps one to three years of suckling the infant. Even from the viewpoint of the external physiognomy, sex is a much more inward, deeper experience for a woman. Giving birth and nursing are a central aspect of women's culture. Even a modern intellectual libertine, such as Margaret Mead, was primarily interested in cross-cultural aspects of lovemaking, child-bearing and raising, or, inversely, the use of abortions. Thus, also, love philters and aphrodisiacal herbs leading to pleasures and the ultimate fecundation of the womb have been a part of the lore of the wise women, doing the bidding of the Magna Mater.

This issue has many facets—beauty cosmetics, charms, and aphrodisiacs—that involve herbs. A young maiden might put a sprig of Saint-John's-wort under her pillow on midsummer night to divine in a dream who her sweetheart will be. In England, the yarrow was placed under the pillow and the following verse spoken:

Thou pretty herb of Venus' tree,
Thy true name is Yarrow,
Now who my bosom friend must be
Pray tell me tomorrow.

The herb magic would continue when a couple arrived at the matrimonial altar. Women would weave auspicious herbs and flowers into the bridal wreath. As mentioned earlier, rosemary, a favorite for the flower crown of the bride, has little to do with either roses or Mary, but refers to a plant sacred to the classical love goddess, Aphrodite, who presides over fertility. It was also the custom to put artemisia (!) and rue into the bride's shoes to protect

her against evils that might befall her body. In Brandenburg, while the pastor was conducting the marriage ceremony, the bride traditionally mumbled under her breath,

Man, I have mustard and dill;
When I speak, you must remain still.

If, for some reason, the groom did not turn out as kind as he should have been, if songs and the spices of the cooking pot did not suffice, some more powerful herb magic could be called upon. A fifteenth-century German manuscript tells of a spell spoken to the mandrake root (*Mandragora*) to deal with mean husbands:

Thou good mandrake,
In a sad mood
I call upon you,
To force my man, so mean,
Never more to hurt me.¹

It should not surprise us that, besides the Great Mother as she appears in her many guises as Freya, Holda, Ishtar, Demeter, Parvati, or the Virgin Mary, the phallic gods have had the attention of woman's culture. European "witches" at spring fertility rites somewhere in the wilds on the Brocken Mountain, Blocksberg, Blockula (Sweden), or Puy-de-Dome (France) danced around the horned god whose giant penis was ever ready to copulate. In the Near East, there were similar cults—those of Adonis, Attis, or Tammuz.² Frenzied, wine-drunken women (maenads) followed Dionysius, Pan, and a host of horned satyrs. In India, Shiva, garlanded with flowers and serpents and riding the great bull Nandi (we all know what Sigmund Freud has to say about bulls and snakes!), is the phallic god. The main object of worship, even today, is the lingam (Shiva's upright organ carved in stone) placed into a yoni (the female counterpart). One finds the lingam and yoni everywhere: at street crossings, under majestic banyan trees, in temples, and on the riverbanks.

Everyone is respectful of this axis mundi and fountain of life, but women especially worship here, placing fresh flowers around the shaft, smearing clarified butter (ghee) or ocher (*sindhur*) on it, and pouring Ganges water over it and sprinkling rice, all while chanting mantras. In the West, the succession of Christianity (especially in its Puritan version), the Enlightenment, and Victorianism have done away with such “idolatry,” clearing the way for our life-denying, mechanistic culture.

Simple hunter-gatherer and horticultural societies have their love charms. But more complex societies, those that are polygamous or where marriage is late, are the ones where aphrodisiacs and eroticism, as such, play an especially strong role. In overcrowded peasant societies such as Ireland and China and in places where young men have to wait a long time to accumulate the bride price, where they approach their thirties before being able to marry, the special boost of aphrodisiacs must be provided. The same goes for polygamous societies in Africa in which several women will need to be satisfied.

Most scientists deny any “real” effects of aphrodisiacs, such as that of phallic-looking mushrooms like the stinky *Phallus impudicus*; of turgid vegetables such as asparagus shoots, sweet potato, or carrots; of plants that look like male testicles, such as orchid tubers, truffles, or garlic bulbs; of plants that resemble women’s parts, such as navelwort (*Umbilicus rupestris*), a member of the stonecrop family (Crassulaceae), whose leaves are said to look like a woman’s navel; or of plants that smell like genitalia, such as the stinking goosefoot or notchweed (*Chenopodium vulvaria*) or the yellow meadow rue (*Thalictrum flavum*), which is supposed to smell like semen. Scientists point out that many plants and other substances had been held to be aphrodisiacs but do not evidence any “active ingredient” that could account for arousing stimulation. Spanish sailors were sure that it was *cocoa* (chocolate) that made Indian women so passionate; for a long time, Europeans suspected the love apple (tomato) to be an arouser of carnal desire, along with the berries of the potato and the roots of the sweet potato. Scientists will further point out that any novelty—any costly and rare substance that has

suggestive properties (truffles, champagne, caviar, oysters)—is a bona fide candidate for a love enticer.



Lingam and yoni

([illustration credit 35](#))

The anthropologists Peter Farb and George Armelagos³ suggest that eating and sex constitute the major bond between men and women, anyway, and that a good, relaxing meal can create the mood for lovemaking. Imagination is a major and powerful factor! It is nonsense to assume that there is an analyzable “active ingredient” in the glossy Playboy foldout that causes a man to experience an erection. A simple love charm can produce similar wonders even when worn in the pocket or around the neck. Of course, for cruder souls, there are correspondingly cruder substances that work right into the physical. One such crude stimulator (which is also painful to the kidneys) is Spanish fly, made from ground-up cantharides beetles, which irritates the intestines and urinary system, dilates blood vessels, and causes painful erections of the penis and clitoris. Nowadays it is Viagra that is supposed to cure “erectile dysfunction.” Traditional love philters, capable of catapulting people into the realm of Eros, are those that loosen the bonds on the faculty of imagination and fantasy. These are made primarily from the nightshades: mandrake, datura, bittersweet, and belladonna and, by association, potato berries and tomatoes. The scopolamine

content in most nightshades works in such a manner that the victim cannot withstand erotic suggestions. (Alcohol, by loosening inhibitions, is used in a similar way.)

Some plant slimes, derived from plants such as the orchid, desensitize us to mechanical friction, thus retarding premature ejaculation during the procreative act. The orchid (Greek *orchis* = “testicles”) derives its name from the pair of nut-shaped tubers, and its flowers resemble the female vulva. No wonder the Greek myth makes this plant the offspring of a lecherous satyr and a lustful nymph. Nicholas Culpeper assigns the orchid to Venus. A demulcent made from the roots is not only a delicious food (salep)—sometimes called the food of the satyrs—but is also thought to be a healer of the King’s Evil (scrofula).

Some aphrodisiacs are lures to make a person more attractive to the opposite sex. A multimillion-dollar industry of cosmetics, cold creams, beauty creams, scents, and perfumes is built up on this. They are rubbed into the skin or added to the bath to create a subtle aura of desirability. The odors—actually highly sublimated sex odors similar to those emitted by animals during rutting season—are to remain beneath the threshold of consciousness. Horse chestnut flowers may create such an *odeur de l’homme*, and an *odor di femina* can be created by the stinking goosefoot (*Chenopodium vulvaria*), which is otherwise used to treat “hysteria” and nervous troubles connected with women’s ailments.

Women’s Lore and Life-Crisis Situations

Before the guild of doctors and surgeons monopolized obstetrics, wise women and midwives delivered the baby and attended both mother and child. In traditional societies, the midwife has a sacred status. No one would lay hands on her. She is the carrier of magic knowledge, the link between the generations connecting future generations with their ancestors. Like the shaman she can cross the border to the world of the unborn. Whereas common folks were afraid of the creatures of the night (owls, bats, and prowling beasts),

she had eyes to see in the dark; for she often gathered plants at auspicious night hours or hurried through the pitch-black night to assist a delivery. Midwives inherited their skills from their mothers or grandmothers and thus knew their neighbors intimately, knew of their constitution, and could anticipate the delivery. With special herbs and the right chants, she would go to work and rarely lose a child. When so-called enlightened male doctors debunked her and barred her, only then did infant mortality rise alarmingly. Surgical experiments and, especially, childbed fever (puerperal fever) took their deadly toll. The latter, as Ignaz Semmelweis (1874) was able to prove, occurred because doctors back then did not bother to wash their hands before vaginal inspections or delivery. Often, they had just come from the dissection of a cadaver.

In many societies, including that of the ancient Indo-Europeans, the midwife lays the newborn on the earthen floor to indicate—in a manner that anthropologists call “mystical participation”—that the child is also derived from Mother Earth. A child thus has three mothers: the woman who carried it for nine months, the midwife, and Mother Earth. This is why she is called midwife (Anglo-Saxon *wif* = “woman”), because she is the woman in the middle. She often stands for the ancestral spirit, as well. In Indo-European societies, the midwife walked thrice clockwise around the child, much in the manner that the priest or newlyweds walk around the sacred fire. While doing so, she would inspect to see if the infant was fit for life. Then she lifted it and presented it to the sun or the moon and stars, the trees, mountains, and animals, connecting it with the macrocosm before handing it to the father or laying it on the breast of the mother. As thanks, the family presented the midwife with specially formed breads—baked in the shape of toads among the Germanic tribes, toads being symbols of the Earth Mother, the vulva, and fertility.

Plant lore played an important part in childbearing. Already during pregnancy, food preferences and taboos were prescribed by lore. An American folk remedy calls for drinking raspberry leaf tea, starting a month before the big event, in order to prepare the uterus for easy labor. A decoction of mugwort (*Artemisia vulgaris*) was

traditionally used by knowing midwives for millennia to facilitate childbirth. Rye smut, or ergot (*Claviceps purpurea*; called *Mutterkorn*, “mother’s grain,” in German), has a similar effect. It causes contractions of the uterus and helps deliver babies quickly and without pain. It is used in the third stage of labor—in the first stage it can cause the death of the mother or child. It has also been used as an abortive. In earlier times, when smut-infested rye had been baked into bread, whole villages came down with Saint Anthony’s fire, characterized by a dry burning sensation of the skin, leading to the loss of toes, fingers, and even hands and feet due to the reduction of blood flow to the extremities, turning them brown and then gangrenous. The peasants suffering from this plight beseeched Anthony, an early Christian saint, who had withstood the assault of all kinds of devils.

In Central Europe, fragrant herbs such as bedstraw, thyme, mint, lady’s slipper, flax, Saint-John’s-wort, or artemisia were placed on delivery beds to ward off any bad spells. Sitting baths of yarrow (*Achillea vulgaris*), lady’s mantle (*Alchemilla vulgaris*), chamomile (*Matricaria chamomilla*—the generic name derives from the Latin *mater*, *matrix* = “mother,” “uterus”), and other women’s herbs were used after the birth. Midwives treated stretch marks from birthing with compresses made from a decoction of lady’s mantle, horsetail, or ivy.

Plants that stimulate or slow down the flow of breast milk and bitter herbs that help wean children are part of this women’s lore. Beer makes the mammary glands flow, as do infusions from the seeds of a number of umbellifers: dill, anise, caraway, fennel, and wild carrot (Queen Anne’s lace). For the latter, 30 to 50 grams of seed are infused with 1 liter of water and drunk three times a day. In Southern and Eastern Europe, goat’s rue (*Galega officinalis*, from the Greek *gala-agein* = “milk agitating”) is used as a galactagogue (20 grams of the flowering herb infused in 1 liter of water; three cups a day). Vervain and basil are used in the same capacity. To decrease lactation, a poultice of the cooked leaves of periwinkle (*Vinca minor*) is applied externally to the breasts. The same effect is achieved by a poultice of freshly crushed, heated leaves of

bittersweet nightshade (*Solanum dulcamara*) or with a poultice made from the leaves of freshly crushed black alder (*Alnus glutinosa*), chervil, mint, annual mercury, nipplewort (*Lapsana communis*), chickweed, parsley, and common groundsel (*Senecio vulgaris*). For final weaning, bitter substances are smeared on the nipple, and a fairy tale is told to let the child know why it should nurse no longer.

As vaginal douches to prevent the “white runs” (leukorrhoea), a whole arsenal of plants belonging to Venus is available. Astringent, soothing concoctions, used at body temperatures, are made from bistort (*Polygonum bistorta*), common bugle (*Ajuga reptans*), oak twigs (*Quercus robur*), the leaves of quince, mistletoe, yellow loosestrife (*Lysimachia vulgaris*), walnut, blackberry, or wood sanicle (*Sanicula europea*), as well as parsley seed and the old standbys: lady’s mantle, yarrow, and chamomile.

For too much bleeding during menstruation, barberry (*Berberis vulgaris*) is used. Wild marjoram (*Origanum vulgare*), southernwood (*Artemisia abrotanum*), raspberry, German and Roman chamomile, parsley, and snowball (*Viburnum lantata*) are soothing for painful menstruation. Horehound (*Marrubium vulgare*), mugwort, bogbean (*Menyanthes trifoliata*), silverweed (*Potentilla anserina*), groundsel, caraway, lovage, Queen Anne’s lace, motherwort (*Leonuris cardiaca*), calendula, yarrow, dead nettle, thyme, and betony are used when there is not enough menstrual flow. For painful breasts, the warmed leaves of chervil or a mash of grated carrots are applied for twenty minutes. Cooked celery leaves or the leaves of storksbill or herb Robert (*Geranium robertianum*), or a poultice of raspberry leaves cooked in milk, can be applied to painful breasts for thirty minutes. Drooping breasts are treated with a lady’s mantle tincture (a handful of leaves is macerated in a half liter of alcohol) or shepherd’s purse (a handful cooked in a liter of water for an hour).

Variations of these and other recipes were known to the wise women and midwives of traditional societies and formed part of women’s culture. Men, in general, were not much interested, while priests and official male doctors were excluded from the knowledge that was passed on in sewing and spinning circles, at the well, or at the stream while washing. They are part of an ancient lore, along

with fairy tales, nursery rhymes, and riddles that made children laugh, taught them to walk and talk, and put them to sleep at night. The tradition continued nearly uninterrupted despite zealous monks, reformers, and enlighteners, only to be shattered by the totally new conditions of the modern industrial world, which has ripped up the blood ties of clan and family, the traditional hearth and home, and which has removed the elderly from the household into senior citizen homes and subjected the young to a dozen or more years of abstract schooling. Wise old hags were increasingly replaced by professional (male) doctors as folk culture was replaced by commercial culture. Giving birth became an operation requiring anesthesia and surgery and performed in an environment of white tiles, neon lights, and the smell of disinfectants. Nursing became nearly forgotten until anthropologists pointed out that cows' milk is made primarily for calves and mothers' milk for babies. Hanging breasts can be "fixed" with silicon implantations (though they might come out at the elbows or other odd places after a few years). Difficult menstruation can be regulated by "the pill," though it is now known that blood-clotting disorders and tumors are likely after prolonged use.⁴

Herbal Dyes

In most, but not all, traditional human societies, spinning, weaving, and dying cloth are part of women's round of activities. Women guarded the kin group's health and well-being by offering food to the ancestral spirits, minding the hearth's sacred fire, kneading health into the bread and stirring it into the sauces and stews, attending to the sick and the old, and preparing the garments for the family. A good thought, wish, hope, or song accompanied each shot of the shuttle, each turn of the spinning wheel, each stitch of the darning needle. In that vein, the colors used for dyes were not haphazard. Colors abounded with deep significance. They were expressions of various powers and automatically had the effect of

warding off spells and evil influences by identifying the wearer with their potency.

In Western culture, seven colors—associated with the sacred number seven, as in the seven planets, seven days of the week, and so on—were associated with the following meaning:

- **Red**—the color of life's blood, of woman's fertility, and of the glowing ambers in the hearth. Red is also the color of love. It is auspicious.
- **Blue**—the color of the sky. It is the symbol of longing and faithfulness and also of hard work. (Workingmen's clothes, like blue jeans, were often blue.)
- **White**—the color of purity, chastity, and hopeful love. It is the color of the lily, which Gabriel carried at Mary's immaculate conception. In many societies, however, it is the color of death.
- **Black**—the color of night and also of sorrow, old age, and dignity. (European widows wore black.)
- **Green**—the color of life's vegetation. It is also the color of hope, cheer, life, free love, and jealousy.
- **Yellow**—the color of sunshine and wisdom. However, it can also signify shame and ill will.
- **Brown**—the color of the plowed earth and nourishing soil, indicating bonds of love.

The colors that render local ethnic costumes so beautiful to look at are not the result of arbitrary, individualistic creativity or the whims of fashion; they derive from long-standing traditions that indicate the person's age, social standing, and home village, as well as what dyes are locally available. In these societies, it is as though nature itself colors and decorates the people who live there. The red and blue clothes of the Lapps, for example, are the result of coloring matter obtained from the litmus lichen, which provides blue in alkali solutions and red in an acid solutions.

Before the cloth maker and cloth dyer's guilds established themselves, women gathered and prepared vegetable dyes for their homespun yarns. Already in the Stone Age, Europeans used woad

(*Isatis tinctora*), a cruciferous weed, as a blue dye. The British Celts not only dyed their cloth with it but also tattooed their bodies with magic designs, of which Caesar writes (*Commentarii De Bello Gallico*, Lib. V), “All Britons stain themselves with woad (*vitrum*) which grows wild and produces a blue color which gives them a terrible appearance in battle.” Depending on the mordant, the number of drippings, and the strength of the solution, woad gives a black dye, then various shades of blue, and, when used with weld (*Reseda luteola*), it shades off into different greens. The latter combination, a specialty of medieval Saxon and Thuringian woad dyers, became famous as the “Saxon green.”

Weld, or dyer’s weed, was a common yellow dye before saffron and safflower, which were introduced from the south. The robes of the six vestal virgins, the guardians of the sacred public fire of Rome, were dyed yellow with weld. Greenwood, or dyer’s broom (*Genista tinctora*), dyed linens, woolens, and even leather a bright yellow, as well as providing a diuretic, cathartic, and emetic medicine. Other yellows and oranges were obtained from apple bark, bedstraw root, swallowwort (celandine), beetroot, lily of the valley, and willow leaves. Red was obtained from such plants as bedstraw roots, beetroots, and hollyhock flowers. Plantain, spinach, nettle, and a number of other herbs gave green hues. Besides woad, blueberries, buckwheat, and centaury flowers yielded blue. Cherry roots and elderberries gave purple. Dandelion roots and black currents dye cloth a red-violet. A great number of tanning herbs give shades of brown—rust brown, yellow brown, reddish brown, beige, and so on. For washing the fabrics and restoring their color and sheen, soapwort (*Saponaria officinalis*), also called bouncing bet, latherwort, or fuller’s herb, was used. This saponin-rich plant is gentle on wool and was medicinally used to wash out wounds and clear bad skin.

The coming of the mercantile age got rid of many fields of the herbs that were grown by cloth dyers and replaced them with more brilliant colors from the Orient. Saffron (*Crocus sativus*) provides a bright-yellow dye from its pistils, and the Swiss city of Basel became rich importing and growing this plant. Madder (*Rubia tinctorum*), a

cousin of bedstraw and the coffee plant, dyed the uniforms of generations of European soldiers—including the British “redcoats”—a brilliant red. Madder, which was widely grown in Europe and then in America after it was introduced there, is also a good medicinal plant: like coffee, it is a good diuretic and astringent and is effective in reducing kidney stones. Brazilwood (purple), indigo (which pushed woad into obscurity), and other imported dyes from the tropics were, in turn, replaced in the nineteenth century by the bright but harsh synthetic aniline dyes of the industrial age. Like the synthetic drugs that have replaced healing herbs, these synthetic dyes are the products of coal-tar chemistry. But natural dyes—gentle, earthy, harmonious—that have a local “flavor” much like home-baked breads and home brews should be considered again.

The Darker Side

Knowledge of plants that facilitate birth, heal, and give comfort implies, by force, knowledge of those plants that lead to death, make ill, and destroy. This is the dark side of the lore, belonging to the sinister aspect of the Great Mother, as she manifests in Hecate, Kali, or Lilith. This lore could be used to get rid of burdensome rivals or oppressive men. Whereas males traditionally prefer violent force and the spilling of blood to undo their enemies, women have preferred the “left-handed,” secret path. A tasty dish could be served with a smile to the unsuspecting victim. The subsequent seizure leading to death could well be disguised as a natural death. The world’s most famous poisoners were women. Locuste, a famous hag, was commissioned by Nero to kill his rival, Claudius. She cooked him a meal of toadstools. Claudius vomited these, only to be finished off with the bitter apple (*Citrullus colocynthis*), which, in false pretence, was given as a purgative to get rid of the poison. Lucrezia Borgia is perhaps the most well known Renaissance poisoner. At the courts of her time, this insidious method was so common that poisons were coolly referred to as *poudres de succession*. In India, the poisoning of husbands was practically

unknown. This was probably due less to the fact that a husband is considered to be a god than it might be due to the custom of *sati* (the expected self-immolation of the widow on the pyre of her deceased husband) or the miserable plight of widows in Hindu society.

The wortcunning midwives of old welcomed new life over the threshold from the moon to the earth, coaxing the fetus down the birth canal into the outer world of sunlight, air, and solid things. In a similar manner, they could follow the departed, whose souls had passed over that threshold into the moon, into those regions where the past and future merge. This clairvoyant ability is but a furthering of what is known as woman's intuition, raising the intuition into actual vision. The second vision of the Celtic druidesses and Germanic wise women is well known. Some famous prophetesses, soothsayers, and conjurers of the dead have come down to us by name: Völva of the Eddas, Albruna, Veleda, and Pythia of Delphi.

In tribal societies, we find that besides the major tribal and national gods, which are worshipped by all, there are private spirits, or gods that have to do with only a segment of the society. In ancient northern Europe, it seems that the main gods were the fierce warlike Aesir, gods of heaven, battle, and agriculture. The womenfolk, however, seem to have paid special homage to the Vanir, gods of fertility, peace, and prophecy. Foremost of the Vanir were Freya and her brother, Freyr, who was a fertility god represented by a phallus. Freya was the beautiful goddess of love, healing herbs, and the foretelling of the future. Her name lives on in the German word for woman, *Frau*, and in the fifth day of the week, Friday. Cats are holy to her, much as they are to the Indian goddess of married women and childbirth, Shastri. Freya shared the devotion of women with Odin's wife, Frigg—with whom she is often confused—the goddess of family and marriage. The cult of Freya continued into the Middle Ages in a number of guises. On one hand, she became associated with the Virgin Mary, and on the other hand she lived on in the witches' covens. Cats, healing herbs, rejuvenation, foretelling of the future, and fertility remained, of course, the

domain of the witches. The clairvoyance of the wise woman could be natural or could be helped along with a bundle of psychedelic, psychotropic herbs (her broom). The image of naked witches flying on broomsticks out the chimney relates to the ability to leave the body in a state of trance (Latin *transitus* = “to go across”). The eye-of-the-wind (window) above the hearth was the only opening, besides the arched door, in the old, thatched, wattle-and-daub houses of northern Europe. Through this opening, the spirits ascended and descended (as does Santa Claus). The dead were sometimes buried near the hearth, and soothsaying horses’ heads were attached at the gable by the wind-eye (“getting it straight from the horse’s mouth”). The old wise woman—the mistress of the hearth—would use the same opening to visit the world of spirits. In the [next chapter](#) we shall discuss the herbs that played such an important role in her craft.

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CHAPTER TWELVE

*Consciousness,
Society, and Drugs*





Cultures are built upon shared imaginations and ideas as to what life and existence are all about, answering who we are, what we are doing, where we are going, and why. These imaginations are deliberately maintained by traditions, customs, rites, rituals, art, and a whole complex of symbols. Enculturation (anthropological jargon for the learning of culture patterns) starts at birth and goes on for most of one's life. Mantras, in the form of everyday sayings, greetings, songs, and slogans, fill the thoughts of the members of each society. A system of sanctions ranging from raised eyebrows, ridicule, scorn, and stony silence to physical abuse and, finally, liquidation, upholds the moral and ideological superstructure. And, finally, the cultural reality—which is deemed to be *the Reality*, sine qua non—is maintained physically (chemically) by food, drink, spice, and medicine. All of this creates the “World” in which the human being lives.

Following this line of reasoning, members of different cultures and, to a lesser degree, of different classes or castes live literally in different worlds. Most societies regard their world as the only valid one—others are always somewhat inferior, dirty, more animal-like, condemned by God, needing to be converted (or educated, saved, helped), and, if that is resisted, to be destroyed. This characterizes most traditional religious communities—and, equally, the new secular versions such as Marxism, Hitlerism (defunct), and the “American way of life.”

Buddhists are quite aware of this social conditioning and social fiction, declaring it to be illusion (*maya*). For them, the world is illusion, and what is needed is to achieve clarity, eventually *nirvana* (the blowing out of illusion, the state of illusionlessness). Much of Buddhist meditation, especially Zen, is the attempt to break this constant, daily conditioning.

Our concern in the context of our discussion of herbs and herbalism is the role of food, spice, and drugs, of plants, in general, in supporting and maintaining this world, as opposed to that of any other world. To the hard, empirical scientist, this discussion might

not make much sense because, after all, the so-called real world—where things actually happen and are logically understood—is the world of objective science. But the anthropologist, who has not just observed another society from the outside, recording their quaint customs and rites with tape recorder, notebook, and camera, but has actually “gone native,” slipped into the skin of others, gone through the pain of having his own solidly structured world dissolve into chaos—perhaps attended by some dangerous tropical disease—and having it rebuilt in native terms, can never ever be so dead sure: he has become a citizen of two (or more) worlds. Similarly, those who have experienced a change of perception brought about by illness, personal chaotization, or psychotropic plants might suspect very strongly that there are worlds upon worlds.

A worldview and its attendant way of life are always maintained by a rigid code of what is acceptable and “right.” In theistic societies, it is sanctioned and upheld by “God Almighty”; in rationalistic societies, as in the secular West, by what is “reasonable” and “makes sense.” It always involves food ascriptions, as well as taboos. These food ascriptions and taboos are not arbitrary or just historical accident (although they all have historical roots), but they facilitate the society’s particular way of life. By cultish acceptance or avoidance of them, levels of consciousness and social structures are maintained.

Mormons achieve part of their self-identity by avoiding coffee, tea, or alcoholic beverages and preferring herbal teas. The culture-maintaining food prescription of the Hebrews (kosher food) and Muslims (halal food) are well known. The introduction of wine from the Mediterranean world in the rest of Europe marked a change in worldview and consciousness. Early Romans, as well as the kings of Thebes and Sparta, opposed the ecstatic cult of the pudgy god Bacchus and his reveling train of satyrs and maenads.¹

The modern Western bourgeois world with its rigid work schedules, hustle and bustle of consumerism, black-and-white linear intellectual-ism, and materialism is maintained by drugs and foods such as coffee, sugar, tobacco, hard liquor, high-protein diets, and clean, synthetic, and refined chemical compounds (vitamin pills,

barbiturates, sleeping pills, etc.). Rudolf Steiner is right to suppose that there would be many blank pages in newspapers and magazines if coffee—the Arabian wonder drug—were not there to stimulate the writer as well as the reader. Indeed, were it not for this black brew, this writer would not be able to “kill” his living imaginations, hammering them with the strokes of the typewriter keys into linear black marking on the white sheet of paper.

The feudalistic world that preceded the coffee-tobacco-barbiturate world was a world of stodgy peasants and illiterate nobles, to whom the picture of a saint or the carving of a Madonna said a lot more than any printed page. Beer, ale, wine, bread, porridge, and some roots from the forest and field maintained a consciousness that moderns consider dull and benighted. Spices, coffee, tobacco, potatoes—products of trade and colonies—changed all of that. Peasants were at first suspicious of potatoes, and feudal kings disapproved of tobacco as somehow immoral. Coffee houses were extremely suspect to the guardians of the Old Order (*ancien régime*): political radicals, freethinkers, and *philosophes* met in these places and laid the foundations of free enterprise, capitalism, republicanism, and secularism. Now the day does not start without the morning cup of coffee. The coffee break (or the afternoon tea) keeps it going. In the evening, the worker will turn to an older drug with his beer or wine and the businessman to one of his favorite mixed drinks. These have become the brakes that slow us down.

The British added tea, a bit gentler than coffee, for sound commercial reasons: it stores and ships well; it is slightly addicting; and it makes for a good profit. It was first used by Buddhist monks in China to keep awake during endless hours of chanting. John Wesley, founder of gentle Methodism, recommended it to good Christians for similar reasons: to keep awake during long sermons and while reading the scriptures.

In the 1960s, amidst high technology, affluence, the Vietnam War, and the Great Society, the flower children and hippies appeared gently on the scene, preaching love, peace, harmony with nature, communal country living, herbs, and natural childbirth. This, too, was accompanied by a plant that took on sacramental proportions:

hemp! Marijuana! (Stephen Gaskin's "countercultural" Farm in Tennessee actually institutionalized its use as a sacrament.) Exposure to other cultures, made possible by relative affluence and ease of jet travel, introduced that generation to Indian gurus and sacred ganja. Pot helps people to dissociate. It dissolves rigid mental structures and puts the mind into flow: it belongs to Lord Shiva, the destroyer of fixed forms and established illusions. Pot became a threat to the established worldview—both Marx and Adam Smith sound silly to the pot smoker. The Vedas or the Hare Krishna chants, on the other hand, take on colorful dimensions. Cannabis, which is not addicting, nor physically as harmful as alcohol, became criminalized, and the users were dealt with draconically, even though they had not committed a criminal act as such. It did not stop with pot. Other drugs, more powerful psychedelics, came onto the scene. Shamanistic drugs, such as yajé (*Banisteriopsis caapi*) from South American jungles, were tried, along with ololiuqui and peyote from Central America, psilocybin mushrooms, and lysergic acid diethylamide-25 (LSD). These substances dissolve mind structures, laying unconscious contents bare and opening up the pleroma of the inner world to such a degree that they had to be outlawed. Aldous Huxley enthusiastically experimented with these drugs. Drawing on Henry Bergson, he put forward the theory that the brain inhibits, filters, and selects our perception of reality, permitting only what is functionally relevant into our consciousness. These drugs, however, blast away these filtering mechanisms, expanding our minds. We experience more fully the inner and outer world—both of which become one. The iron curtain that separates them dissolves. The line that marks off self and other dissolves—the neighbor's thoughts can be seen as clearly as those in one's own mind. Time and space crumble; one becomes one with the divine Essence itself. But for those who are rigidly enmeshed in their worldview, who are caught up in the importance of their own ego, their power and possessions, terror and danger show themselves. They may go and jump out of buildings—or buildings in the shape of dragons will jump out at them. Such magical substances are certainly not suited for maintaining the American way of life, just as they are unsuitable for

pious Catholics or for creating the new Marxist humanity. They had to be, and were, stopped at all costs by the authorities.

The new breakthrough of consciousness was relatively quickly stifled. The psychedelic experience was channeled and defined ever increasingly by rock music and the “official” spokesmen of “alternative culture.” Finally, hard drugs entered and destroyed many lives. The mafia made a bloody business out of what was, for a while, a free sacrament. “Flower Power” became the slogan of disc jockeys, “Love” the advertising slogan of banks. The American way of life was not that easily unseated—the restoration began under Nixon, and under Reagan it was complete. But some changes have occurred because of the hippie revolution: people who never gave a thought to soil, plants, or nature started growing their own pot—and eventually turned to organic gardening. Others dared to pry themselves away from the canon of establishmentarian medicine because of its high cost, inhuman complexity, and iatrogenic side effects. They started experimenting with alternative medicine, faith healing, and herbology. A fresh new crop of herbalists joined a few grannies with recipes from the “old country”—a handful of reservation Indians, Pennsylvania Dutch peasants, and Appalachian and Ozark hillbillies. Others are supplementing their diet with homegrown food, trying new, unusual varieties or gathering wild foods from the countryside: burdock root, green dock, plantain, cattails, poke shoots, or daylilies. All of this is looked at somewhat askance. It is nonsanctioned food, nonofficial medicine. It is akin to the garbage—the wilted vegetables and day-old bread—raided from the refuse bins of the supermarkets by the urban poor: foods and substances that are no longer blessed by the priests of the American way of life.

Cultural History of Drugs

Anthropologists find that, besides healing herbs, the typical drugs of hunter-gatherers and simple horticultural peoples are arrow poisons and so-called hallucinogens. The latter are used to communicate

with the spirit world, to contact the master of the animals, the dead, the gods, or the nature spirits. These are drugs like the nightshades, ololiuqui, yajé (ayahuasca), magic mushrooms, iboga (*Tabernanthe iboga*), and others that help the shaman of these tribes to see. They reveal to him the force, god-demon, or unfriendly nature spirit that makes a person sick. They help him in the battle with the demon of sickness and in his struggle for the soul of the patient on the supersensory plane. Other tribal members might be there, perhaps also “high” on the drug, to lend energy and support to the shaman with their chants. These drugs are generally not of a stupefying or euphoric kind. They involve proper precaution and preparation, as well as hard work on the part of the user. They leave the shaman exhausted. They are not taken to relax or to have thrills.

Drugs that provide euphoria or stupor do not appear until agriculture, permanent villages, social class division, and “work” make their debut. The newest research of cultural ecologists shows that hunter-gatherers enjoy a life of relative leisure and plenty. There are no middlemen and specialists to feed, and people are tied directly into the local environment. The amount of work needed for subsistence is minimal: two to three hours per adult per day is sufficient to hunt game and gather and prepare roots, nuts, and berries. The rest of the time is spent sleeping, singing, dancing, telling tales, or communicating with the spirits.² The development of permanent villages allowed for the concentration of greater social power and higher population densities, but it made life bitterer. The ground must be tilled, sown, and protected from animals; and the fruit of the field must be harvested, stored, guarded, and distributed. This marks the beginning of the specialization of society in which peasants, backs bent over the hoe, worry about vermin, taxes, and hungry neighbors; in which townsmen specialize in crafts and trading, whereas professional warriors monopolize weapons, hunting, and horses; and in which priests monopolize God, myth, and symbols. At this stage, direct spirit experiences are replaced by dogma (God reveals himself in the Book, which only the priests may read), and hallucinogenic drugs enabling trance are replaced by drugs that take the hard edge off of a hard life: alcohol (wine, beer)

in the Mediterranean region, opium in Asia Minor, coca for the slaves in the realm of the Incas, kava (*Piper methysticum*) in the South Pacific, and khat (*Khata edulus*) in northeast Africa. It is quite obvious the role that vodka has played for the Slavs, whiskey for the Irish, beer and ale for the northern Europeans, and wine for the southern Europeans. Cannabis seems to take an in-between position: it certainly can make an intolerable world more tolerable by taking the edges off; on the other hand, it can also give the shaman wings.

The New Age drugs—speed, uppers, downers, and refined synthetics such as angel dust, THC, cocaine, and heroine—fit perfectly into the age of electronic speed, supertechnology, computers, chemical fertilizers, rockets, and postmodern surrealism.

In older cosmologies, the diverse levels of consciousness (or realms of imagination) were thought of as the dwelling places of the gods or antigods. By taking sacred drugs, one would partake of the gods or achieve communion. Christians commune with their deity with wine, and most monks were excellent brewers of spirits. (To the common citizen of today's India, to be a Christian means primarily that one indulges in alcohol.) The Australian aborigines take *pituri*, a nightshade, to commune with the totemic spirits in primordial dreamtime. Many modern American Indians experience visitation by the divine spirit during peyote sessions that last all night. Central American Indians take sacred mushrooms or the seeds of the morning glory to meet their deities face to face.

From the realms of gods and ancestral spirits, or from the totemic animals of dreamland, the shaman-artist-priest brings binding symbols and behavioral codes back into the mundane world and fixes them into visual or auditory images—into paintings, carvings, architecture, song, poetry, or dance. Art, especially sacred art, is not understandable unless one understands the means of ecstasy of the artist. The totally flat, intricate designs on Mexican pyramids and paintings take on vibrant dimensions under mescaline. It has been said that the gorgeous Khmer sculptures of ancient Cambodia must be understood through opium. Hindu and Muslim music and some of the progressive music of the sixties is sublime with hashish (for alcohol drinkers it represents endless monotony). Australian rock

paintings glow like living ambers under the influence of pituri. Austrian baroque churches and village *Blasmusik* need a few liters of beer and some glasses of schnapps. “Citybilly” country rock goes best with moonshine whiskey and bennies. The pointillistic electronic music and neon art of the New Wave must be consumed along with cocaine.

In the [next chapter](#) we will look at some of the mind- and consciousness-altering plant substances in more detail.

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CHAPTER THIRTEEN

*The Third Eye and
Magic Flight*





Halloween (Old English, “holy evening”), with its haunts, black cats, and witches on broomsticks flying past the full moon, was once the festival of the Celtic goddesses of the dead and of winter, such as the blue-faced Cailleach and the black lord of the underworld, the slayer of the cosmic stag, the sun. Like Odin, he led a host of goblins and ghosts through the cold, stormy November air when the forces of life are on the wane. The Celts built fires, sacrificed, and prayed for a renewal of the life forces at this time. The Church turned this folk festival into All Saints’ Day (November 1) and All Souls’ Day (November 2), commemorating the fallen martyrs of the church and the departed. The spirits of the dead have become trick-or-treating kiddies and flying witches are but fairy stories. By the nineteenth century, that witches could fly was thought just as improbable as the idea of Oriental flying carpets.

By now, however, folklorists do believe, once again, that witches fly to the moon—that sphere behind the external world of appearances. Throughout the ages, witches have rubbed themselves with pomades made from psychedelic herbs, ingested them, or inhaled the burning leaves or seeds to achieve trance. Psychologists might propose that altered states of consciousness such as trance are but private fantasies, but Indian sadhus, African ngangas, Eurasian shamans, theosophists, spiritualists, and anthroposophists know better. Trance is an out-of-body experience. It is astral travel, involving the separating of the astral body (soul) from the physical/etheric body. This unfettered soul can fly through the woods at night or sit invisibly on the rafters of a house and spy on people. Freudian analysts have analyzed the broomstick ad nauseam; it actually refers to the bundle of twigs and herbs, usually seven or nine species, that are used to create trance-like states.

The magic herbs that produce trance also arouse sexually, leading to the orgy fantasies so graphically depicted in the witch’s Sabbath of Goethe’s *Faust*. In stone-age cave paintings and native drawings of shamanistic voyages, the shamans are often depicted ithyphallically. Passing through the lunar sphere (the moon) stimulates sexual

arousal. This is evident in the erection normally occurring just before awakening in the morning (during wake-up dreams) and is described in the Tibetan Book of the Dead as the soul, just before reincarnation into the earth-sphere, vividly experiencing its future parents in sexual intercourse.

The proverbial nakedness of the witch fits well into this erotic picture. The nakedness might symbolize throwing off the vestiges of ordinary, mundane reality. On the other hand, salves prepared from nightshades increase body heat and decrease the ability to sweat, making clothing unbearable. Magic heat or shamanistic heat that is impervious to snow or ice is a common shamanistic phenomenon.

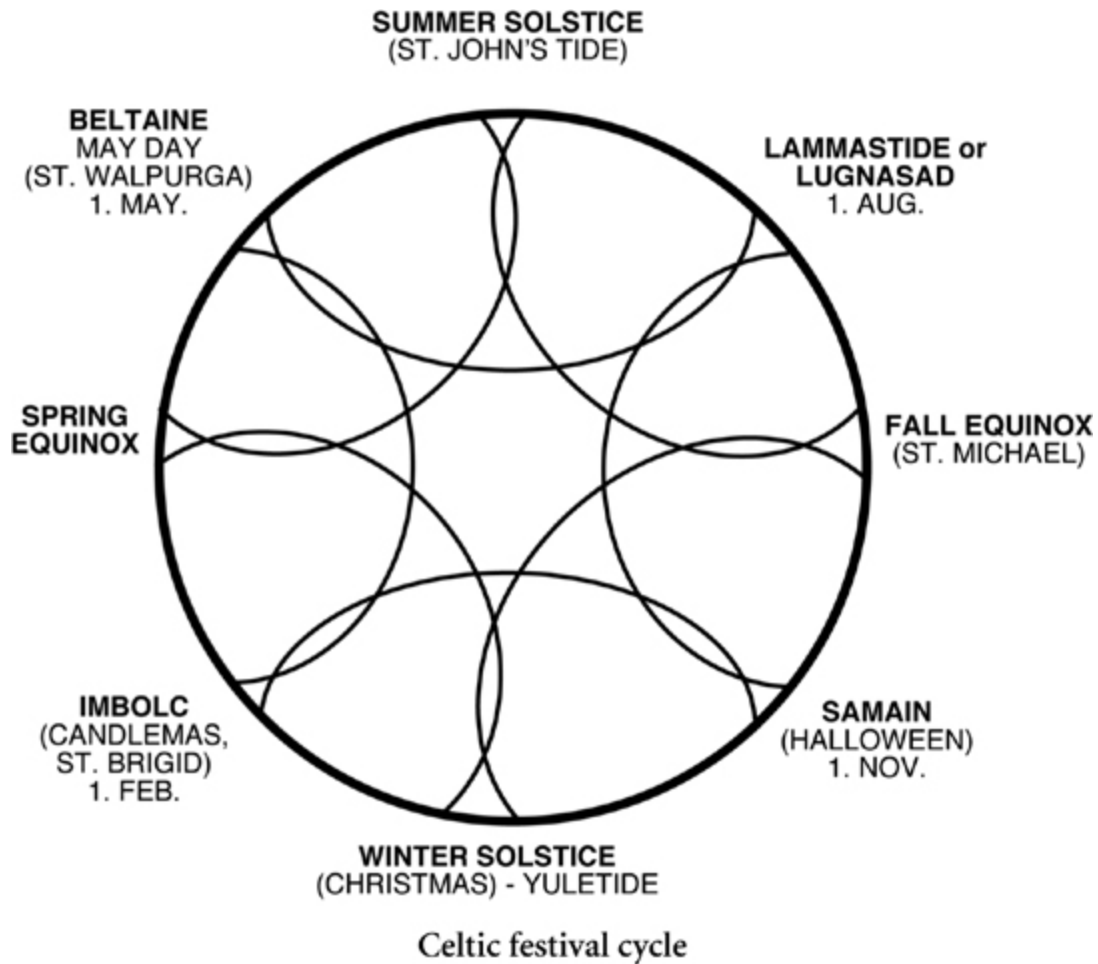
The traditional witch is shown with black cats, ravens, mice, owls, and other night-roving animals, called familiars by folklorists. Using the physical bodies of these pets as a vehicle, the astral body of the witch is able to roam about in the night and fly. The use of a wolf as a familiar results in the phenomenon of lycanthropy (werewolves). Sometimes a witch even rides weak-willed or mentally retarded human beings. Modern witches might even pose as therapists for the mentally handicapped.

The easiest time for astral travel is during the full moon. This is the origin of the symbol of witches flying past the full moon and the use of big orange pumpkins at Halloween. That lunar forces do not affect just the tides and reproductive patterns of the lower animals, but also the human psyche, is a fact attested to by policemen, bartenders, prostitutes, and wardens of insane asylums. During the full moon, there is statistically more violence, madness, and sexual perversion than at any other time.

Out-of-body travel by shamans of primitive or traditional cultures has been frequently described. This magical faculty might account for several archaeological puzzles, such as the 155-foot-long spider at Nazca, Peru, that can be seen only from the air, the 112.7-meter-long White Horse of Uffington in England, the Serpent Mound in Ohio, or possibly the Medicine Wheel in Wyoming. Were these places where, besides doing homage to the numinous, the shamanistic novice could test his wings?

Witches' Salves

In Europe, witches held Sabbaths on special days that coincided with the sacred calendar of the Celtic druids. February 2, which the Church transformed into Our Lady's Candlemas—celebrating the ritual purification on Mary forty days after giving birth, and also a day to bless all the candles—was once the day of Brigid, goddess of fertility, learning, and the healing herbs. This day, separating the dead of winter from early spring, remained an oracle day (Groundhog Day in the United States) to see how long the cold would still last: if a groundhog sees his shadow on that day, it will be six more weeks of winter. Walpurgis Night and the May Festival (Beltane) were the time of the most important Celtic fertility cult. Even though Christians turned it into Roodmas, the Day of the Holy Cross, the peasants continued to dance around the maypole—in its symbolism not much different from the Hindu lingam and yoni—and decorated sills and thresholds of house and barn with the fresh green of birch branches. The witches met in the wild to celebrate orgies. It was the beginning of the balmy season, dedicated to Bhel (Belenos), the Celtic Apollo, the sun god. On August 1, Lugh, the god of war, magic, and poetry, and his mistress, the goddess of plenty, were celebrated, again with fires and sacrifices. (In Helvetia, it is still the national holiday.) The four cardinal days of the year, the solstices and equinoxes, likewise, belonged to this ritual cycle.



([illustration credit 36](#))

On days such as these, when the otherworld was near and the gods mingled with humans, covens met, and the witches would rub each other's bodies with potent salves. Some of the recipes have been dug up by folklorists and experimentally tried—sometimes with fatal results. They were found to create hallucinations similar to those described for the “devil's Sabbath.” The Renaissance scholar Giambattista della Porta gives a formula. The seeds of the following plants were ground into a paste:

- 4 parts **bearded darnel** (*Lolium temulentum*), a grass
- 4 parts **henbane** (*Hyoscyamus niger*)
- 4 parts **poison hemlock** (*Conium maculatum*)
- 4 parts **corn poppy** (*Papaver rhoeas*)

- 4 parts **bitter lettuce** (*Lactuca virosa*)
- 4 parts **purslane** (*Portulaca oleraceae*)
- 4 parts **deadly nightshade** (*Atropa belladonna*)

To each ounce of oil made of these seeds, one scruple of opium is added. The dose is 1.5 scruples or one third of a teaspoon, which is rubbed into the skin (under the arms, genitals, wrists, or in the hollow of the knees). The trip is supposed to last two days. The formula could be problematical, however, because nightshades (deadly nightshade and henbane) should not be used with opiates—the double action could lead to an arrest of the respiratory functions! Poison hemlock (*Conium maculatum*) is also very, very dangerous! *Lolium temulentum* is darnel grass, a relative of crabgrass, which is host to a fungus that produces the alkaloid temuline. Henbane (*Hyoscyamus niger*) contains the poisonous alkaloids hyoscyamine, atropine, and scopolamine, and the other nightshade in the formula, deadly nightshade (*Atropa belladonna*), contains atropine. These alkaloids will be discussed in the next section. Bitter lettuce (*Lactuca virosa*) contains a sedative and pain depressant, lactucopicrine. The juice of the lettuce is otherwise used to adulterate opium. Why purslane (*Portulaca oleracea*) is used is a puzzle from the angle of active ingredients; perhaps it is involved in synchronistic action. Purslane was used in the Middle Ages as a protection against evil spirits.

Another's “devil's mush” contains the following ingredients to be picked in the waning moon:¹

- 5 parts **root of deadly nightshade** (*Radix belladonna*)
- 8 parts **monkshood or wolf's bane** (*Aconitum napellus*)
- 4 parts **mallow leaves** (*Folia malvae*)
- 10 parts **henbane** (*Hyoscyamus niger*)
- 5 parts **black nightshade** (*Solanum nigrum*)
- 2 parts **cinquefoil** (*Potentilla reptans*)
- 10 parts **opium poppy** (*Papaver somniferum*)
- 6 parts **poison hemlock** (*Conium maculatum*)

- 6 parts **Christmas rose** or **black hellebore** (*Helleborus niger*)

Of these dangerous ingredients, the wizard is to “extract the quintessence” and mix them with lard to make a salve to be applied to the skin. Black magicians are reputed to have used the fat rendered from Christian babies or sacrificial victims instead of lard. Monkshood (*Aconitum*) used in this formula, is, as we have seen, one of the most deadly poisons known (3 to 6 mg of aconitine or 2 to 4 grams of fresh root are fatal). This favorite arrow poison of the old European Celts causes the sensation of hair growing all over the skin and is possibly a factor in the imagination of lycanthropy, or of turning into a hairy beast. The Christmas rose (*Helleborus niger*), which has the weird habit of flowering at winter solstice, contains mainly in its rootstock the burning, acrid-tasting narcotic, helleborine, an active cardiac poison.

These two formulas are fairly typical of the witches’ salves. It is not advisable to try them out. They are part of an ancient heritage of cunners of worts and banes, passed on from the adept to the novice, along with the knowledge of the proper spells, attitudes, and cosmic constellations. In the hands of the idle curious, serious mishaps ranging from insanity to a one-way ticket to Hades might be the result.

The Nightshades

The biochemists tell us that it is the effect of two alkaloids, scopolamine and atropine, that makes the nightshades the favorites of the witches. Scopolamine dampens excitability, puts people to sleep, and facilitates hypnotic trance. The seeds of the Jimson weed (*Datura*) are used by Latin Casanovas to spike liquors, under whose influence amorous advances cannot be resisted. Under the influence of *toloache*—an infusion of three or four leaves of *Datura*—the neophyte will be unable to withstand the instruction of the Mexican Indian medicine man during the initiation ceremony. The pharmaceutical industry has developed Scophedal, a cerebral

depressant and relaxant of the involuntary muscles that is injected into ranting and raving mental patients. Similar scopolamine derivatives are given for delirium tremens, fever delirium, seasickness, and the shakes (Parkinson's disease). An overdose of scopolamine (or the similar hyoscyamine) is treated with an emetic, milk of magnesia, and strong coffee to get the heart going again.

Atropine has almost the opposite effect: it makes one "hot as a hare, blind as a bat, dry as a bone, red as a beet, and mad as a wet hen."² In other words, it causes difficulty in focusing the eyes, reddening of the skin, dryness of the mouth, racing of the heart, and excitation leading to singing, dancing, hallucinating, increased tactile sensibility, and erotic sensation. This is because it puts the brakes on the parasympathetic nervous system, which deals with digestion, salivating, heartbeat—the heart can race up to 150 beats per minute—and pupil dilation.

Besides datura and henbane, deadly nightshade (*Atropa belladonna*) also contains this magic alkaloid. The scientific name of this witches' favorite, *belladonna* (beautiful lady) derives from the practice of Italian Renaissance women who dilated their pupils with a drop of the juice of this plant. This makes them look more open, receptive, and beautiful. Psychologists have pointed out that the pupils will narrow with the feeling of hate or rejection, whereas they widen and become inviting during sexual arousal or with thoughts of peace and goodness. Advertising posters featuring wide-eyed maidens selling a product have made use of this observation. Medically, ophthalmologists use preparations of atropine as mydriatic eyedrops to dilate the pupils for eye examinations or eye operations.

This plant is also called devil's cherries or naughty man's cherries. Folklore has it that deadly nightshade is tended and trimmed by the devil every night, except when he is off debauching on the Walpurgis Night Sabbath. In Old English it is *dwale*, a word related to "dwell," because it causes the user to "dwell" as in a trance of lethargy. Its genus name, *Atropa*, is taken from one of the three Greek fates (the Moirai). Clotho is the spinner who spins the thread of life for each creature; her sister Lachesis is the disposer of lots,

determining the length of the thread; and Atropos, “the unmovable,” is the one who cuts the thread of life.

Favored by sorcerers is another member of the genus *Atropa*: the mandrake (*Atropa mandragora*). This plant is not to be confused with its namesake, the American mandrake—the mayapple (*Podophyllum peltatum*) of the barberry family. The mandrake is called Satan’s apple by the Arabs and Alraune (“the whispering of the elves”) by the Germans. Its root is a powerful emetic, and a large dose can cause delirium and madness. Used with wine, it was the anesthesia of the butchers of the Middle Ages when they operated on humans with hacksaws. It was used to expel demons. It was perhaps because the Bible mentions its use as a stimulator of love and facilitator of conception (Genesis 30:14, where Rachel uses it to seduce Jacob), aside from its reputed magical properties, that the root was so eagerly sought out and that herbalists had to set horrible stories into circulation to keep the plant from becoming extinct. It was told that the mandrake grows from the sperm ejaculated by a man hung on the gallows, that it grows into a man-root or woman-root in the earth’s womb, and that it would emit a piercing scream that would kill the digger when it was dug up. In order to safeguard against such a fate, the seeker must draw a magic circle with a sword, burn incense, and chant the right incantations. Then he should tie the tail of a dog to the partially exposed root and let the unfortunate, death-doomed dog do the pulling. Crooked dealers, demanding dear prices, carved the roots to make them appear more humanoid or even substituted the fleshy bryony root for the real mandrake. In the centuries around the Renaissance, the coveted root was washed in red wine, dressed in fine red or white silks, and treated like an idol. The possession of such a mammette, puppette, or homunculus was thought to bring good health, visions of the future, and fortune in love and gambling.

Black nightshade (*Solanum nigrum*), the common garden nightshade, is often confused with the deadly belladonna, but is actually much less poisonous. Dioscorides used stems and leaves for bruises and skin inflammations. It can still be used in that way. As a sudorific to induce sweating, a couple of leaves are steeped in a liter

of water. Children are warned not to eat the berries—there is a record of a child having died from the berries in 1901. American Indians, on the other hand, claim that the berries are good food. How does one explain the discrepancy? Black nightshade contains solanine. This sapo-alkaloid, causing symptoms ranging from scratchy throat to respiratory failure, is concentrated in unripe berries; cooking the ripe berries destroys these toxins. This should explain the contradictory reports regarding its poisonous nature. Some varieties have been selected and are sold commercially under the name of wonderberry, sunberry, or huckleberry.

Similar to black nightshade is bittersweet nightshade (*Solanum dulcamara*), the stems of which are useful in clearing skin problems, acne, and herpes; alleviating painful joints; and, internally, combating albumin present in the urine (albuminuria). A poultice of fresh-crushed, heated leaves can be used to reduce lactation during nursing.

The potato (*Solanum tuberosum*) is perhaps the most illustrious member of this family. The Spaniards brought it back to Europe from South America, where it was a staple for the Incas. Clusius grew them for curiosity's sake in his famous botanical garden in Vienna in 1598. Sir Walter Raleigh first planted them in England, ate the berries (which contain large amounts of solanine), did not like them, and had them rooted out. Nor did other Europeans readily accept the potato. Puritans opposed the infernal tubers because they were not mentioned in the Bible. The peasants of Burgundy feared that they caused leprosy. The despots of the Enlightenment had to order or cajole their peasants to grow the tubers that were to become the mainstay of the proletarian masses of the industrial revolution. During the 1780 famine of Paris, the agronomist Antoine August Parmentier planted a field of "earth apples" that an armed guard watched during the day. At night he withdrew the guards. The rabble did exactly as expected—they stole the tubers. This is how the *pomme de terre* made its way into the common Frenchman's diet. By the mid-1800s potatoes had replaced grain in the diet of the common people to a large extent. As everyone knows, the failure of the potato crop in Ireland in the mid-

1800s reduced the Irish population to half and helped populate North America.

Like its other *Solanum* cousins, potatoes are good for the skin (applied as a cold compress) and for gout and rheumatism. For the latter ills, peasants traditionally carried a buckeye (horse chestnut) in their pockets. When the potato became common, it would do just as well. Another old wives' tale? Not quite! Experiments now show that compresses of raw potato juice help gout as well as synovitis (inflammation of the lining of the joints and ligaments), and potato water, as a hot fomentation, helps rheumatism.

Tobacco (*Nicotiana* spp.), like red peppers, tomatoes, and potatoes, is another nightshade from the Americas. For the Indians of the north, as well as of the south, tobacco was a sacred plant grown mainly by men (women grew the food plants) along with other magic herbs. It played a part in every sacrifice, healing séance, or peace treaty. The sailors of Columbus, thinking of tobacco as an aphrodisiac, brought the custom of smoking to the Old World, where it became part of the secular culture of the new age. Sir Walter Raleigh, an adventurous entrepreneur, set up Virginia as a tobacco plantation and introduced pipe smoking to Europeans. The town of Williamsburg (1632) and the fortunes of the Virginia tobacco aristocracy, including those of founding fathers Thomas Jefferson and Patrick Henry, were built on this weed and the army of slaves brought from Africa to do the work. A well-bred wife could be ordered from Britain for the price of 120 pounds of tobacco leaves.

Tobacco had a hard reception, nonetheless. Sultans tortured the first Muslim smokers; the Pope threatened excommunication (1590); and King James, who gave us the best Bible translation, wrote in *Counterblaste to Tobacco* (1604), "A custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and the horrible stygian smoke of the pit that is bottomless." Indeed, nicotine is a deadly alkaloid, as poisonous as cyanide. One drop of pure nicotine can kill a dog. It is a local irritant, causing (as snuff) sneezing, flow of mucus, nausea, vomiting, and muscular weakness. Prolonged use leads to heart flutters, irregular heartbeat, and

arterial degeneration. Its toxic nature makes it an effective insecticide. Since the skin absorbs it, it causes nausea among tobacco pickers.

Fly Agaric

Fly agaric (*Amanita muscaria*), a red-capped, white-tufted toadstool, appears in innocuous illustrations of children's stories and Walt Disney cartoons as the seat or umbrella of dwarves, fairies, and wee folk. In northern and central Europe, it is a symbol of good luck, along with sooty chimney sweeps and pink pigs. But the pretty fellow is not at all that innocent. It is the sorcerer's best companion: Viking berserkers took it (as part of their initiation); Siberian and American Indian shamans traveled to the other world with it; and witches worshipped it. Gordon Wasson, the daring mycologist, thinks that the *soma* of the *Rig Veda*, that mead of the gods, was neither hemp (*Cannabis*) nor *Asclepias acida* (a kind of milkweed), but none other than this red-capped mushroom. The gnomes and dwarves associated with it in folklore indicate its ability to open the gates of perception into the world of elemental spirits. To the objectively observing scientist, the clinical picture of someone under its influence is that of narrowed pupils, drooling, calming down, and finally stupor. The mushroom activates the parasympathetic vegetative nervous system. Its effect is the opposite to that of atropine. Ethnomycological accounts of its use among Siberian shamans indicate that seven to nine dry caps are ingested for visionary purposes. Some Siberians let the mushroom soak in water for five to six days and drink it together with bog bilberry (*Vaccinium myrtillus*), a kind of huckleberry; also, for synergism or in order to protect the liver, the user drinks a tea of fireweed (*Epilobium angustifolium*). Drowsiness sets in after about a quarter of an hour; after a few hours, euphoria results. One to four mushrooms create dizziness, disorientation, a state of dreaming, and a feeling of lightness. This antigravitational sensation accounts for the "fly" in the name fly agaric—not, as is often claimed, that its juice was used

as a poison for flies. The sacred use of the mushroom was part of the winter-solstice rituals of heathen Northern and Eastern Europe. Of course, it was anathema to Christian missionaries, who claimed that the toadstool was deadly poisonous. In fact, it has been estimated that the lethal dosage of the fresh fungus is 5 kilograms, a quantity hard to ingest.³



Fly agaric

([illustration credit 37](#))

Siberian tribesmen still use it, although the Soviet regime had tried to wipe the custom out and substitute cheap vodka instead. So dear was it to the Siberians that expensive pelts were traded for a single sample, and the urine of the shaman who had eaten the mushroom was saved and drunk by others (the effective alkaloid muscarine is not destroyed when passed through the body).

Hemp

Hemp (*Cannabis sativa*) is an old friend of human beings. The Egyptian Ebers papyrus mentions it as a medicine. The father of Chinese herbalists, Shennong, recommends it for “female weakness,

gout, rheumatism, malaria, beriberi, constipation, and absent-mindedness.” Dioscorides writes in his *Herbal* that “it bears leaves like to the ash, of a bad scent, long stalks, empty, a round seed, which being eaten much doth quench geniture, but being juiced when it is green is good for the pains of the ears.”⁴ Archaeological evidence shows that the Germanics grew hemp by 400 BC, mainly for fiber and oil. Until the thirteenth century, hemp seeds were used to add fatty substance to the diet and as poultices for the painful breasts of wet nurses. Hemp-seed milk was given for bladder pain and dropsy, and heated hemp leaves were laid on rheumatic joints for relief. Ground-up hemp seed was infused with hot water, mixed with egg yolks and sugar, and given by the spoonful to those suffering from dropsy.⁵

The Assyrians (900 BC) used hemp smoke as incense in the worship of their deities. Herodotus tells us that the fierce Scythian nomads of the West Asian steppes not only twined rope and wove cloth from the plant but also used it to fly into the spirit world by burning the leaves and inhaling them from under a blanket. It was used in Central Asia in this way in order to accompany the dead part of the way on their journey into the other world. According to Mircea Eliade, Central Asian shamans have continued this method to this day. In India, the mind-altering properties of hemp have been praised enthusiastically since Vedic times as a “heavenly guide,” “heaven of the poor,” or “soother of grief.” Naked *babas* (holy men) and learned pundits alike enjoy ganja, a high-quality hemp baked into cookies or sweet meats, before contemplating the scriptures or engaging in religious discourse. Little teashops, lining the teeming streets, sell bhang, which is a lesser-quality hemp mixed with yogurt and rolled into balls. People meet their friends there to gossip, drink chai (tea cooked with milk and sugar), and pop a few bhang balls.

The Muslims, to whom alcohol is forbidden, quickly took up the use of hemp. Muslim peasants of India smoke the dried weed in straight clay pipes (*chillums*), while the more affluent merchants smoke high-quality clumps of resin (charas) in water pipes (hookahs). Charas is to bhang what bourbon whiskey is to beer.

Formerly, the fragrant resin was collected by men running naked through hemp fields and then scraping it off their skin; nowadays leather aprons are used for the same purpose. In the northern Sahara, the drug is known as *kif*. Kif houses, where men (women are not allowed) come to smoke a pipe and drink a cup of sweet, fresh peppermint tea while listening to Berber music and watching slender Berber boys do belly dances, have become a regular institution. Hashish, as it is called in the Middle East, is named after a fanatic Shiite leader of the thirteenth century. Hasan-ibn-al-Sabbah, the “Old Man of the Mountain,” like Ayatollah Khomeini, thought that Islam had grown lax and organized assassinations (the word is supposedly derived from “Hasan”) of political opponents and those who cooperated with the Crusaders who held Jerusalem occupied. It is said that he used hashish to create illusions of paradise, replete with food, wine, and houris (heavenly maidens) for those who would die for the cause of Islam.

In the West, the drug use of the plant was not pronounced, perhaps because the varieties were less potent. Hemp was used primarily for making tough, water-resistant ropes, sails, and cloth. Large tracts of the New World were planted in hemp for that reason. George Washington himself grew hemp at his Mount Vernon estate for the needs of the shipping industry—and, according to his diary, he experimented with smoking the plant. Later, the jeans of a tailor named Levi-Strauss would be made from hemp cloth (before he switched to denim). Swiss peasants of the last century grew it also for textile fiber. When the harvest was complete, the men would, just once a year, light up a pipe of it. In Mexico, poor peasants smoked the dried leaves and flowers as marijuana, named after Maria and Juan (John), the witnesses of the crucifixion of the Savior. The revolutionary peasant armies of Zapata and Pancho Villa, overrunning the countryside like cockroaches (*cucarachas*), kept themselves going on “Maria y Juan”:

*La cucaracha, la cucaracha,
Ya no puede caminar,
Porque no tiene, porque no tiene*

In France in the late nineteenth century, a group of artists calling themselves the Club des Hashischins (including Baudelaire, Gautier, Dumas, Delacroix, and others) frightened and alienated the good bourgeoisie with their bohemian antics, giving the drug a bad name. In the United States, the main smokers of Mary Jane, pot, grass, shit, or tea were blacks, Puerto Ricans, and Mexican seasonal laborers—all members of the lower socioeconomic bracket, considered to be indolent, dirty, oversexed, and criminally inclined. Decent citizens, who had just tried prohibition, had no doubt about the effect of this “dope.” In 1937 the U.S. Marijuana Tax Act criminalized the plant and placed a tax of \$100 per ounce on it. It was under this law that Timothy Leary was sentenced to thirty years in jail and fined \$30,000 for possession of marijuana.

Modern researchers show that the active ingredient (tetrahydrocannabinol, or THC) affects the reticular system, the brain stem. It results in a warping of the time sense, intensification of singular senses, synesthesia, slowed reactions, the munchies, giggling, and red eyes. It does not turn people into sex-fiends or killer maniacs, as has been claimed since the 1930s. It is not addicting. It does not lead to crime. It has fewer side effects than coffee or alcohol. An overdose is not possible. So why the concern about this plant? Because, as some researchers pointed out, it contributes to an “a-motivational syndrome,” to introversion, to a lack of concentration, and to a “return to a childish, magical-religious form of thinking.” It tends to make people “drop out” and become apathetic to the affairs of the “world.” Perhaps this is what the Pope had in mind when, in 1484, he listed cannabis as one of the drugs witches use to summon the Prince of Darkness; and perhaps this is why, before the use of hashish smoking became firmly entrenched, the Egyptian caliphs punished its use with the extraction of the user’s teeth. The well-known cabaret artist and counter-culture guru of Berlin, Wolfgang Neuss, commented succinctly, “Hashish leads to the loss of social status, but the increase of spiritual vision.”

Ololiuqui

When the Aztecs wanted to ask something of their gods, they made use of a vine to climb into the heavens, the *ololiuqui*, or green snake (*coatl xoxouqui*) vine (*Rivea corymbosa*). Of course, as is to be expected, Spanish authorities banned the use of the vine's seeds with punishment by death. In the remote areas of Mexico, Indians to this day use the *semilla de la Virgen* (Virgin's seeds) to see through the skin of the world. *Brujos* (witches) use it to locate stolen objects and to read minds. *Curanderos* use it as a cure involving cases of witchcraft—ordinary illnesses are cured by other means. Anthropologists found out about it, and hippies learned about it from the anthropologists and started chewing the seeds. *Rivea corymbosa* is one of the bindweeds (Convolvulaceae) and a close relative of morning glories. It did not take long to discover that the plants, and especially the big, white or blue flowering varieties, appropriately named “Heavenly Blues” and “Pearly Gates,” contain the desired combination of alkaloids, including a good shot of LSD. About 30 seeds are pounded to powder—the rhythmic pounding being an important part of the preparation of centering and steadying the mind before risking the voyage. The powder is then taken in chocolate milk or something similar to partly mask the unpleasant flavor. At first, it causes slight nausea, much like psilocybin or peyote buttons, but soon one finds oneself on the journey into ever more profound levels of meaning. In the 1960s seed companies in the United States wondered why packets of morning glory seeds were constantly sold out. When the reason became apparent, the U.S. government responded by having all the seeds chemically treated with a violent purgative to discourage further experimentation.

There are other herbs and mushrooms in the medicine man's bag or witch's wicker basket that we could look at. This brief look into Hecate's garden must suffice, however, as we go on to learn how to establish dialogue with the plant devas.



CHAPTER FOURTEEN

Talking to the Plants





To our external senses, plants are objects in space that live, grow, reproduce, and die. They are things that can be analyzed in the test tube or with the microscope, revealing the biochemical processes and structures that fill our botany texts. These are true and valid observations, and nothing can be said against them. Yet, to the wortcunner this is a groping in the dark. The inner senses reveal what is more essential about the plant than its temporary, external nature: they are divine beings! One can talk with them as one would with a friend, or one might even become an enemy of them. What the materialistic, positivistic scientist takes for the full plant is only part of the physical/etheric body of this supersensible being.

We should not think that each and every individual plant is a separate divine being. Rather, it is more like Plato imagined it: each rose is a reflection of the archetypal rose. The archetype seems to shatter into multiple fragments as it comes down from the heavens. Each species manifests itself in the world of the senses in a legion of individual little examples. By analogy, it is like the entity of the beehive composed of individual bees or the body composed of innumerable individual cells. When traditional wortcunners or gardeners “talk” with the plants, it is to this spiritual archetype of the rose, oak, or hemlock that they turn, not just to the ephemeral external appearance. We can understand now that the primary concern of the traditional healers is not the hidden biochemical active ingredient, the alkaloid or glucoside, but the spirit or deva¹ of the plant. Herbalists, like Arthur Hermes, do not disdain the knowledge provided by the laboratory; they might even incorporate it into their own vocabulary among the list of adjectives describing the characteristics of the plant. It is to the inner spirit, however, that traditional medicine men addressed a chant, medicine song, prayer, or mantra while gathering, preparing, or administering the medical herb. The practice is universal: healers in Africa, Asia, Europe, and the Americas have always used chants combined with herbs as the main part of the therapeutic effort.

A typical African incantation goes something like this:²

What we tell ogbo [the leaf of *Parquetina nigrescens*], it hears;
What we tell ogbo, it accepts;
Whatever I tell you [here, the patient is named], you must accept.

Typical, also, are the long poems in the *Rig Veda* and *Atharva Veda* addressed to herbs (“Herbs! Thus I address you, mothers, goddesses ...”) by the Indo-Aryan healers several thousand years ago:³

Those hundred and seven kinds of brown herbs
Born formerly, three ages before the gods ...
You, O one whose powers are a hundredfold,
Make this man healthy for me ...⁴

As we know from fairy tales, Nordic wise women gave enchanted herbs—that is, herbs over which spells were sung. Anglo-Saxon leeches (medical practitioners) cooked herbs in ale or butter and made use of chants. A good glimpse of Anglo-Saxon shamanistic herbalism is provided in the *Lacnunga*, or *Lay of the Nine Healing Herbs*, written down in the eleventh century. The *lay* (chant) starts with an invocation of Woden, the shaman god, who defeats the worm (the demon of sickness):⁵

These nine healing herbs march on 'gainst nine ugly poisons—
A worm sneaking came to slay and to slaughter.
Then took up Woden nine wondrous twigs.
He smote the worm till it flew in nine bits.

The nine twigs (herbs) are mugwort, plantain (Anglo-Saxon *waybread*), chamomile (*maythem*), thyme (*stune*), bistort (*atterlothe*), nettle (*wergulu*), crabapple, chervil, and fennel. The first and foremost is mugwort, “the oldest of herbs.” It is addressed as follows:

Remember, Mugwort, what you made known, what you arranged.
Una is your name, the oldest of worts,

You have power against three and against thirty,
You have power against poison and against infection,
And are mighty against the loathed ones that rove through the
land.

In the Middle Ages chants were sung when digging healing herbs, calling upon Mother Mary or Her Son Lord Jesus, who had come to heal the sick on his sojourn to earth. Vervain, for example, once venerated by the Celtic druids to ward off spells, was taken over by early Christian healers and addressed as follows:

All hail, thou Holy Herb Vervain growing in the ground
On the Mount of Calvary there wast thou found,
Thou helpest many a grief and staunchest many a wound
In the name of Sweet Jesus I lift thee from the ground.

Such chants, done at sunrise during the right constellation of the planets and in the right frame of mind, obligate the plant deva to render its assistance. In thankfulness, sometimes a small sacrifice—beer, mead, a flower, or a coin—was given in return. Native Americans had similar chanting practices when collecting healing herbs and often gave tobacco as an offering.

Pliny, who in his *Naturalis Historia* did not disdain writing about Roman peasant lore, tells us that most herbs were picked in the new moon: the herbalist would go out before the crack of dawn, barefoot and without a belt, not having eaten or spoken a word, and unseen by others, to the place where the herb grows. Vervain should be dug when Sirius is rising, when neither sun nor moon are visible in the sky. The herbalist should pour honey and wax as a libation to the earth and then draw a circle with an iron sword around the plant (to keep it from escaping). With his left hand, he should pull out the root and speak, telling it for whom and for what purpose he is taking it.

Sometimes, the chanting of incantations was addressed not so much to the helping herbs or to the earth as it was to the demon or bad spirit who caused the disease and who, with the help of the plants, would be driven from the body and soul of the unfortunate

sufferer. We read, for example, the following in the old Anglo-Saxon leech book:⁶

If a man is in the water elf disease, then are the nails of his hand livid and the eyes tearful and he will look downwards. Give him this for a leech-doom: everthroat, cassuck, the netherward part of fane, a yew berry, lupin, helenium, head of marsh mallow, fen mint, dill, lily, attorlothe, pulegium, dock, elder, fel terrae, or lesser centaury, wormwood, strawberry leaves, consolida; pour over with ale, add holy water, sing this charm over them thrice:

I have wreathed round the wounds
the best of healing wreaths,
that the baneful sores may
neither burn nor burst
nor find their way further
nor turn foul and fallow
nor thump or throb on
nor be wicked wounds
nor dig deeply down,
but he himself may hold
in a way to health.
Let it ache thee no more
Than ear in earth [in the grave] acheth.

This should also be sung many times: “May earth bear on thee with all her might and main.”

According to theosophical and other esoteric teachings, the spirits of the plants live in a heavenly region beyond the astral gods who are the active rulers of the current affairs of the world. They are older than these gods and hard to reach. According to the theosophist, their dwelling place is the *Arupa Devachan*,⁷ the higher heaven, which is identified with the music of the spheres of the Renaissance astrologers. It takes deep meditation and a soul that is good and free from the fetters of worldly passions to communicate with these divine beings. Very few were capable of that. Perhaps Caraka, Paracelsus, and Hildegard von Bingen were among the herbalists and healers of this magnitude. Hildegard tells ecstatically

of the “most noble Green, rooted in the sun, shining radiantly in the eternal cycle, which the mundane senses may not comprehend: You are embraced by God’s mystery; you shine like the dawn, glowing in the sun’s flame.”

Luther Burbank, the “plant wizard” of Menlo Park, California, was such an individual. He grew thousands of varieties of new plants, including a spineless, edible cactus; the Burbank potato, developed from seed; the golden plum; the Shasta daisy; and many other marvels that heavily funded research centers of the agricultural colleges fail to achieve. He did not talk much about his methods, which, from the external point of view, looked much like those of other plant breeders, consisting of selecting and culling. To his friend Paramahansa Yogananda, who called him a “saint among roses,” he confided, “I often talked to plants to create a vibration of love.”⁸ To Burbank, this “love” was not some vague feeling or gushy emotion, but a vital force. He had always been interested in spiritualism, and one of the basic tenets of that philosophy is “Thoughts are things!” Thoughts have concrete effects. Burbank also seems to have had a telepathic ability, consisting of broadcasting and receiving thoughts, and occasionally he healed sick people by the laying on of hands. To the philosopher Manly P. Hall, he confided that man is proud of his five senses, but plants have over twenty sensory perceptions, quite different from ours: “Through telepathy, they comprehend meaning. Most intellectual students do not believe this, thus they have no success.” Like Paracelsus, who claimed that one can understand only what one loves, Burbank considered love to be the secret of the green thumb.⁹ He tells of the nature of plants in “The Training of the Human Plant” in *Century Magazine* (1906):

The most stubborn living thing in this world, the most difficult to swerve, is a plant once fixed in certain habits ... Remember that this plant has preserved its individuality all through the ages; perhaps it is one which can be traced backward through eons of time in the very rocks themselves, never having varied to any great extent in all these vast periods. Do you suppose, after all

these ages of repetitions, the plant does not become possessed of a will, if you so choose to call it, of unparalleled tenacity?

A nosy reporter, who thought he had a scoop, got a hold of this “telepathy stuff” and asked the scientist bluntly, “Do you talk to the plants?” Burbank was not going to be the butt of a sensation: “That story is too ridiculous for words. You can’t accomplish anything by talking to plants or flowers. They haven’t any brains!”

The stories of human beings who can explore the secrets of the plant devas and talk with them remind one of the legend of the lost continent of Atlantis. There, before “sin” had blinded humanity, the plant spirits were very accessible and pliable; it was then that the present traits of the plants were fixed. Burbank and other similar plant doctors¹⁰ seem to be latter-day Atlanteans.

Friendly relationships can be established between gardeners or herbalists and the spirits of a plant species. Such a friendship might continue for several generations. An herbalist might have a plant friend that will do wonders for him, but fail to do so for another healer, just as a vegetable might grow for one gardener but not for another gardener who is equally as good. To an herbalist to whom a plant deva has opened herself, the plant often becomes a panacea, a heal-all, and this fortunate herbalist might pass this special contract down to his children and grandchildren.

The individual species and, in a wider sense, the plant families have their unique characteristics, or personalities. Of the thousands of plant families, only a handful consents to become food plants for humans; others delight the soul with their color and fragrance, still others as spices, medicines, or mind-altering drugs. Some are helpful in divining, such as hazelnut, whose branches are cut to make dowsing rods, or yarrow, whose stalks become I Ching divining sticks in China. Some are overly friendly to human beings, making their earthly life possible: the cereal grains. Some, like cabbages (*Brassica*), amaze by their plasticity and adaptability, which is rivaled by the dogs in the animal world. Others are cool and distant, like the lilies. Some are shy and delicate, like spring flowers in a forest. Some are gregarious, like garden weeds. Some are somewhat

hostile, like poison ivy and other noxious plants. Each family has its specialty, its affinity to one or more of the four elements or the seven planets.

To the spiritual eye of the ancient, these qualities appeared in the imagery of the gods. In the cereal, wheat, Christ the Savior appears in his radiance, or Demeter, the Great Mother Goddess. In *tulsi*, the holy basil plant (*Ocimum tenuifolium*), Vishnu, the sustainer of the universe resides. Shiva is present in the hemp plant and the thorn apple. The divine image of the grapevine is the god Bacchus (Dionysus); in the cypress, Mithra appeared to the Zoroastrian Persians; and, in absinthe, Isis or Artemisia revealed herself. Such imaginations are ways to understand the deeper nature of plants, although the plant devas themselves live in the realm beyond images (the *Arupa Devachan*).

Most herbalists do not have the ability to meet the plant devas in such a profound way, face to face. But they do have the ability to enter through esoteric training, meditation, and, perhaps, mind-expanding drugs into the astral (also called “elemental” or “imaginative”) world. There, they might meet elves, nymphs, dryads, yakshas, dwarfs, or any number of elementals, which may take residence in the etheric bodies of the plants. Such elemental beings must not be confused with the sovereign plant devas themselves. The elemental beings have etheric/astral bodies but lack a concrete physical body (that is why they are invisible to the external eye) and an ego (or a centered spirit). Often they use an old tree or the roots of beautiful flowers or bushes as their physical body and they let themselves be “used” by the ego-spirits of the gods, demons, or human beings. Such elementals might take residence in an old oak tree that dominates the landscape and has a lot of power over the fertility of the fields in the area, or it might be an ephemeral nymph that dwells momentarily in the dew on a leaf, glistening like a diamond in the morning light. If we get to know them and befriend them, they can be of great help in telling us the secrets of nature. They will prattle about the high plant spirits and might point us in the right direction concerning the healing quality of an herb.

When we meet the plant spirits, we meet old friends and relatives. We know them from the beginning of time, for they have evolved with us. Together we have originated out of the source, out of the universal Brahman. They are part of our wider being, and we are part of them. They are part of our macrocosmic selves in the sense of the Sanskrit dictum, *Tat tam as*: “You are that!” After death, we return to them; our microcosmic existence ceases as we become part of the great macrocosm once again—at least until our karma leads us again into a new reincarnation. In one of my conversations with Albert Hofmann—the genial chemist who discovered, among other things, LSD—he stated that the archetypes or devas of the plants are found in the same transcendental region as are the spirits of the departed. In Africa and Asia, as well as in Europe, it was known that dead ancestors work on the vegetation, blessing the fields and pastures with fertility by making plants grow. At special festivals, such as the ancient Celtic Halloween, the dead were fed and remembered. In addition, they were properly honored with flowers and green wreaths due to their affinity to the green world. Going to the plant archetypes is going to our macrocosmic ur-mother/father.

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CHAPTER FIFTEEN

Family Portraits





It is no secret to the botanist that groups of plants share morphological and physiological characteristics. These are the plant families with which he or she works. The family similarities do not just stop at the number and arrangement of petals, sepals, and stamen but extend to subtler areas, involving their biochemistry, place in the environment, effect on animals and humans, and influence in history, art, and symbolism. Only by including the latter can one come to a fuller picture of the characteristics of the plants involved. For the prospective wortcunner this is important knowledge. We have already looked at the nightshades, mints, and carrot family; now let us now look at a handful of other plant families, picked at random, and sketch their salient characteristics in a few words.

Spurge Family (Euphorbiaceae)

The spurges generally thrive in hot, steamy jungles as trees or in deserts as spiny cacti and other succulents and have a dominant lunar signature of milky, latex-like juices. The acrid, poisonous “milk,” which tends to be similar to snake venoms and causes severe inflammation, has given the family its German name, *Wolfsmilch* (wolf’s milk). Their toxic nature makes them useful to native peoples as arrow poisons and fish poisons. Fascinating is the odd, rigid symmetry of these plants. Many are succulents. This strikes us when we look at common weeds of this clan that grow in our gardens: the cypress spurge (*Euphorbia cyparissias*), the sun spurge (*E. helioscopia*), and the gopher plant (*E. lathyris*), so called because gophers are expected to flee when it is planted in the garden. The annual mercury (*Mercurialis annua*) and its cousin dog’s mercury (*M. perennis*) fall somewhat out of line, having more of a mercurial than a lunar signature. Mercury is used in common folk medicines a drastic purgative: it stimulates stool, urine, saliva, the glands, and the liver and helps to get rid of warts. Mercury is dioecious—having

male and female flowers on separate plants—which led Dioscorides to believe that when pregnant women use a vaginal suppository of the male plant, they will bear boys, and when they use the female plant, they will bear girls. (He was right 50 percent of the time.)

The little green flowers of the spurge are as odd as the rest of the plant. The flowers, if not dioecious, are often separated on the same plant, or the ovary hangs out of the calyx like a three-lobed ball. The flaming red poinsettia seems to be an exception until one looks closer and realizes that these red “petals” are but modified leaves. Spurge in the form of the cassava root (*Manihot utilissima*), from which we get tapioca, have fed generations of South American Indians, who know how to process this poisonous plant to make it edible. The castor bean (*Ricinus communis*), a native of India that grows into a tree, has cleaned the bowels for thousands of years as castor oil. The most famous spurge is, however, the rubber tree (*Hevea brasiliensis*), which has given us rubber tires, condoms, and boots—but also destroyed native Indian cultures and introduced slavery to Brazil.

Poppy Family (Papaveraceae)

Another family that sports lunar characteristics is the poppy family: it does not even make woody parts and is full of “milk.” Astrality flashes through the poppy in the form of bright flowers that flare up and burn themselves out in a very short time, leaving capsules like pepper shakers with myriad tiny seeds behind. Greater celandine (*Chelidonium majus*), with its yellow flowers and yellow milk juice, includes a Jupiter aspect. This aspect is so strong that the crushed leaves have the smell of raw liver and are effective in treating liver and gall bladder trouble, as well as curing warts and affecting the thyroid. Its cousin, the red puccoon root or bloodroot (*Sanguinaria canadensis*), exudes a blood-red liquid from the bruised root (Mars signature!), which suggests to folk medicine its use as an emmenagogue (i.e., it initiates and promotes menstrual flow). American folk medicine used its juice in treating ringworms, warts,

and skin cancer. Otherwise, this poisonous plant is so nauseating when taken internally that it acts as a violent expectorant.

Both of these herbs are replaced in fame by the white opium poppy (*Papaver somniferum*). Many prominent artists smoked or ate opium: Samuel Taylor Coleridge, Edgar Allan Poe, Modest Mussorgsky, Elizabeth Barrett Browning, Algernon Charles Swinburne, Thomas Chatterton, Francis Thompson, Dante Gabriel Rossetti, William Wilberforce, Thomas De Quincey, Novalis, Jean Cocteau, and others. Opium, which was grown in Bengal, helped finance the splendor of the British colonial empire and caused the downfall of the Chinese empire. Friedrich W. A. Seetürner, who extracted its active ingredient in 1804, called this alkaloid “morphine” after the classical god of sleep, Morpheus, the little brother of Thanatos, the god of death. Wide use of morphine as a painkiller created an army of morphine addicts. To cure this addiction, Bayer Pharmaceuticals, which also developed aspirin, invented heroin—so named for its “heroic” action. It turned out, of course, that the cure was worse than the disease. In another way, this family is affiliated with Thanatos: after the slaughter of Europe’s youth in the trenches of Flanders in World War I, red poppies sprang up in masses from the cratered, blood-drenched soil. This red poppy or corn poppy (*Papaver rhoeas*), which, before herbicides, shared the grain fields with blue bachelor buttons, has medical virtues. Its flower petals are used in calming cough syrups and teas, and like the seeds of the opium poppy, its seeds can be baked into cakes. Apart from its misuse as a narcotic, the sap of the opium poppy is a deep-acting painkiller and is also extremely useful in treating dysentery, stopping the flow of bloody stool.

The Pulses, or Pea Family (Papilionaceae or Leguminosae)

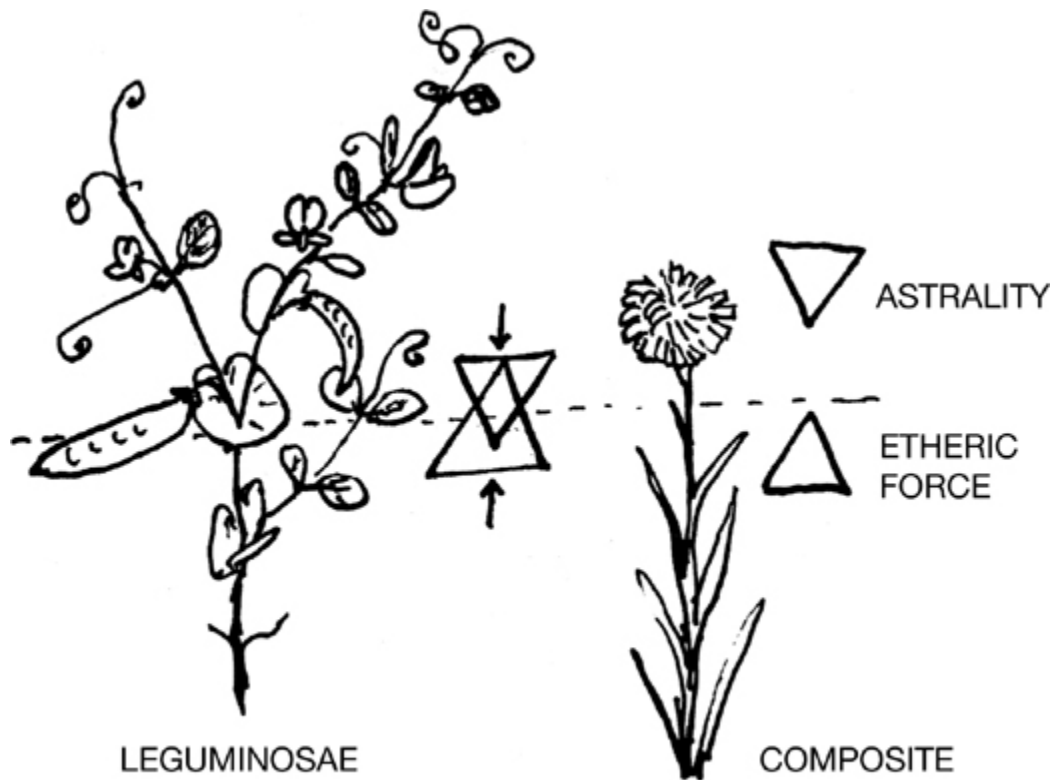
The pea family might not have as dramatic a history as the poppy family, but it ranks in importance next to the cereal grasses. Where would the poor masses in large agricultural civilizations have

derived their protein, if not from the pulses? The folk diets of Egypt, India (grains and pulses), Central America (tortillas and beans), and China (soybean) have kept people fed (but also stupid if we believe the Pythagoreans, who claim that beans make people dumb). The “locusts” that John the Baptist ate were not grasshoppers but the pods of the locust tree (carob, or Saint John’s bread tree), which is used today as a chocolate substitute.

The importance of this family doesn’t stop there. Great fodder plants that help fill udders with milk and flanks of beef with meat are Leguminosae: clovers and alfalfas. Charles Darwin pointed out a whole ecological chain linking clover, old maids, and the price of beef: bumblebees feed on clover, field mice feed on the bumblebees, and the cats that old spinsters use to keep their laps warm feed on the mice. If there are fewer spinsters, there will be fewer cats and thus more field mice, which eat more bumblebees, causing fewer clovers to be fertilized. This, in turn, decreases the amount of clover that beef cattle may eat, causing a rise in beef prices.

Many members of this family have medicinal value. Here are a few examples:

- **broom**, or **Scotch broom**, used traditionally for heart complaints
- **fenugreek** (*Trigonella*), an antidiabetic and aid to digestion
- **licorice root** (*Glycyrrhiza*), used internally for bronchitis and peptic ulcers; externally for eczema, herpes, and shingles
- **milk vetch** or **tragacanth** (*Astragalus*), used to stimulate the immune system
- **red clover** (*Trifolium*), used internally for psoriasis and other skin problems, coughing, and to cleanse the lymphatic system
- **senna** (*Senna*), a laxative
- **sweet clover** (*Melilotus*), used as a blood thinner
- **tonka bean** (*Dipteryx*), formerly used to treat whooping cough
- **tamarind** (*Tamarindus*), used internally for fevers, jaundice, and asthma; externally for ulcers and rheumatism



Legumes flower while in full vegetative growth

([illustration credit 38](#))

When one sees tropical members of this family, or even the garden pea or the scarlet runner bean with their showy, fragrant, asymmetrical flowers, one understands why this family is also called Papilionaceae (Latin *papilio* = butterfly)—the butterfly-flower family. These plants draw astrality so strongly into themselves that their flowers look like butterflies and their tendrils (as in a garden pea) are so animated, rotating at one circle per hour, that they look like strange animals when filmed in time-lapse mode. Like the nightshades, they start flowering while still in full vegetative growth.

The flowering impulse, as a sign of impinging astrality, is by no means the end of their etheric unfolding but reaches deeply into their green, growing processes. This accounts for their “animalness” and would lead us to expect the development of toxins. Indeed, nitrogen, which is the physical carrier of astrality, is sucked into the

plants by means of the root nodules (rhizobia). Raw beans are poisonous; locoweed, broom, derris, and sweet peas (*Lathyrus*) are very much so. However, in most of the pea family genera, the astrality is expressed in a nonpoisonous manner: in extravagant flowers that look like butterflies and in the accumulation of protein (which becomes a kind of substitute meat for vegetarians and the poor).

This “animalness,” due to nitrogen fixation, makes it possible for Leguminosae to grow in nitrogen-poor soils of the tropics and flourish—they kind of make their own manure.

Nettle Family (Urticaceae)

The nettles are enmeshed in astrality no less than the lunar Leguminosae. In this case, it is the astrality of Mars and Jupiter. Jupiter shows itself in the yellow roots of the nettle and Mars in the “hairs” or bristles that inject a toxic mixture including histamines, acetylcholine, and formic acid into the skin when one accidentally brushes against them. The fact that similar substances are found in ant and bee stings leaves no doubt about the animal nature of nettles. Like ants and bees, nettles enjoy the proximity of human beings and bless them in many ways. Nettle juice makes hair and scalp healthy. Dried nettles, fed to chickens, makes them lay more and better eggs. Feed dried nettles to horses, and their coats will be shiny. Nettle greens make a delicious spring vegetable, similar to spinach, and a soup tasting somewhat like fish soup. The sting disappears when they are cooked. The Martian nature of the plant is shown by the fact that nettles accumulate iron and that they are a good remedy for iron-deficient blood. Their yellow roots are very helpful as a remedy in case of prostate troubles—a truly Martian (male) disorder—and the seeds, when eaten, increase male potency; they are a vegetable Viagra.

Like the mints, nettles grow in a rhythmic symmetry of opposing leaves and seem to exhaust themselves before they come to flower. Like the spurge, the flowers are not showy, but they are green and

dioecious. Butterflies take the place of brilliant flower petals, which host their larvae: the little fox (*Aglais urticae*); the red, black, white, and brown admiral (*Vanessa* sp.); the question mark (*Polygonia*); the eye-catching peacock butterfly (*Inachis*); the colorful painted lady (*Cynthia*); and many moths such as the garden tiger moth. The fairy tale of the princess whose brothers were turned into swans and who could break that spell if she spun and knitted shirts of nettle for them indicates not only the practical use of nettles—that a fabric can be made that rivals linen and was common before the introduction of cotton—but that it can be used to overcome bad spells. In the mythological symbolism of old Europe, being turned into a swan meant having lost one's connection to the earth and the here-and-now. The sting of a fresh nettle certainly brings one back to everyday reality, much like the Zen master who smacks a student whose mind wanders. One bad spell that can be overcome by a thrashing with nettles is rheumatism (in German this is referred to as *Hexenschuss*, “witch's shot”). Urtication refers to thrashing the painful joint with a sprig of nettle, causing the formic acid to enter the skin and relieve—often permanently—rheumatic pain. A tea of nettle leaves is a diuretic blood cleanser good for gout and eczemas. Such a tea also helps lower blood sugar, having a tonic effect on the pancreas.

Closely related to the nettle family is the hemp family (Cannabinaceae), which includes the fiber plant hemp (*Cannabis sativa*) and the hop vine (*Humulus lupulus*), used to flavor and preserve beer. Young hop shoots make a good spring and summer vegetable (hop spinach), and an infusion of hop leaves makes a good sedative—as does hemp.

Madder Family (Rubiaceae)

The five thousand or so species of this family live mostly in tropical rain forests, some as earth-shy epiphytes or as light plants with hollow stems, much like their northern cousins, the bedstraws. Many of these plants are made into red dyes, and some accumulate

formic acid, revealing a Mars signature like the nettles. As mentioned before, in the eighteenth and early-nineteenth century the brilliant red coats of the British army (and the red caps and pants of the French colonial army) were dyed with the root of the madder (*Rubia tinctorum*) before the discovery of synthetic substitutes. Cleavers, or goosegrass (*Galium aparine*), also give a reddish dye. Medicinally, cleavers used fresh or dried in an infusion make urine flow and sweat pour from the skin. It is one of the best lymphatic tonics, helpful with neurodermatitis and psoriasis. Such a tea also helps to heal and clean wounds when used externally. The juice of the plant works like rennet in curdling milk. Its cousin, yellow bedstraw (*Galium verum*), was used to curdle Chester cheese, giving it its rich yellow color and unique flavor. Its use by dairy farmers accounts for its generic name Galium, being derived from the Greek *gala* = “milk.” Yellow bedstraw is also good for gravel, stones, and urinary diseases, being diuretic and somewhat antiseptic. The name *bedstraw* is derived from the legend that Mary cradled her infant child on a heap of this dried plant. The madder that gives us red dye has a similar medical effect. Sweet woodruff (*Galium odoratum*), a companion of beech trees and ingredient of intoxicating May wines, has the same attributes, being astringent, diaphoretic, and diuretic. The herb, which blooms in May, was dried and stuffed in pillows of the bedridden, helping the sick to become calmer and less anxious.

The most famous member of the family is that Abyssinian shrub with brilliant red berries discovered by the Ethiopians: coffee (*Coffea arabica*). When one holds a glass of fresh-brewed coffee in the sunlight, one sees the reddish nature of this family; and like its cousins, coffee infusions affect kidneys and the bladder. Another famous member of the family is china bark or Jesuit tea (*Cinchona officinalis*), which gives us quinine, which helps regulate fever and neutralizes malaria plasmodia.

Crowfoot or Buttercup Family (Ranunculaceae)

The Ranunculaceae (from Latin *ranunculus* = “little frog”) are well named, for they prefer to grow in moist places, near springs, wet meadows, or shaded woods, where frogs love to be. It seems that these plants can hardly wait for spring to come. Some of them start flowering while it still snows, such as the winter aconite (*Eranthus hiemalis*), liverwort (*Hepatica nobilis*), and figwort (*Ranunculus ficaria*). The Christmas rose (*Helleborus niger*) already starts flowering around Christmas.

This family has an aversion to heat and salt. It generally avoids getting rigid and woody; apart from old-man’s beard (*Clematis*), a woody vine, it forms no trees or succulents. In other words, it avoids the influence of the upper planets (Mars, Jupiter, Saturn); only the buttery yellow blooms (sometimes blue or violet) show a tinge of Jupiter and the acrid juices a tinge of Mars. The buttercup family is a virtuoso at leaf metamorphoses, maintaining the plasticity of lunar and mercurial forces.

The leaves start out fleshy and round and end up looking like crows’ feet. Most of the crowfoot species are acrid, and some, like larkspurs and delphiniums, are deadly poisonous. The flowers of the acrid ones, such as buttercups, show a radial symmetry of five or six separate flower petals with numerous stamens and ovaries. The more poisonous ones, as one would expect, have astralized themselves so thoroughly that their flowers develop bilateral symmetry, like insects, distinguishing front and back, top and bottom.

The family contains famous healing herbs such as liverwort, whose name suggests its use. The form of the leaves as well as their purplish red underside resemble the liver. This was taken as a signature. However, its effect on the function of the liver is not very convincing. Golden seal (*Hydrastis canadensis*), on the other hand, is truly a remarkable herbal healer, being prized as an antiseptic, astringent, diuretic, laxative, and tonic. The plant was once so plentiful that its root was used as a yellow dye, but now, with its high demand and the cutting away of the American forest, it has become rare and expensive. The lovely blue fennel flower, or love-in-a-mist (*Nigrella arvensis*), belongs to this family. Ayurvedic doctors

use it as a stimulant, diaphoretic, and emmenagogue and to increase lactation. In India and the Middle East, the seeds are baked into cookies and are said to make women beautiful (i.e., help them become fatter).



One could go on and on describing the virtues and characteristics of such families as the roses, milkweeds, mustards, heaths, witch hazels, and that royal family, the composites, which have given us the very best medicines. But I prefer to leave this to you, dear reader. The plants that are all around you, that you meet as humble weeds in the cracks of the city sidewalks, that grow on your windowsill or populate your garden, are full of wonder and mystery. They tell you of biochemistry and ecology as well as astrology. They have a long tradition of interaction with human culture. They have, as Richard Grossinger puts it aptly, “a cultural and linguistic identity inseparable from [their] medicinal qualities.”¹ They tell you of your ancestors and the gods and even yourself, if you take the time to listen. And they can heal, or at least alleviate, your ills.

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Appendix

Atharva Veda 8:7

1. Those that are tawny and that are bright,
the red and the spotted,
the swarthy, the black herbs,
all do we conjure hither.

2. Let them save this man
from Consumption sent-by-the-gods,
these plants, fathered by Heaven, mothered by Earth,
whose root is the primal cosmic ocean.

3. The divine herbs in the beginning were the primal waters;
they have made depart from thee, from every limb,
thy sin-born Consumption.

4. The spreading, the bushy, the one-spathed,
the extending herbs, I conjure hither.
Those with shoots, those with joints, those with spreading
branches,
I call for thee the plants that are of all gods,
mighty, life-giving unto man.

5. Whatever power is yours, ye powerful ones,
whatever valor and strength is yours,
therewith free ye this man from this Consumption,
O herbs! Now do I make a remedy.

6. The lively, by-no-means-harming, living herb,
the nonobstructing, upward-leading,
nourishing flower, rich in sweets,
do I call hither,
to make this man free from harm.

7. Hither shall come the forethoughtful ones,
the allies of my spell,
that we may safely ferry over this man from distress.

8. Food of Fire, fruit from the womb of Waters,
growing up renewed, firmly rooted, named a thousand names,
be they remedial in being brought.

9. With Avaka [*Blyxa octandra* Richard] as their hull,
with the waters as their nature,
May the sharp-horned herbs rend distress asunder.

10. Those that release, dispel Varuna [i.e., dropsy]
the mighty, the poison-destroyers,
the swelling-dispellers as well,
the spoilers of witchcraft,
May these herbs come hither!

11. The purchased, and praised, most powerful plants,
may they protect in this village
cow, horse, man, and beast.

12. Rich in sweets the root, rich in sweets the tip,
rich in sweets has grown the middle of these plants;
rich in sweets the leaves, rich in sweets the flowers of these,
partaking of honey, a drink of the elixir of immortal life [amrita],
may they milk forth melted butter, food,
and first of all, milk.

13. How many and whatsoever be these herbs upon the earth,

may they, the thousand-leafed,
release me from death, from peril.

14. May the tigerish amulet of plants,
protecting, guarding against imprecations,
smite far from us diseases and all demons.

15. As at the lion's roar,
they start with fear,
as at fire, they start fearing the herbs brought hither;
May consumption of kine [cows], of men, be gone,
driven out by the plants, beyond the navigable streams.

16. Herbs, released from the Fire-who-dwells-with-all-men [Vaisvanara],
go ye stretching over the earth,
ye whose king is the forest-tree.

17. Those herbs, related to the Angirases [the semidivine first Brahmins],
which grow on mountains and plains,
May they be rich in milk, propitious,
weal to our heart.

18. Those plants I wot, those with the eye, I see,
the unknown and the ones we know of,
and those in which we wit the virtues brought together.

19. May all herbs together note my spell,
that we may safely ferry over this man out of distress.

20. The Asvattha [-tree, *Ficus religiosa indica*], the Darbha
[-grass, *Cynodon dactylon*],
Soma, the king of plants, oblation, the immortal dish,
rice and remedial barley, ye twain immortal sons of Heaven.

21. Rise ye up;—it thunders and roars at [you], O herbs,
when Parjanya [the god of rain] favors you with seed,

O ye children of the Spotted Cow [the earth].

22. Of this divine elixir of immortal life [amrita]
we make this man drink strength;
now I do make a remedy
that he come to a hundred years.

23. That plant the boar knows,
that remedial herb the mongoose knows,
those ones the serpents, the Gandharvas [the genies of the
amrita-containing moon-cup, guardians of the vegetative lunar
cycle], know,
those I call to his aid.

24. Whatsoever herbs, related to the Angirases, the eagles,
whatsoever divine ones, the bees [?] know,
whatsoever the birds, the swans know, and all winged ones.

25. Of however many herbs the inviolable kine eat,
of however many the goats and sheep,
May all these herbs, brought hither,
extend protection unto thee.

26. In however many herbs the human physicians find a remedy,
so many, all-remedial, do I bring unto thee.

27. Those rich in flowers, rich in shoots,
rich in fruits, though fruitless ones as well,
like mothers assembled, let them yield milk
unto this man for freedom from harm.

28. I have snatched thee away from Him-with-the-five-strings,
and from Him-with-the-ten-strings as well,
also from the fetterlock of the Tamer [Yama, King of Death],
from all sickness sent by the gods [in retribution for offences].

Rig Veda 10:97 (translated by Heinrich R. Zimmer)

Those herbs, the first-born of the gods,
three ages of the world ago,
those will I worship in my thoughts,
the hundred-and-seven virtues of those [with new] tawny
[sprouts].

Hundred, O Mothers, are your virtues,
and thousand your shoots,
ye, of hundred potencies, then,
make me heal this man.

Rejoicing, hers, respond,
ye with flowers, ye with shoots
like mares, winning the race,
eager, the plants to ferry over to the side of safety.

Herbs: thus I address you, mothers, goddesses,
may I win horse, cow, clothes,
... thy life-spirit [atman], O man!

In the asvattha tree your seat,
your abode made in its leaf,
ye like milking cows would be,
when you better me this man!

With whomever the herbs have come together
like kingly chiefs unto the gathering,
that Brahman is called a “healer” [bhisaj],
a demon-killer, a plague-dispeller.

The rich in mare-like waters, the rich in Soma,
the invigorating, the one excelling in strength,
all herbs found I for this man
to free him of harm.

Like cow from the cow pen
stream forth the virtues of the herbs,
eager to secure rich fee,
[for thee] thy life-spirit [atman] O man!
Weal working is your mother’s name,
hence you are Woe-expellers.

Winged streams are you;
you expel what ails.
Over all enclosures they have climbed,
like a thief into the cow pen.
The herbs have driven away
all defects of the body whatever.
Since, strength-imparting, I hold
In my hand these herbs,
The life-spirit [atman] of Consumption vanishes
as if in front of Him who seizes the life-soul [Yama, King of Death]
Whom, herbs, you crawl along,
limb by limb, joint by joint
from his Consumption you divide asunder,
as, located-at-the-center,
the might [king divides asunder the ring of neighbor kings who
prey upon his realm].
Fly away, Consumption, together with the jay,
with the blue jay,
with the blast of the wind,
with the storm, vanish!
One of ye help the other,
one to the other be helpful,
ye all, of one consent,
help onward this my spell.
Those with fruit, those without fruit,
those flowerless, and those with flowers,
impelled by the Lord of Magic Spells [Brihaspati]
may they deliver us from ill,
may they deliver me from imprecation,
and from [the dropsy] that-comes-from-Varuna
and from the Tamer's fetterlock [sickness unto death]
from all god-sent diseases.
Flying down from heaven the herbs spake:
Whom, alive, we reach,
that man does not perish.
Whatever herbs there are in Soma's kingdom

the many, wise a hundredwise,
of these thou art the best
ready to desire, weal to the heart.
Whatever herbs there are in Soma's kingdom,
spreading earthwide,
impelled by the Lord of Magic Spells
lay your strength together in this herb.
May he not come to harm who digs you,
nor he, for whom I dig you;
our two-footed, our four-footed
all uninjured be.
Whatever plants hearken to this spell
and those gone out of reach,
all flocking here together,
shall give their strength together in this herb.
The herbs consult with Soma, with their king:
"For whom a Brahmin works a charm,
him, O king, we ferry over to the other side of safety."
Thou art the best, O herb,
the trees to thee are servants:
Be subservient unto us
He, who seeks to do us harm.

1. In the original:

*Den Arzt, der jede Pflanze nennt
Die Wurzeln bis ins Tiefste kennt
Dem Kranken Heil, dem Wunden Lindrung schafft
Umarm ich hier in Geist- und Körperkraft.*

CHAPTER ONE. *The Story of Herb Lore*

1. In several traditional societies “the worm” is the cause of sickness. The shaman, sucking on the patient, often pulls a bloody worm out of his mouth as evidence of having removed the cause of illness. “What’s worming you?” is still a common way of asking what is troubling someone.
2. Gambling is common in cultures where the concept of fate (karma) is strong. With a twist of the wrist, the dice are thrown, and fate reveals itself. Compare the German *werfen* (to throw) and *Würfel* (dice).
3. Sir Mortimer Wheeler, *Rome Beyond the Imperial Frontiers* (London: Penguin Books, 1955), 148.
4. H. G. Rawlinson, “Early Contacts between India and Europe,” in *A Cultural History of India*, ed. A. L. Basham (Oxford: Clarendon Press, 1975), 425.
5. Samuel Noah Kramer, *History Begins at Sumer* (Garden City, NY: Doubleday Anchor Books, 1959), 60.
6. Sheila Ostrander et al., *Psychic Discoveries behind the Iron Curtain* (New York: Bantam Books, 1973).
7. Maria Thun, *Aussaattage* (Biedenkopf/Lahn: Verlag Aussaattage, 1979), 21. When the moon is in Leo, weeds will germinate readily in a newly cultivated field. Cultivating when the moon is in Capricorn causes fewer seeds to sprout. To discourage weeds, one takes a handful of seeds, incinerates them, and scatters them over the fields when the moon is in a specific sign: for knotweed in Aquarius; bindweed in Pisces; dead nettle and mustard in Aries; grasses in Gemini; chickweed and buttercups in Cancer; dock in Leo; thistle, coltsfoot, and horsetail in Virgo; nightshade in Scorpio; crabgrass in Sagittarius; and so on.

8. Maria Thun, *Work on the Land and the Constellations* (Peredur, Great Britain: Lanthorn Press, 1977).
9. Kate Greenaway, *Language of Flowers* (New York: Gramercy, 1978).
10. Hans Strobel, *Bauernbrauch im Jahreslauf* (Leipzig: Verlag Koehler and Amelang, 1937), 30.
11. Claudia Müller-Ebeling, Christian Rätsch, and Wolf-Dieter Storl, *Witchcraft Medicine* (Rochester, VT: Inner Traditions, 2003), 19.
12. Jacob Grimm, *Deutsche Mythologie* (Frankfurt am Main: Ullstein Materialien, 1981), 1000.
13. P. Shepard, *A Scientist of the Invisible* (London: Hodder and Stoughton, 1954).
14. Six herbs are used in the biodynamic compost preparations: chamomile flowers, which are stuffed into cow intestines and buried in the soil for a year; dandelion flowers, which are similarly wrapped in the mesentery of a cow and buried; yarrow, which is exposed to the sun inside a stag's bladder during the summer and buried over the winter; oak bark, which is stuffed into the skull of a farm animal and buried in a wet spot for a year; nettle, buried in the ground for a year; and heliotrope (valerian), the juice of which is stored in a dark bottle. The composts are treated by inoculation with a pinch of each substance per square yard; the heliotrope juice is sprayed over the entire compost. Cf. Wolf D. Storl, *Culture and Horticulture*, 344–361.
15. Rudolf Steiner, *Autobiography* (New York: Rudolf Steiner Publications, 1977), 60–61.
16. Maurice Mességué, *Des Hommes et des Plantes* (Paris: Editions Robert Laffont, Opera Mundi, 1970).
17. Robert Graves, *The White Goddess* (London: Faber and Faber), 1975.

18. Jacob Grimm, *Deutsche Mythologie*, vol. 2 (Frankfurt am Main: Ullstein Materialien, 1981), 1000–1010.
19. David Conway, *The Magic of Herbs* (New York: E. P. Dutton, 1976), 7.
20. Barbara Griggs, *Green Pharmacy* (Rochester, VT: Healing Arts Press, 1997), 40.
21. Manly P. Hall, *The Secret Teaching of All Ages* (San Francisco: H. S. Crocker, 1928), 324.
22. Wolf D. Storl, *Healing Lyme Disease Naturally* (Berkeley, CA: North Atlantic Books, 2010), 263.
23. The full title of the *Herbal* of Nicholas Culpeper is *The English Physician or an Astrological Discourse of the Vulgar Herbs of This Nation, Being a Compleat Method of Physick whereby a Man May Preserve His Body in Health; or Cure Himself Being Sick, for Three Pence Charge, with Such Things One-ly as Are Grown in England, They Being Most Fit for English Bodies*.
24. Theophrastus Paracelsus, *Herbarius*, vol. 1, ed. Will-Erich Peukert (Basel/Stuttgart: Schwabe, 1965).
25. Blistering plaster was made from the small Spanish beetle (cantharides).
26. Clarence Meyer, *American Folklore Medicine* (New York: Thomas Y. Crowell, 1973), 3.
27. Nancy Nugent and the editors of *Prevention, Food and Nutrition* (Emmaus, PA: Rodale Press, 1983), 2–4.
28. Michael Harner, *The Way of the Shaman* (New York: Bantam Books, 1982), 174.
29. *Legal Status of Traditional Medicine and Complementary/Alternative Medicine: A Worldwide Review* (Geneva, Switzerland: World Health Organization, 2001), 4. Quoted in Raymond Obomsawin, *The Efficacy and Safety of Traditional Plant Medicines* (Ottawa, Ontario: National Aboriginal Health Organization, 2008), 7.

30. Barbara Starfield, "Is US Health Really the Best in the World?" *Journal of the American Medical Association* 284, no. 4 (July 26, 2000).
31. Holly Phaneuf, *Herbs Demystified* (New York: Marlow, 2005), 290.
32. Steven Foster and Rebecca L. Johnson, *Desk Reference to Natures Medicine* (Washington, DC: National Geographic, 2006), 339.

CHAPTER TWO. *Medical Models*

1. Cf. Robert S. Mendelsohn, *Confessions of a Medical Heretic* (New York: Warner Books, 1979), 17.
2. Wolf D. Storl, *Healing Lyme Disease Naturally* (Berkeley, CA: North Atlantic Books, 2010), 20.
3. This was due to the fact that many of the pharmaceutical corporations were in German hands (e.g., Bayer and Farben).
4. Richie Chandler, *Medicine and Man* (New York: Mentor Books, 1958), 9.
5. “The fascinating question thus presents itself: how many other country remedies—like the foxglove, unrecorded in the herbals—have never met their Withering and have been lost to orthodox medicine?” asks Barbara Griggs in *Green Pharmacy* (Rochester, VT: Healing Arts Press, 1997), 147.
6. Lonelle Aikman, *Nature’s Healing Art: From Folk Medicine to Modern Drugs* (Washington, DC: National Geographic Society, 1977), 96.
7. It is precisely this complexity of the natural drug that makes the testing demanded by the FDA so costly and difficult, if not impossible.
8. Illness is nature’s way of telling us to slow down; it is a time for quiet introspection and reassessment. But that is precisely what modern people have a hard time doing. They feel they are missing out on what’s happening. Traditional communities have cultural institutions to provide this (e.g., yogic meditation, the German *Feierabend*, or the Jewish Sabbath, where everything is shut down and all activity prohibited).
9. Heinrich Wallnoefer and Anna Rottauscher, *Chinese Folk Medicine* (New York: Crown, 1965).

10. The closest equivalent of Tai Chi in Western culture is eurythmy, developed by Rudolf Steiner. Designed neither as dance, sign language, nor gymnastics, it is concerned with moving the “ethereal body,” setting “etheric energy” in motion.
11. Stefan Kappstein, *Das Buch vom Ginseng* (Bern, Switzerland: Janós Morzsinay Verlag, 1980), 53.
12. A convergent treatment for deep-seated, very painful illnesses was developed by the Algonquin of the Eastern woodlands. They would burn bits of dry, rotten wood, which they called “punk” (from which is derived our modern word *punk*), directly on the skin. Cf. Virgil J. Vogel, *American Indian Medicine* (Norman: University of Oklahoma Press, 1970), 63.
13. Marc Duke, *Acupuncture* (New York: Pyramid Books, 1973), 75.
14. *Herbal Pharmacology in the People’s Republic of China: A Trip Report of the American Herbal Pharmacology Delegation* (Washington, DC: National Academy of Science, 1975).
15. In Indo-European legends, it is the the Aswins (*Aswini kumaras*), the Indian *dioskouri*, twin horsemen, sons of the sun, bringers of the morning light, whose healing powers made them physicians of the gods.
16. Pandit Shiv Sharma, ed., *Realms of Ayurveda* (New Delhi, India: Bulab Vazirani for Arnold-Heinemann, 1979), 22.
17. The neem tree or margosa (*Azadirachta indica*), a member of the Meliaceae family, is considered by the Indians to be a panacea for practically all diseases. Leaves and bark have strong antibacterial and antiviral properties. Fresh-cut twigs are chewed and used as toothbrushes.
18. Heinrich R. Zimmer, *Hindu Medicine* (Baltimore, MD: Johns Hopkins Press, 1984), 134.
19. At the time of Paracelsus, Nagarjuna developed the latest shoot on the old tree of Ayurveda, the *Rasa Shastra*. *Rasa Shastra*, like Paracelsian preparations, uses metals, minerals,

and poisons (especially mercury and sulfur) in its carefully made alchemical preparations. When the Portuguese introduced the *firanga roga* (foreigner's disease = syphilis) in the sixteenth century, Bhavamishra of Benaras treated it with mercury, just as Paracelsus did in Europe.

20. Plants can be happy and unhappy, and for “sick” plants, the *Vrikshayurveda* prescribes the chanting of mantras. For trees, plasters of cow dung and honey are used. Anthroposophists follow a similar tradition when they smear a mixture of cow dung, clay, lime, and herbal preparations on the trunks of fruit trees.
21. R. Solecki, “Shanidar IV: A Neanderthal Flower Burial in Northern Iraq,” *Science* 190 (1975): 880–881.
22. The Tungu or Tungus (also called Evenki) are a tribe of Siberian reindeer herders and hunters traditionally practicing a shamanic religion.
23. Arthur C. Parker, “Secret Medicine Societies of the Seneca,” *American Anthropologist* 11 (1909).
24. Wolf Dieter Storl, *Shamanism among Americans of European Origin: A Case Study in Diffusion and Convergence*, Doctoral dissertation submitted at the Phil. Hist. Fakultät, University of Bern, Switzerland, 1974.
25. Carl O. Simonton and Stephanie Matthews-Simonton, *Getting Well Again* (New York: Bantam Books, 1981).
26. For further information, see Judith L. Bolyard, *Medical Plants and Home Remedies of Appalachia* (Springfield, IL: Charles C. Thomas, 1981) and Clarence Meyer, *American Folk Medicine* (New York: Thomas Y. Crowell, 1973).
27. Storl, *Shamanism among Americans of European Origin*, 21–22.
28. An example of this attitude is seen in the history of scurvy, which led to the death of tens of thousands of sailors. Already in 1535–36, Algonquins had shown the French explorer of Canada, Jacques Cartier, how to avoid that scourge with the tea

of the hemlock tree (*Tsuga canadensis*); the Dutch had less trouble because they ate sauerkraut, and John Hawkins had already used sour oranges with success. It was not until 1795 that the British Admiralty ordered lemon juice issued to the sailors; and because it was cheaper to hire new crews than to supply them with limes or lemons, the merchant shippers did not care about preventing scurvy until the mid-nineteenth century.

29. John Witthoft, "Typology and Acculturation," *Bureau of American Ethnology Bulletin* 180, no. 9 (1961): 73.
30. John Monroe, *The American Botanist and Family Physician* (Wheelock, VT: Jonathan Morrison, 1824), 63.
31. Francis Densmore, *How Indians Use Wild Plants for Food, Medicine, and Crafts* (New York: Dover, 1974).
32. Abayomi Sofowora, *Medicinal Plants and Traditional Medicine in Africa* (Chichester, England: John Wiley, 1982), 26.
33. *Ibid.*, 67.
34. Julia F. Morton, *Folk Remedies of the Low Country* (1973), cited in Lonelle Aikman, *Nature's Healing Arts* (Washington, DC: National Geographic Society, 1977), 44.
35. Jack Herer, *The Emperor Wears No Clothes* (Van Nuys, CA: Ah Ha, 1985). German translation *Wiederentdeckung der Nutzpflanze Hanf* (Frankfurt am Main: Zeitausendeins, 1993), 75.
36. Lester Grinspoon and James B. Bakalar, *Marihuana: The Forbidden Medicine* (New Haven and London: Yale University Press, 1993).

CHAPTER THREE. *Philosophy of Western Herbalism*

1. On the “inside” of these material elements, visible to the inner eyes, are the “elemental spirits” of which Paracelsus writes. The inside he refers to cannot be revealed by the microscope or by dissection—that would merely expose another surface. Rather, the “inside” is the nonphysical, ethereal aspect of a thing or person.
2. C. B. J. Lievegoed, *The Working of the Planets and the Life Processes in Man and Earth* (Clent, Stourbridge, Worcester: Broome Farm, 1972).
3. For Nordic and Siberian cultures who live in cold climates, the sun’s feminine aspects—warmth and mildness—dominate the imagination. Here the sun appears not as a warrior with stinging arrows but rather as a motherly being giving life and warmth. Thus, in Germanic and many northeast Asian languages the sun is referred to as “she.”
4. According to Greek legend the robber Procrustes let his guests sleep in an iron bed. If they were longer than the bed, he cut them to size; if they were shorter, he stretched them until they fit. A Procrustean bed refers to any attempt to reduce people to one fixed standard.
5. Culpeper assigned the buttercup, or crowfoot, to Mars due to its acrid, fiery taste.
6. Biodynamic gardeners explain that when leaves turn gray and die off at the edges—a symptom of the lack of potassium—it is Saturn that impinges too heavily on the etheric constitution of the plant. If the leaves turn yellow for lack of nitrogen, it is Jupiter’s astrality that presses too heavily on the plant; and when the leaf veins turn red for lack of phosphorous, Martian forces are too strong.

7. The flu, or influenza, derives from the “flowing in” of “bad stars” (Latin *dis* = “against”; *astrum* = “star”; disaster).
8. Rudolf Steiner, *Agriculture* (London: Bio-dynamic Agricultural Association, 1974).
9. Our clocks with their twelve ciphers and the respective movement of the hour and minute hands are modeled on this version of the cosmos going back to Mesopotamia. Even now, the clock runs modern, secular man like a despotic god, a deity fallen from the heavens to the earth. The silicon chip watch even dispenses with the archetypical circular image.
10. For a more elaborate and precise presentation of the system, see Fritz H. Julius, *Das Tier zwischen Mensch und Kosmos* (Stuttgart: Verlag Freies Geistesleben, 1970), 303.
11. Maria Thun, *Hinweise aus der Konstellationsforschung* (Biedenkopf/Lahn, Germany: Verlag Aussaatage, 1973).
12. cf. Wolf D. Storl, *Culture and Horticulture: A Philosophy of Gardening* (San Francisco: Bio-Dynamic Farming and Gardening Association, 2000), 227.
13. Mellie Uyldert, *Plantenzielen* (Amsterdam: De Driehock, 1979).
14. Maurice Mességué, *Of Men and Plants* (New York: Macmillan, 1973), 9.

CHAPTER FOUR. *The Nature of Plants and Plant Medicines*

1. It should be noted that the *Urpflanze* is not the genealogical or evolutionary precedent of plants, but their underlying archetypal principle.
2. Werner-Christian Simonis, *Wege zum Heilpflanzenerkennen* (Stuttgart: J. Ch. Mellinger Verlag, 1975), 50.
3. Masaru Emoto, *The Message from Water* (Tokyo: HADO Kyoikusha, 2000).
4. Ehrenfried Pfeiffer, *Sensitive Crystallization Processes: A Demonstration of Formative Forces of the Blood* (Spring Valley, NY: Anthroposophic Press, 1936). Lilly Kolisko, *Agriculture of Tomorrow* (Stroud, England: Kolisko Archive, 1939).
5. For further details, see Storl, *Culture and Horticulture: A Philosophy of Gardening* (San Francisco: Bio-Dynamic Farming and Gardening Association, 2000), chap. 18.

CHAPTER FIVE. *How to Become an Herbalist*

1. Asian countries import about \$40 million worth of Appalachian ginseng (*Panax quinquefolium*) per year.
2. The ancient Celts picked their healing herbs at dawn, just before sunrise. They believed that dew—a magical water of the “in-between realm,” coming neither from heaven nor from the earth—fortified the plant’s healing powers.
3. *Barefoot Doctor’s Manual* (Philadelphia: Running Press, 2003).
4. Early alchemists talked only of sulfur and mercurius, as the *animus* and *spiritus*. Only later was sal added. It seems that Paracelsus first definitively set up the triad of sulfur, mercurous, and sal—perhaps under the influence of the Indian doctrine of the tridosha. These three principles permeate world processes: sulfur is the exploding centrifugal force; sal is its opposite in that it is imploding, concentrating, and hardening; mercurius becomes the intermediary, harmonizing principle. For Rudolph Steiner these three “world principles” are aspects of the personified Beings of Lucifer (the Lightbringer), Christ, and Ahriman (Satanas).
5. Organic farmers and gardeners argue similarly, saying that insects and fungi attack plants that are ethereally weak, anyway, because of lack of humus or water or because of pollution. To use insecticides or fungicides is to mask the symptoms whereby Mother Nature tells us that there is a problem somewhere else.

CHAPTER SIX. *From Staples to Poisons*

1. A torture devised by the Aztecs consisted of asking the prisoner about his favorite food and then serving it to him constantly, without change, until he died.

Solids		Liquids	
1 grain (gr) =	0.0648 grams	1 minim =	1 drop = .065 cc
1 drachm =	1 tsp =	4 grams	1 fluid dram =
1 tsp =	4 cc		
1 scruple =	1/3 tsp =	1.6 grams	
1 ounce =	1 oz =	30 grams	1 fluid ounce =
1 oz =	30 cc		

2. Apothecaries' measures (simplified):
3. Raymond Obomsawin, *The Efficacy and Safety of Traditional Plant Medicines* (Ottawa, Ontario: National Aboriginal Health Association, 2008), 14.

CHAPTER SEVEN. *Vegetables as Medicines and Wild Foods*

1. Peter Farb and George Armelagos, *Consuming Passions: The Anthropology of Eating* (New York: Washington Square Press, 1983), 38.
2. Nancy Nugent and the editors of *Prevention, Food and Nutrition* (Emmaus, PA: Rodale Press, 1983).
3. Maurice Mességué, *C'est la nature qui a raison* (Paris: Opera Mundi, 1972), 93.
4. Nancy Nugent, *Food and Nutrition*, 93.
5. Translation: If a woman knew what celery does to a man, she would run from Paris to Rome to get some; if the man knew the effect of celery, he would fill his little garden with it.
6. Translation: The bread comes from the grain, the grain from the light, the light from the countenance of God. The fruits of the earth, from God's radiance: Let there also be light in my own heart.

Earth nourishment, earth bread, our body needs you. When we eat of you with joy, let us not forget heaven, which within the earth's forces works wonders and creates life.

CHAPTER EIGHT. *Herbs in Cooking and Beauty Care*

1. The salty nature of George Oshawa's macrobiotics reflects its cultural origin in the rice and seafood cuisine of Japan. The Japanese have developed a tolerance for salt, much as the Andean Indians have for high altitudes. Japanese monks have even turned themselves into mummies by committing suicide through a salt diet.

CHAPTER NINE. *Raising Herbs in the Garden*

1. John Jeavons, *How to Grow More Vegetables* (Palo Alto, CA: Ecology Action of the Mind-Peninsula, 1974).
2. In the form of their manures, animals bring “astrality” (soul substance) to the plants. Plants, as purely physical-etheric organisms, lack this astral component. The flora of a geographical area is a reflection of its etheric formative forces; the fauna of this landscape is a reflection of the macrocosmic astrality that belongs to it. Cf. Storl, *Culture and Horticulture: A Philosophy of Gardening* (San Francisco: Bio-Dynamic Farming and Gardening Association, 2000), 117.
3. Helen Philbrick and Richard B. Gregg, *Companion Plants* (London: Stuart and Watkins, 1967).

Louise Riotte, *Secrets of Companion Planting* (Charlotte, VT: Garden Way Publishing, 1975).

4. The concept of mother weeds was developed by Joseph Cocannouer in *Weeds: Guardians of the Soil* (New York: Devin-Adair, 1971).
5. Franz Lippert, *Vom Nutzen der Kräuter im Landbau* (Stuttgart: Forschungsring für biologisch-dynamische Wirtschaftsweise, 1953).

CHAPTER TEN. *The Garden of Hecate*

1. Cf. Wolf D. Storl, *Shiva* (Rochester, VT: Inner Traditions, 2004), chap. 10.
2. In Mesoamerica, the dichotomy was reconciled in the image of Quetzalcoatl, the plumed serpent, who is half snake and half eagle.
3. Charles K. Levy and Richard B. Primack, *A Field Guide to Poisonous Plants and Mushrooms of North America* (Brattleboro, VT: Stephen Greene Press, 1984), 6.
4. In 1998 about a hundred people died in the United States after ingesting common, ordinary nuts. “In the same time period, despite millions of doses, less than 100 died after consuming an herb or herbal product, with more than 90 percent of these persons having intentionally engaged in either misuse or abusive usage. Research for the same year suggests that there were no deaths due to ingestion of an herbal product when employing a safe recommended dosage. By comparison, a report published within a few years in the *Journal of the American Medical Association* (JAMA) confirmed at least 106,000 deaths annually in the U.S. from non-error, adverse effects of allopathic medication.” Raymond Obomsawin, *The Efficacy and Safety of Traditional Plant Medicines* (Ottawa, Ontario: National Aboriginal Health Organization, 2008), 14.
5. Rudolf Steiner, *Agriculture*, lecture 3 (London: Bio-dynamic Agricultural Association, 1974), 42.
6. Rudolf Hauschka, *Substanzlehre* (Frankfurt am Main: Vittorio Klostermann, 1976), 105.
7. Mushrooms or fungi are, of course, not plants but a kingdom of their own. Their metabolism is quite different. They flee the light (they never photo-synthesize), and they contain no cellulose; rather, they consume cellulose. Nonetheless, we will

include the *Amanita* in this list as it is one of the most poisonous things growing from the ground.

8. Robert Beverly, *The History and the Present State of Virginia* (London, 1705). Cited in Richard M. Mercer, ed., *America Begins* (New York: Pantheon Books, 1950), 98.
9. Eliot Wigginton, *Foxfire 2* (Garden City, NY: Anchor Books, 1973), 67–69.

CHAPTER ELEVEN. *Women's Culture and Witches' Craft*

1. Cited in Jacob Grimm, *Deutsche Mythologie* (Berlin: E. Meyers, 1875–1878), 1005. In the original:

Alrawn du vil giïet

Mit trawrigen müet

Rüef ich dich an

Das du meinen leidigen man

Bringst darzue

Das er mir kein leid nimmer tue.

2. Wolf D. Storl, “The Witch as Shaman,” in *Witchcraft Medicine*, ed. Claudia Müller-Ebeling, Christian Rätsch, and Wolf-Dieter Storl (Rochester, VT: Inner Traditions, 2003), 40.
3. Peter Farb and George Armelagos, *The Consuming Passion* (New York: Washington Square Press, 1983), 103–105.
4. Robert S. Mendelsohn, *Male Practice* (Chicago: Contemporary, 1982), chap. 11, “It’s Safer than Pregnancy.”

CHAPTER TWELVE. *Consciousness, Society, and Drugs*

1. The king of Thebes, Cadmus, was torn to pieces by his own mother and sisters. In their wild, drunken frenzy they mistook him for a beast. In this way, the god of wine conquered the king who stood in his way.
2. Marshall Sahlins, *Stone Age Economics* (New York: Aldine, 1972).

CHAPTER 13. *The Third Eye and Magic Flight*

1. Willy Schroedter, *Pflanzengeheimnisse* (Flensburg, Germany: G. E. Schroeder Verlag Kleinjoerl, 1981), 118.
2. Charles K. Levy and Richard B. Primack, *A Field Guide to Poisonous Plants and Mushrooms of North America* (Brattleboro, VT: Stephen Greene Press, 1984), 38.
3. Francesco Festi and Antonio Bianchi, “Amanita muscaria,” in *Integration*, no. 2 and 3 (Eschenau, Germany: Bilwis-Verlag, 1992), 79.
4. *The Greek Herbal of Dioscorides* (illustrated by a Byzantine, ^{AD} 512, Englished by John Goodyer ^{AD} 1655, edited and first printed ^{AD} 1933 by Robert T. Gunther). Facsimile reprinted 1968 by Hafner, London and New York.
5. O. v. Hovorka and A. Kronfeld, *Vergleichende Volksmedizin*, vol. 1 (Stuttgart: Verlag Strecker and Schroeder, 1908), 195–196.
6. Translation:

The cockroaches, the cockroaches
They can not march on,
Because the have no, because they have no
Marijuana to smoke.

CHAPTER FOURTEEN. *Talking to the Plants*

1. Deva, from the Sanskrit word for a “divine being full of light,” is certainly an appropriate designation for the plant archetype. Plants cannot exist without light: through their chlorophyll they are wed to the sun, and with the power of sunlight they are able to enliven the lifeless mineral world. The word deva is related to the Latin *Deus* (God) and *divus* (godlike), and to the Welsh *duv* and the Irish *dia*, which also refer to gods of light.
2. Abayomi Sofowara, *Medical Plants and Traditional Medicine in Africa* (Chichester, England: John Wiley, 1982), 4.
3. See the [appendix](#) for Vedic chants addressed to herbs.
4. *Rigveda* 10:97. Kenneth G. Zysk, *Medicine in the Veda* (Delhi, India: Motilal Baranasidass, 1996), 99.
5. Edith Grey Wheelwright, *Medicinal Plants and Their History* (New York: Dover, 1974), 103.
6. *Leechdoms, Wortcunners, and Starcraft*, vol. 2 (A Collection of Documents, for the most part never before printed, illustrating the History of Science in this Country before the Norman Conquest, collected and edited by Rev. Oswald Cockayne and M. A. Cantab) (London: Longman, Green, Longman, Roberts and Green, 1865), 351.
7. *Arupa Devachan* is Sanskrit for “the heavenly world beyond formed images.”
8. Paramahansa Yogananda, *Autobiography of a Yogi* (Los Angeles: Self-Realization Fellowship, 1969), 360.
9. Ken and Pat Kraft, *Luther Burbank: The Wizard and the Man* (New York: Merideth Press, 1967), 131.
10. One example is the well-known biodynamic plant breeder Martin Schmidt, of Bavaria, known as Rye-Schmidt because he

has been able to “talk” the rye plant into bigger ears of better quality.

CHAPTER FIFTEEN. *Family Portraits*

1. Richard Grossinger, *Planet Medicine* (Berkeley, CA: North Atlantic Books, 1990), 33.

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About the Author

Anthropologist Wolf D. Storl's area of research is shamanism and healing in traditional societies with a focus on the role of plants in all aspects of life, including sacred symbolism, magic, medicine, foods, and poisons.

Born in Saxony, Germany, he was educated in the United States. He studied biodynamic farming in the 1970s and in 1974 he received his PhD at the University of Berne, Switzerland, as a Fulbright scholar. In the following years he taught anthropology at Rogue Community College in Oregon, conducted participant research on a traditional peasant farm in the Emmental region of Switzerland and among vigneron in Charente-Maritime, France, and taught cultural ecology at the University of Berne, Switzerland.

In 1982, he spent a year as an official visiting scholar at the Benares Hindu University, Varanasi, India. After returning to the United States in 1984, he spent much time with traditional medicine persons of the Cheyenne and taught courses at Sheridan College, Wyoming. After another term in India and Nepal, he and his wife moved to Germany where he began to write books as a freelance writer and lecturer.

Storl has traveled and conducted research in South Asia, India, Mexico, the Canary Islands, South Africa, and much of Europe, pursuing ethnobotanical and ethnomedicinal interests. He has written some twenty-five books and many articles, mostly in German, which have been translated into various languages, such as English, Dutch, French, Italian, Portuguese, Polish, Japanese, Danish, Lithuanian, Latvian, and Czech. Storl is a frequent guest on German, Swiss, and Austrian television, and has appeared on BBC.

He lives with his family and a number of pets in the forested foothills of the Alps in southern Germany, where he gardens, collects herbs, conducts ethnobotanical studies, and writes his books.

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