



HEALING LYME DISEASE NATURALLY

History, Analysis,
and Treatments

WOLF D. STORL

Foreword by MATTHEW WOOD,
author of *The Earthwise Herbal*

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and Treatments



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Foreword by MATTHEW WOOD, MS

Foreword by ANDREAS THUM, MD



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FOREWORD

Matthew Wood, MS (Herbal Medicine)

Registered Herbalist (American Herbalists Guild)

The book you hold in your hands is exciting. Its principle purpose is to discuss the so-called plague of the outdoorsman, Lyme disease, and to reveal a reliable, safe, common, oft-proven remedy for most cases of Lyme disease, the common roadside weed, teasel (*Dipsacus sylvestris*). Wolf-Dieter Storl's fast-paced journey through the material reads like an adventure story—which it is—of the author's own migration from sickness to health and of his education in Lyme disease. The most modern research is brought to bear on the subject, including evidence showing that antibiotic treatment is a failure, except in the first few weeks after infection. The nature of the Lyme spirochete, *Borrelia burgdorfi*, is discussed at length. But this book is much more. The author is a medical anthropologist and ethnobotanist. Instead of merely reviewing the scientific literature, he questions it, and asks spiritual and mystical questions about soul, spirit, healing, shamanism, and the nature of modern biomedicine. Dr. Storl is also familiar with the basic tenets of European naturopathy, which values sunlight, the outdoors, air, water, freshwater and saltwater bathing, the earth, and good food. Then he is an experienced herbalist with knowledge, not only of the modern phytotherapeutic tradition of scientific herbalism, but of traditional central European plant and woods lore.

When a book is written that is profound and searching, the author comes across all sorts of helpers along the way. A deep book even awakens one's ancestors. Dr. Storl's maternal ancestors, for many generations, were weavers. In a touching account, his grandfather opens a tattered old box and reveals the core instrument of his profession, the ancient (still used) Fuller's teasel (*Dipsacus fullonum*), a hybrid of the wild teasel, used to card wool.

This book is important because it fearlessly crosses the lines of various scientific and supposedly unscientific disciplines. In the first chapter Dr. Storl introduces us to medical anthropology. He points out that there are many roads to truth, not just the culturally accepted, narrowly defined medical science. Anthropology helps us to see that healing is usually attributed, across the world, to the spirit or soul, and that for most people it involves mystical, mythical, clairvoyant, psychic, intuitive, and other culturally taboo approaches.

The discovery of teasel is a case in point. It is almost an incarnation of the intuitive approach. This part of the story starts with me, and I might as well describe my appearance in the story in my own words. Intuition is the faculty (Jung calls it a psychic function) within us that helps us to see patterns. Really, it is the part of us that quests for the whole and is thus, in great measure, the foundation of true holistic medicine. The humoral or energetic systems of Chinese, ayurvedic, Greek/Arabic, and other traditional

medicines provide descriptions of patterns, constitutions, and typology that are intuitive. Through the exercise of intuition, we learn to pick out the pieces of the pattern, to see the whole, and treat the whole. This element of complementary and alternative medicine (CAM) is still not accepted in conventional biomedicine and is therefore, still “alternative.” As a ruthless intuitive I therefore find myself still in the alienated ranks of alternative practitioners and I am grateful for an author like Storl who can supplement my approach with both biomedical research and the possibilities of a spiritual approach.

Jung called the intuition unconscious thinking, at least in his earlier writings, but nothing could be farther from the truth. The intuitive, just like the materialist, needs a lot of loose facts and ideas to study before experiencing the a-ha moment when the parts integrate into a whole. To discover teasel as a remedy for Lyme disease I needed information from many sources. Lyme disease is caused by a spirochete related to the syphilis bacterium, therefore the study of an old disease would help reveal a new one. Syphilis attacks the hard structures of the body: bones, cartilage, tendons, joints, and the analogous properties of the mind. Just as it destroys the integrity of the hard structures, it breaks down the integrity of the mind, and even the soul and moral character. From homeopathy I picked up the doctrine of the miasma of chronic syphilis, the idea that various degrees of syphilis could remain deep in the core of the body, occasionally sending up symptoms, just like a bout of Lyme. From traditional Chinese medicine I learned about the *jing* (essence) that is attacked by syphilis. The *jing* rules the healthy unfoldment of the bones and hard structures, and the healthy passage of genetic integrity from one generation to the next. This led me to teasel (*Dipsacus japonica*), one of the great remedies for deterioration of the *jing*. This appeared to be a possible remedy.

It happened that I used the Western teasel (*Dipsacus sylvestris*), native to Europe but naturalized in North America, instead of the East Asian species used in Chinese herbalism. This is because William LeSassier, an herbalist and acupuncturist who was not afraid to jump cultural lines and adopt one herb for another, had taught me about teasel. He said that Western teasel had the same properties as Asian teasel. “It is for severe wounds to the muscles, bones, and joints,” he said. “You mean like arnica?” I asked. “No, more like a triple-whammy arnica. The joint isn’t just stretched, it is torn. The bone is not just bruised, it’s broken.” So that was how I came to use *Dipsacus sylvestris*. And I might add: I am not sure that *Dipsacus japonica* will affect Lyme like its Western cousin. That remains to be seen.

William is believed to be the first non-Chinese American to be intimately trained by Chinese herbalists. He was clairvoyant and intuitive. He liked to say, “Herbalists use herbs in different ways. I taught Matt Wood to use teasel. He uses it to treat Lyme disease; I don’t.” I have to acknowledge William for his contribution to my knowledge.

I also have to thank a patient, Diane A., who “forced” me to discover the use of teasel for Lyme. She had suffered from the disease for about five years. She was deteriorating and increasingly desperate. Finally, she just grabbed hold of me and wouldn’t let go until I came up with an answer for her. I was reminded of the biblical parable of the

widow, who didn't have the money to prosecute her case but camped out on the doorstep of the judge until he agreed to hear it. Teasel came to my mind. After about two weeks Diane called back and reported she was getting better. I still remember her exact words: "This medicine gets to the very mechanism of the immune system." A confirmation came a few weeks later. A light snow fell in mid-April and I noticed deer tracks from all directions leading to the teasel, which they had mowed down to the ground.

What have I learned since then? Herbs almost never kill bacteria directly, unless they are used in huge, toxic doses, as with goldenseal or echinacea. I don't support this abuse, as I call it, of healing medicine plants. The correct way to use herbs is holistically, that is, to treat the underlying pattern of imbalance. Once that is corrected, the critters will leave. They are just scavengers living off imbalanced tissue. Thus, we use medicinal herbs to increase or decrease circulation, stimulate or sedate the lymphatics, liver, and kidneys, sharpen nerve responses, or in the case of pain, restore balance. Virtually every herb I know works on a tissue state, not on bacteria. Surprisingly, teasel not only works on a tissue state (functional depression), but it virtually kills a bacterium, *Borrelia burgdorfi*. This is probably because it so effectively removes the environment in which the spirochete and its toxins live. It is an amazingly exact medicine in this sense.

People are always looking for the so-called magic bullet in medicine and alternative medicine. That is not the holistic approach. There is no "one size fits all" for all people in holism. We are too individualistic. Every once in a while something comes along that is helpful across a wide spectrum. However, our search for healing should not end there. We want to know ten good herbs for Lyme, not one. Dr. Storl knows this and provides a lot of information about a lot of different therapies in addition to teasel.

What have I learned since I first wrote about teasel more than ten years ago? First, it sometimes needs to be used for not just three to five weeks, but three to five months. I had one client who needed it for a year and a half. Follow your intuition when using. I still prefer the small doses (three drops is good), but follow your intuition. If you are Herxing uncomfortably, cut down the dose.

Additional remedies I believe help Lyme are usually bitters. Dr. Storl touches on this. Bitters cleanse. There is much pharmacological data behind that statement that we don't need to go into. Bitters also can cause a shiver to go down through the sympathetic nervous system. This, I believe, is why they can cure deep chills and fever, such as we have in Lyme, malaria, and other bacterial diseases. I recommend blue vervain (*Verbena hastata*) or vervain (*V. officinalis*) for Lyme (perhaps erlichiosis?) where there is much pain, stiffness, and loss of function in the neck and upper shoulders. I recommend *Apocynum androsaemifolium* homeopathic 6x for high-impact cases that knock a person off the horse or the chair with their intensity. I recommend *Andrographis*, from ayurvedic medicine, a profound bitter, and cat's claw, from South America. Consideration should also be given to the non-bitter Japanese knotweed. And there are always more, all we need, around the corner of the country road, in God's country.

FOREWORD

by Andreas Thum, MD

Is Lyme disease a treacherous and chronic tick-borne infectious disease, which randomly befalls anyone, and does it seem to be incurable with our methods? Or are there parallels in medical history that help us understand and learn to cure Lyme disease, the plague of modern times?

In 1536 Jaques Cartier, the discoverer of Canada, was caught off guard by an early onset of winter. He and the members of his expedition were forced to spend the winter on the St. Lawrence River. After only a short time, twenty-six of 100 men died of scurvy and the rest were gravely ill, though there was no lack of meat nourishment. Local Indians took pity on the white men and gave them an infusion made of Canadian hemlock tree needles:

The result was miraculous: the scurvy vanished immediately. All the doctors in the learned medical institutions from Montpellier, France to Leuven, Belgium, would not have achieved in an entire year's effort that which was achieved by 6 days of drinking that fir needle concoction!

—ALBERT VON HALLER (1995:40)

In 1757 the English marine physician, Dr. Lind of the frigate Salisbury, conducted a successful experiment: two of twelve sailors who were sick with scurvy were given nothing but lime juice as medication and the other ten received the then-common medication used for scurvy. The crew witnessed a sensational spectacle: the two sailors who were treated with lime juice got better each day and were able to leave the ship in a state of good health. Not until 1794 was this experiment repeated on the entire British fleet, when all the sailors were supplied with a daily ration of lime juice with the astonishing result that the sick bay remained empty and no one came down with scurvy. It wasn't until ninety years later, in 1884, that this knowledge was applied and each sailor regularly got a daily ration of lime juice (hence "Limeys" as a later nickname for the English). Limes were so expensive in the earlier days that it was, sadly enough, cheaper to get a new crew in the next harbor than to furnish limes. In any case, British dominance at sea was ensured to a great degree thanks to limes.

In 1905 the remainder of the formerly proud czarist fleet sank in the Strait of Tsushima, upon defeat by the military dwarf, Japan. The reason for this ignominious defeat? The Japanese sailors enjoyed better nutrition! Dr. Takaki had accomplished a turnaround in the nourishment for the sailors in Japan. With much resistance from his superiors, who held to the relatively new (1878) theory of Louis Pasteur claiming that microbes cause contagious infectious disease, he was finally allowed to carry out the following experiment: Two ships, each with 300 sailors on board, left Japan for a journey of several months. The first ship had the usual nourishment, including polished

rice, on board. The second had nourishment similar to that on British ships: oats, vegetables, fish, meat, and condensed milk. When they returned, two-thirds of the sailors on the first ship were severely sick with beriberi. The second ship had only four beriberi patients on board. That very year beriberi was reduced among Japanese sailors from forty percent to one percent. The Strait of Tsushima was free and this was due more to better nourishment than better weapons.

We can also see Lyme disease today in a larger context of causes and by so doing we can find real possibilities for healing, which even have a positive effect on other ailments, instead of reducing the sickness to symptoms. This is what we can find in Wolf Dieter Storl's book: the necessary paradigm shift in our thinking about health, from an atheistic-materialistic worldview to the recognition of and reverence for the reintegration of the human being into the infinitely wise course of nature. The author leads us in a gracious way and with professional competence through his work into this paradigm shift, which is necessary for the survival of humanity.

In these times we need competent and responsible people for the implementation of healing ways that are based on the natural laws of healing, whose goal is spiritual and bodily health. The already existing institutions can be used for the spreading and application of such knowledge.

The great time which is imminent, but somehow cannot quite dawn, will bring the implementation of the knowledge which has been amassed in the past eighty years. The times in which we live have a reserve of possibilities which is magnificent and superior beyond any thing historically known.

—ALBERT VON HALLER (1995:334)

INTRODUCTION

A Fall from a High Horse

*Doctors shouldn't be surprised that there is more to nature than their art.
After all, what can surpass the magnitude of nature?
He who knows not nature can therefore not really know the healing arts.
In every single herb there is more virtue and strength than in all the papers
Read in universities, which are, anyway, destined to become dust.*

—PARACELSUS

*Do you want to know your innermost being?
Then look at the world in all its aspects.
Do you want to truly perceive the world?
Then look into the depths of your own soul.*

—RUDOLF STEINER

Lyme disease seems to be taking on epidemic proportions. One might even say Lyme disease is *en vogue*. There are ever more publications on the subject. These are usually in line with established medical theories, upholding contemporary cultural constructs of reality, and they do not venture beyond set boundaries. The vectors of Lyme disease—tick bite and resulting borrelia infection—are described, diagnoses are made, and a scientifically sound solution is offered: treatment with antibiotics. Unfortunately, these miracle drugs, antibiotics, barely help against Lyme disease and even appear to have harmful results in cases of chronic Lyme disease.¹ Borrelia are “clever” bacteria that can overcome our strongest weapon, antibiotics. Perhaps these miniscule beings aren’t as unintelligent and primitive as we assume?

The common belief about using antibiotics is that if a little bit helps, more is even better. “Reinforcement” in the form of higher doses and for longer time periods is deemed necessary. That is the only thing mainstream medicine has to offer in the way of treatment. It seems difficult to admit that Lyme disease, especially chronic Lyme disease, is yet another indication that the age of antibiotics has reached its limits.

Even alternative medicine has a hard time finding its position on the matter. Like Sancho Panza, it trots on its “alternative” donkey behind the proud medical establishment, Don Quixote. They are both going in the same direction, alternative medicine carrying a bag of numerous confusing “natural” cures. But both approaches, mainstream establishment medicine and alternative medicine, adhere to the officially sanctioned scientific worldview. Since the Enlightenment, when it was refreshing to turn away from obscure old wives’ tales and superstitions, the focus of modern medicine has

completely excluded an intuitive approach to treatment. Was the baby possibly thrown out with the bath water back then? Of course it is difficult to distinguish the true from the false in such non-material realms as intuition, clairvoyance, and other forms of traditional, “old-fashioned” folk medicine. Perhaps one way is to observe the *concrete results* very exactly in order to avoid charlatans with “miracle cures” that are useless. It is time for a *really* new approach. It is here that medical anthropology can lend support.

Medical Anthropology (Ethnomedicine)

Ethnologists and cultural anthropologists are aware that other models exist to explain sickness, and other methods of healing are possible than that offered by the modern medical paradigm. For a long time, no one doubted the assumption that modern Western medicine is “objective,” free of metaphysics, invulnerable and scientifically proven (Pfleiderer 1995:45). By contrast, the healing methods of non-Western cultures were seen as based upon superstition and non-empirical, unprovable assumptions and were considered to be full of irrational practices. On closer examination this modern attitude shows itself to be ethnocentric. Again and again cultural anthropologists have been able to substantiate that practitioners from non-Western civilizations—traditional Chinese healers or ayurvedic doctors (*vaidas*) from India, for example—work very successfully with models that are practically incomprehensible in Western terms. Also, herbal healers, drumming and dancing Indian medicine people, African witch doctors mixing poisonous brews and invoking ancestral spirits, South American *curanderos* operating with consciousness-altering plants, ecstatic Siberian shamans, and other healers among so-called “illiterate people” are able to show impressive results. These observations are now recognized in resolutions of the World Health Organization (WHO) and UNESCO. Already in 1976, WHO acknowledged the essential role that these traditional healers play in securing health care for more than half the world’s population (Foster and Johnson 2006:10). On the occasion of the Conference on Primary Health Care in Alma-Ata, Kazakhstan, in 1978, WHO demanded a reevaluation of the methods of traditional medicine and their standing in modern medicine (Heinrich 2001:2). From the view of medical anthropology, established Western medicine does not, in any case, have the final word regarding healing and medicine. It does not have the sole claim on healing, but presents, exactly as all the others do, only one of many possible approaches. Like other paradigms, it is also a construct, a product of certain historical and cultural processes. Our medical research doesn’t really “discover” already existing, objective facts, but “produces” these facts through the interaction between the researcher and his object. Without our being aware of it, the method works on *a priori* principles that are not put to question.

For example:

- We assume dichotomies: nature versus human culture, body versus mind, individual versus society, feelings versus rationalism, health versus sickness, natural versus

unnatural, objective versus subjective.

- We assume that with logic and science one can understand natural processes such as the course of sickness and of healing.
- We assume that one can control, manipulate, or even change the course of the natural world or the human body by applying technological methods, based on the modern concept that the human being is basically a machine—admittedly a complex, cybernetically networked bio-machine in which the brain operates like a computer motherboard, storing its data. In line with these images are such concepts as “running out of energy,” “worn out,” “wound up,” “empty batteries,” “broken ticker,” “plugged-up pipes,” and so on. Bionic Man and Arnold Schwarzenegger as the Terminator fit into this worldview, just as the idea that brain-dead individuals or clones can be a source of spare parts and that kidneys, hearts, and livers can be replaced like carburetors and spark plugs in a car.
- We assume that belief in ancestral spirits, gods, and other supernatural beings is superfluous and should be discarded when trying to understand the behavior of disease (Lock and Scheper-Hughes 1996:43).



Shamanic healer

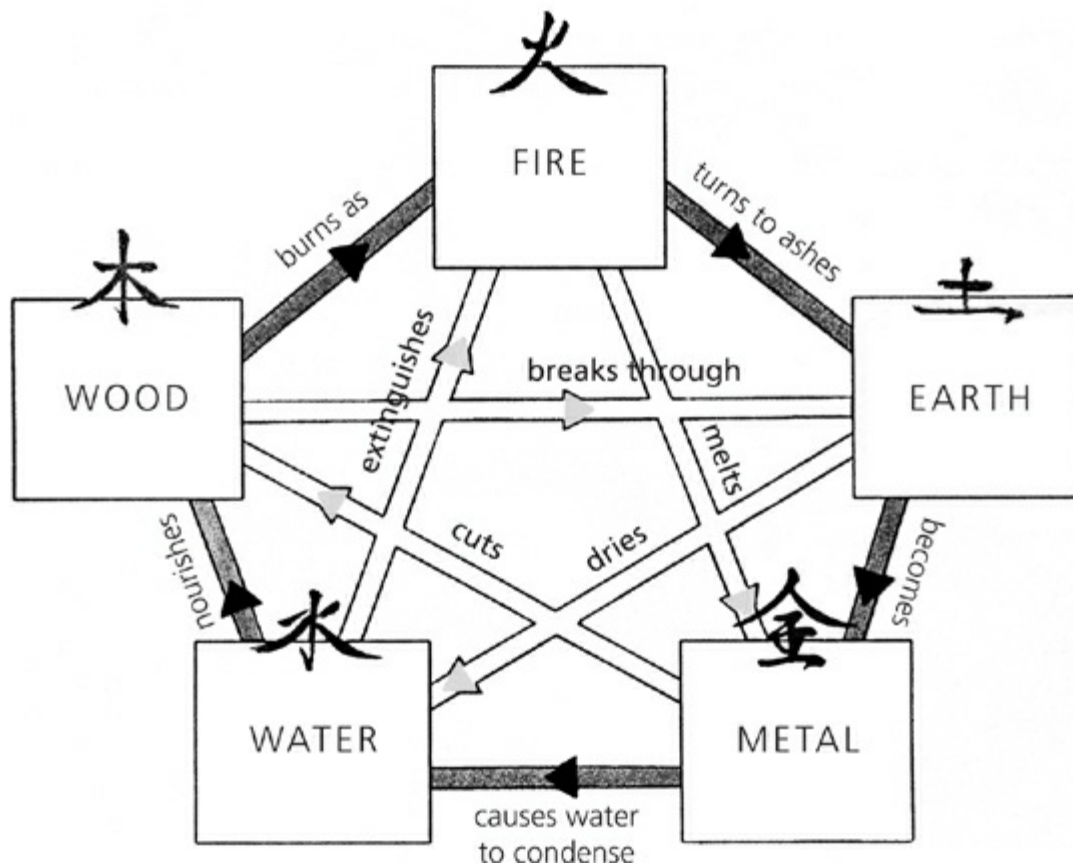
“What kind of a body does society want from us, does the government want?” asks the French philosopher, Michel Foucault. This profound question demonstrates that a body is not just a biological “given.” It is—like medical diagnosis and therapy—a cultural construct. Since the Enlightenment, the physical body has been separated from the soul and been increasingly viewed as a mechanism. It wasn’t until the twentieth century that attempts were made to return to a holistic view and, at least in humanistic psychology and psychosomatic disease studies, to heal the break between body and soul.

But even here, researchers try to discover “real” reasons, material and organic reasons, such as hormone imbalance and brain metabolism, that underlie our thoughts and feelings.

There are as many models regarding the human body as there are healing systems. Traditional people do not imagine the body, its insides and the way the organs function, as mechanical. They also do not reduce “reality” solely to what is externally observed, weighed, and measured. That does not mean that they do not observe exactly and carefully. They observe natural phenomena often more exactly than science-oriented people do (Levi-Strauss 1966:Ch. 1). However, they do not exclude energetic, psychic, and spiritual aspects right from the start as “unreal,” “subjective,” or “irrelevant.” It is not a clock or a computer that is the mental model for them, but the countryside, the climate, the change of seasons, or the movement of the planets. Making analogies to the changing of the seasons and the rhythms of nature, seemingly unsophisticated people recognize and understand what happens in the human microcosm. The whole of nature, the macrocosm, is itself a breathing, living body. It is “mother earth,” the primordial giant or the original hermaphrodite, which sacrificed itself and became creation. In many traditional cultures nature is the prototype for the human body; its bones are stone formations found in the landscape, its veins and arteries are rivers and lakes, its heart the sun, its mind the moon, its brain the clouds, its skin the humus of the soil, its hair the forests and grass, its womb the springs and swamps, its breasts and limbs the hills and mountains, and its breath the wind.

For most contemporary citizens this metaphor seems naive and primitive. But metaphors work quite well and can create useful references. For example, in traditional Chinese medicine, functional patterns and changing phases connect five elements, five seasons, five different tastes, five moods, and five bodily parts with each other: *wood* (liver, gall, anger, spring) burns as fire; *fire* (heart, joy, summer) becomes earth or ash; *earth* (spleen, worry, late summer) produces metal; *metal* (lungs, sadness, fall) melts and becomes liquid; and *water* (kidneys, timidity, winter) nourishes wood once again.

The healers in ancient Greece used a similar model. Four seasons, with their differing degrees of heat and moisture, correspond to four temperaments (blood, yellow bile, black bile, and phlegm), four elements, four times of day, four stages of life, four types of personality, and other manifestations. For more than two thousand years, until after the Renaissance, this metaphor was used for healing.



The Chinese model: yin/yang and the five elements

Kallaway Indians in Bolivia compare the body to a mountain, with a head, a heart (the village), stomach, inner organs, breasts, feet, and so on. Springs and streams are its blood, the changing of the seasons are its life-rhythm. Clearcutting and mining endanger its health; earthquakes, landslides, and flash floods are sicknesses. One heals human ailments by doing rituals around a holy mountain near the village (Lock and Scheper-Hughes 1996:57).

The ancient Egyptians compared the human body to the green Nile Valley, surrounded by barren, dusty desert. The Nile River was compared to a digestive system from mouth to colon, which makes life possible by depositing fertile mud, refreshing and nourishing the vegetation, and washing away the stale, infested water in the canals. What mattered was to balance out any drying, unusual changes, disturbances, blockades, and fluid accumulations. For that reason, the most important Egyptian medicines were laxatives, emetics, enemas, and bleeding.

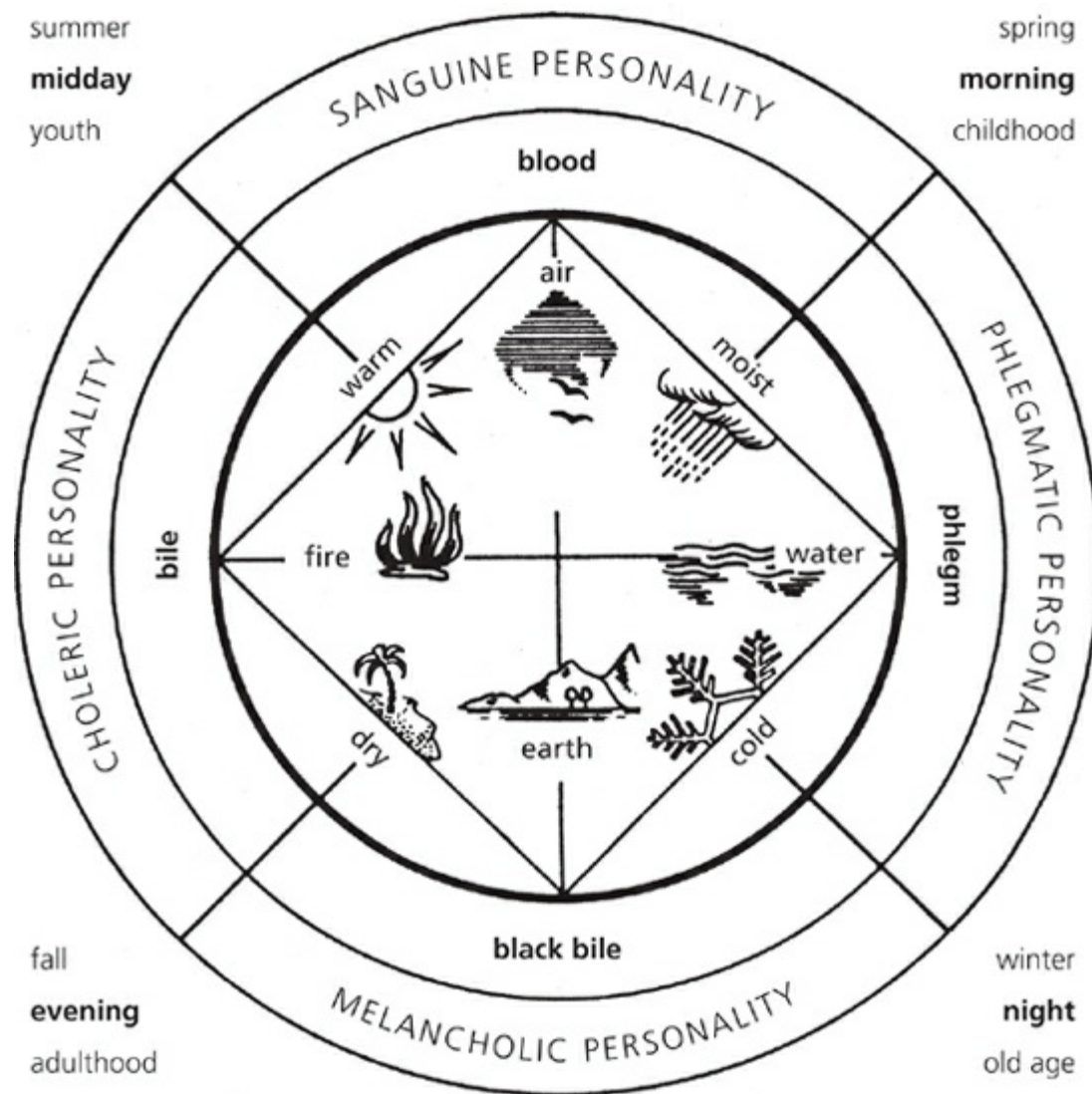
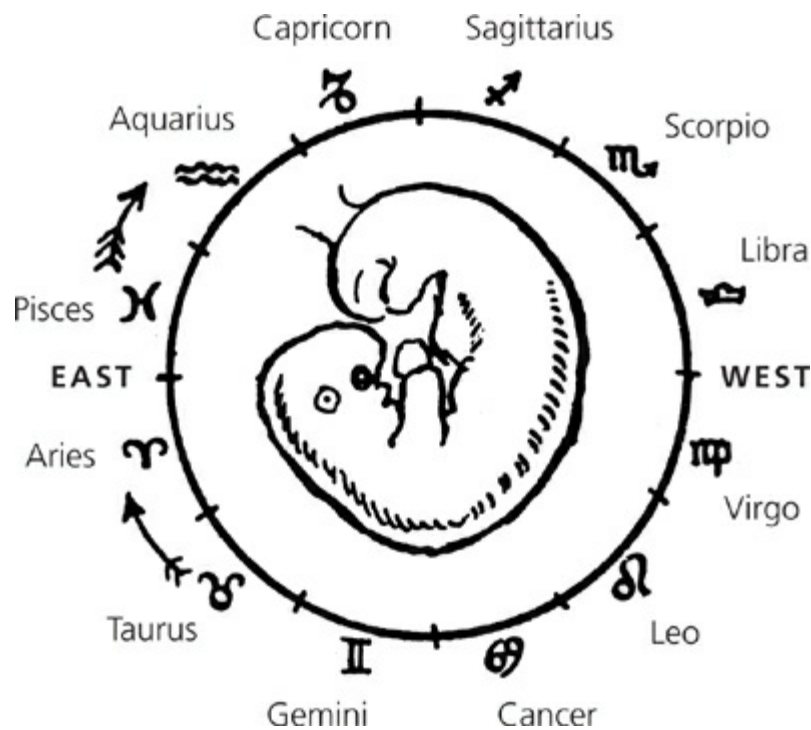


Chart of humoral pathology, or the four temperaments

In India the three pronounced seasons were the model. Doesn't the human being also experience conditions of heat (*pitta*) similar to the hot and dusty pre-monsoon season? And doesn't he also experience clammy, slimy, and contagious conditions (*kapha*) similar to the monsoon, or cool, windy (*vaya/vata*) conditions that one experiences in late autumn (Storl 2004b: 30)?

Some indigenous people, including pre-Christian Europeans, imagined the body as a house: the warm hearth in the middle of the house was the heart; the stall, which was under the same roof with all the animals, was the lower body. In this case, sickness was lack of cleanliness, a lack of fodder or wood, or an unwelcome visitor (spirits, demons).

In the Middle Ages and especially in the Renaissance, the human body was seen as enmeshed in a cosmic-astrological-energetic reciprocal field. It was seen as a microcosmic replica of the entire cosmos. The entire zodiac was mirrored in the body, from the Aries-head to the Pisces-feet. The planets ruled over the organs and well-being; planetary energies coursed throughout the entire body. The doctor had to be an astrologist, had to know which planets correspond to which organs, which planets are manifested in the healing herbs and how they affect each other.



The human embryo embedded in the zodiac

In traditional black Africa, the individual human being is seen in context of the social network. Sickness is not reduced to the individual. Such dynamics as tensions within the kin group or the neighborhood, breaking taboos, and insulting the ancestors are what cause sickness. Envy, hate, bad thoughts, and negative feelings disturb the communal harmony and are considered to be witchcraft. The diagnosis of a sickness means finding the cause of the disturbance. Disease comes not from organic dysfunctions or contagious bacteria, but from the realm of human communication. The sick person's social network, the entire village, is involved in the healing ritual.

An entire book could be filled with examples of other healing systems. But enough! What is interesting here is the fact that every healing system, every mental model, has its validity and record of successful healings. For that reason in this book we will not only rely on orthodox biomedical research and constructions, but will also consider ethnomedical and ethnobotanical sources.

Spiritual Guidance Is Not Always Pleasant

This book is not the result of idle intellectual curiosity. Rather, it has resulted from my attempt to deal with my own dire health situation after contracting Lyme disease. It is a personal story of the long, arduous path I followed searching for the right medicine and the right cure to alleviate my own condition. What I had learned from different people and cultures, as an anthropologist, was beneficial, along with information I gathered from the age-old European heritage of healing plant lore.

From the Cheyenne I learned to trust my intuition. I learned that we know our own bodies better than our precocious intellect would like to admit. Our mind is able to go into our body and sound it out better than complicated computer scans and ultrasound

diagnosis can. Even though it is difficult for the superficial, common intellect to understand, our soul knows what is bothering us and what is good for us. So I strived to guide my consciousness inward as I also rationally observed the outward bodily symptoms. The Indians had taught me to observe my dreams. American Indians are convinced that many visions, dreams, and healing inspirations, along with diseases, are sent from our fellow creatures, our “relatives,” the animals, rocks, clouds, mountains, and plants. Native Americans believe also that our forefathers mentally send us the right intuitions. I am thankful to my forefathers for passing on a link to the healing plant, teasel. They were weavers and used the plant for hundreds of years in various ways related to cloth making.

In short: Teasel root tincture or tea, taken for a few weeks, in addition to hot baths every day, or every other day (sauna, thermal baths, sunbathing), is a very good cure for Lyme disease. (For details, see [Chapter Eight](#).)

I had written an article about the results of my studies concerning Lyme disease and was bombarded with e-mails for years from people asking for guidelines on treating the disease. Most of them had run the gauntlet of successive antibiotic treatments and were desperate. Some were pitifully incapacitated. I finally decided to write a book about it, to make my research public. A cellular biologist from the Wetterau region in western Germany, wrote me that he had suffered from Lyme disease. Chronic exhaustion, muscle pain, numb limbs, and psychological dysfunctions such as memory lapses had tormented him. Then he tried the teasel cure and got well. “You have made a medical name for yourself with this cure,” he wrote, and offered to lend his research on Lyme disease for my book. Soon I received a thick folder in the mail that contained the most recent medical research and technical literature on the subject. It was replete with jargon and technical terms, mostly in the form of abbreviations and key words familiar only to insiders. I was baffled by such concepts as lipopolysaccharide (LPS), Western blot (WB), cytokines, human granulocytic ehrlichiosis, and endless abbreviations such as ESR (erythrocyten-sedimentations-rate), EMC (*erythema migrans chronica*), ELISA (not a girl’s name, but enzyme-linked immunosorbent assay!), JHR (Jarisch-Herxheimer reaction), and IgM and IgG (specific immunoglobolins, or antibodies) that were not further explained. Since I had my own view on the subject, I didn’t feel it was really necessary to cut through this jungle of verbosity. Besides, winter was coming. It was high time to prepare the garden beds, turn the compost, and cut the rest of that year’s wood in the forest. It is my habit to do this kind of physical work in the mornings and write in the afternoons. I put the folder in a place where it could easily be ignored.

Before I sat down to start the book, my daughter asked if I would like to go out riding. It was a sunny day and seemed like a good idea before sitting down for hours at the computer. We saddled up and rode off over the pastures and through the woods with the dogs panting happily alongside. Soon the leisurely ride turned into a race. Who will reach the big fir tree first? I usually lose, but this time it actually looked like I could win. Suddenly my horse made a ninety-degree turn at full gallop! The saddle slid and I swayed out just enough to crash into the tree trunk. It felt like a mountain troll had clubbed me. It knocked me off my horse and when I started to remount, I noticed

something wrong with my wrist. It started to swell and soon I realized that it was broken. The Indians that I knew in Montana would have asked themselves what kind of spirit had gotten into the horse. An old Northern German farmer, Arthur Hermes, who taught me a lot about the gods and spirits in nature, would probably have said that this blow came out of “another dimension” and that it had to do with “spiritual guidance.” To illustrate this, he would have told the story about skiing near his mountain farmstead in the Black Forest, when he fell and broke his leg. He couldn’t understand having fallen because he was a good skier and was always very careful. When he got home, there was a letter of recruitment in his mail box. He was being called into the military on the eastern front where they needed men who were experienced with horses. He was already fifty-five years old, but the war was grim and even the elderly were recruited. By the time his leg was healed, the war was over. “That was spiritual guidance. I probably would not have come home alive. The gods had other plans for me!” he would have concluded.

For me, chopping wood, garden work, and pitching horse manure were now out of the question. I could forget typing on the computer, too. I couldn’t even open a jar, peel an orange, put on my shoes, or button my coat. I basically couldn’t do anything except eat, sleep, and ... read. Now I had time to read, lots of time! So I dug out the folder from my scientist acquaintance and read until my head nearly burst.

It slowly dawned on me that I couldn’t really have written this book without such serious research. It surprised me how many contradictions and unfounded claims were behind all the facts and figures, research reports, and complicated formulations. Behind the façade of sophisticated scientific jargon, statistics, and numbers was perplexity and confusion, as well as personal bias on the part of the researchers. The statistics in the reports were often contradictory. To what degree are ticks infested with *borrelia*? Each expert gives a different estimate. How quickly do spirochetes spread in the body? Does it take weeks, as some experts claim, or only a few hours? Is it a light infection, which can be cured by three weeks on antibiotics? Is it perhaps even a trendy disease, which is too often diagnosed? Or are we talking about a worldwide epidemic that hides behind constantly changing symptoms? Some experts claim that the success of established medical cures is ninety percent. Others report only twenty-five to forty-five percent, and others say it is incurable. There was controversy about the value of blood tests (serum diagnosis), and it seemed evident that these tests can barely guarantee any sure statements. Do only ticks carry the spirochetes, or perhaps also horseflies, mosquitoes, mites, and other arthropods? Perhaps the infection is even passed on by saliva and other bodily fluids, through sperm or mother’s milk—or through blood transfusions in the hospital? No one is really sure. How many new infections are there? Official statistics waver between 18,000 and 1,800,000 a year. Is it a new disease, or has it always existed? Why was Lyme disease not a problem back in 1907 when Dr. Borrel, MD discovered the screw-shaped bacteria? How many different strains of *borrelia* are there? Do they all cause the same symptoms? And is it true that mainly *Borrelia burgdorferi* are present in America, found in ticks and in patients, while in Europe other kinds are found (*B. afzelii*, *B. ganii*, *B. lusitaniae*, *B. valaisiana*)? How is that possible? So many

questions and few decisive answers! The more I read, the more fascinating the subject became.

Perhaps it was indeed spiritual guidance that had put me out of commission so that I would undertake an even more serious study of the matter. Spiritual guidance is not always pleasant, as acquaintances from the New Age scene like to claim. It can be quite unpleasant! And sometimes it sends a mountain troll with a big club or has a sprite jump into the head of a horse.

The radius and ulna of the wrist healed quickly. I felt it and recognized that it was a clean break without complications, such as damage to the tendons. I knew I didn't need to go to the doctor. I could spare myself x-rays, a cast, and pain pills. Instead, I made a poultice of freshly grated comfrey root, to stimulate the granulation process² and calcium building and also ease the pain. I drank a lot of horsetail tea, rich in silicic acid to support rebuilding of the bone tissue. I also bathed my wrist daily in a hot horsetail decoction, to which I added yarrow, which is slightly antiseptic and a tissue tonus. Instead of a cast, my wife made a splint of supple willow twigs that I could easily take off in order to care for the wrist each day. Had I worn a cast, healing would have taken much longer. I was able to type again after three and a half weeks.

CHAPTER ONE

Encountering the Demon

Don't let it get to the point that you have accepted the diagnosis, because then your fate is sealed.

—CLEMENS KUBY (2005)

We know that Lyme borrelia can withstand antibiotics. To say someone is healed because he took a certain amount of antibiotics is nonsense.

—WILLY BURGDORFER,

discoverer of the borrelia spirochete (2001)

There was not really a good spirit in the sweat lodge in which I participated about ten years ago. To a degree it was my fault: I was overworked and hadn't had enough sleep. I was irritated sitting there in the "womb of Mother Earth," tightly squeezed between naked longhaired freaks on some "Indian trip." At least that was how I experienced the other sweat-lodge participants at the time because I was already in a bad mood. The small lodge was made of interwoven willow branches covered by blankets; the red hot stones glowing in the middle of the hut gave off an oppressive heat and an unpleasant cold draft coming through a small gap in the covering chilled my back. The invocation of the sweat-lodge master, calling upon the godly eagle, the bison, and other native power animals seemed terribly out of place here. We were in the Neckar Valley in Germany, near Heidelberg, located somewhere between chemically saturated vineyards and barren fields. Shouldn't one call upon animal spirits and familiars of this area, the fox and stag perhaps, and not drift off into abstract or far distant realms? The purpose, after all, was to commune with the earth here, the animals, plants, and spirit beings of where we were. When the sweat-lodge master invoked the coyote, the trickster, Shawnodeese, who rules the South and brings warm rain, he turned to me and said, "Wolf, surely you know the trickster, the godly joker, from your time in the Rocky Mountains." My ego was flattered; I turned on the gravely profound voice of the wise man and answered, "Yes, of course, I know Shawnodeese quite well."

At dawn, when the sweat lodge ceremony was over, I wallowed in the dew of the grass to cool off. A tick bit me below my belly but I didn't notice it until two days later. It had caught me in a weak phase when my immune system was down. Maybe it was actually Shawnodeese, paying me back for my ego-trip. One should not tempt the gods and play around with sacred things—my friend, the Cheyenne medicine man, Bill Tall Bull, had told me that often enough.

Soon after, I noticed the red ring, the so-called bull's eye rash (*Erythema migrans*), spreading from the site of the tick bite. I didn't feel well, had no energy, was irritable, had headaches, and couldn't sleep well. My vision became blurred and the lymph

channels in the groin began to swell. A doctor friend, who is otherwise very enthusiastic about herbal medicine, diagnosed Lyme disease and had a serious word with me: “With something like this, herbs can’t help. Only a massive dose of antibiotics can be of help here!”

In drastic terms he elucidated the dramatic course of this tick-borne disease caused by the bacteria *Borrelia burgdorferi*: if one doesn’t start immediately with an antibiotic, the second stage of the disease will be accompanied by paralysis, arthritis, itinerant joint infections, heart damage, and finally partial nerve dysfunctions and meningitis. In the third stage one ends up in a wheelchair because the joints fail, and ultimately the coordination can be impaired (ataxy), brain nerves fail, and one can even become psychotic. The bacteria are related to the syphilis spirochetes. And as with syphilis, the infection is relapsing, which means it comes in phases: the symptoms recede for a time and the patient feels well on the way to recovery and then they reappear even more violently.

What a diagnosis! I usually cure whatever makes me ill with herbal teas, herbal poultices, a hot water bottle, hot stones applied to the ailing body parts, and plenty of sleep. But what was I to do in this case? I have a family to care for! Many years ago in India, I had suffered a serious superinfection³ due to an antibiotic, which took me years to overcome. I was afraid that this situation might repeat itself, so antibiotics were nearly out of question for me. Besides that, I know that antibiotics must be used very carefully since they present a major interference in the body’s endogenous immune system. They destroy much of the symbiotic intestinal flora, which are an essential part of the body’s disease resistance; they make the body more susceptible to mycosis, such as *Candida albicans* and other fungal infections; they can trigger allergic reactions, even the rare, life-endangering anaphylactic shock. The natural, inner ecosystem, which protects the organism against infections, suffers a major setback and takes a very long time to rebuild.

I was undecided and wondered if I was merely being “difficult.” Was I paranoid for not wanting to take an antibiotic? Was it really the case that with this disease there is no herb that is capable of healing it? I hesitated and at the same time I had the feeling that time was running out. I feared that with each passing day the spirochetes were multiplying and would eventually infiltrate joints, brain, and other vital organs. I read everything I could on the subject. Eventually I stumbled upon a statistic in a medical journal, *Consilium Cedip Practicum: Handbuch für Diagnose und Therapie* (1995), which stated that 23.8 percent of the tested forest workers in Germany show an antibody-response to borrelia without even knowing that they were ever infected. Somewhere in some medical journal, I can’t recall which one it was, I came across the statement that only half of the patients diagnosed with Lyme disease actually suffered from the symptoms. I became hopeful. If the immune system actually has the ability to produce antibodies against the spirochetes, then it would make sense to support the immune response in every possible way. Since antibiotics can suppress the immune system, slowing down the body’s own resistance, they seemed—so I concluded—not necessarily the right therapy.

The End of the Age of Antibiotics

I am very well aware that antibiotics, as well as cortisone and other steroids, are sacred cows of modern medicine. They are not to be questioned. Even critics must admit that this most powerful weapon of modern medicine has saved millions of lives and that they are necessary in emergencies. In fact, my father's life was saved when penicillin was tested on him while he was in a prisoner of war camp in Egypt. He would have died of dysentery without it.

But nowadays we may legitimately question whether the costs are higher than the benefits. Antibiotic medical therapy began with huge promise. In 1928, in the laboratory of Alexander Fleming, a fungal spore of the species *Penicillium* fell accidentally into a petri dish containing a staphylococci culture. The great bacteriologist noticed that a circle, free of bacteria, formed around the spore. He was electrified by the discovery that the toxins excreted by penicillin can stop the growth of bacteria. Shortly after that, in 1935, a pathologist named Gerhard Domagk discovered the antibacterial effect of sulfonamides, which could be used against gram-positive and gram-negative bacteria,⁴ as well as against protozoan infections and chlamydia.

Toward the end of the Second World War the importance of antibiotics was fully realized. The agonies that had always tormented soldiers—tetanus, gonorrhea, and other venereal diseases—seemed to be banned forever. Euphoria spread. The Western Allies had won against the Nazis and now they would win once and for all the war against bacteria. Leading scientists actually announced that this would mean the end of all disease. Surgeon General William Stewart declared at the end of the 1960s, in front of the U.S. Congress, that “it was time to close the book on infectious diseases. Smallpox and polio are eradicated, malaria and tuberculosis are on the way out” (Buhner 2002:117). I remember well how a teacher in primary school told us children that by the turn of the millennium in the year 2000 there would be no more disease, thanks to penicillin, and no more want of energy because nuclear power would provide an endless source of clean and safe energy.

No one questioned the dogma that bacteria are the cause of disease and infections. The official paradigm of that time was pure Spenserian Darwinism. All nature was subject to the law of the survival of the fittest. Fierce competition dominated all relations: human organisms against bacteria, insects against plants, useful bugs against harmful pests, beneficial crop plants against weeds. It was a Manichaeistic,⁵ dualistic fight of good against evil. Bacteria were definitely on the side of evil, as were poisonous snakes, wolves, or the enemies of democracy and progress. In the ever more secular Western world, these miniscule living beings, invisible to human eyes, became ever more the veritable devil and his host of demon spirits. It is inconceivable that anyone on the side of the good would even consider making compromises with the evil hosts!



Bacteria as little devils, Victorian, London, 1858

This kind of thinking prevailed in the use of agricultural pesticides and herbicides: DDT, malathion, lindane, and other chemicals protected the useful plants and other poisons destroyed the nasty weeds. And the paradigm found its way into politics: in the First World War, both sides used poisonous gases against the human parasites in the other trenches; in the Second World War, saturation bombing of civilians, the concentration camps, and finally the atomic bomb served the purpose of routing out evil. During the cold war, weapons were developed to rout the germs of Bolshevism, or, depending on the point of view, the germs of capitalism. Today unpredictable treacherous, underhanded, and disguised terrorists and fundamentalist fanatics, much like the bacteria in our body, launch sneak attacks on the social body.

Corresponding to this kind of thinking, our medical paradigm uses an almost exclusively military language. Syphilis was targeted with “silver bullets,” as if it were the mythical werewolf. Like a foreign army, germs invade the organism, the body is a battlefield, killer cells attack foreign cells, phagocytes clean up after successful defense, and the doctors with their arsenal of shots are on the forefront of battle. There are counteroffensives and victories in the war against disease, in which pathogenic agents are radiated, bombed, and destroyed; defensive systems are strengthened and, with enough financial support, one day infectious diseases will be exterminated.

We forget that the alleged enemies, the microorganisms, are the largest group of living beings on earth—and the oldest! They have been on this planet for at least 3.5 billion years. They are extraordinarily adaptable and in no way as primitive as commonly believed. They maintain fertility in the soil and without them there would be no life on the planet. They are the prototype of all multicellular organisms. They are also our “ancestors.” Chloroplasts, the small green particles in plant cells, which take up the energy the sun’s light provides, were probably also once free living microorganisms.

Also, the mitochondria inhabit animal and plant cells and are responsible for oxygen exchange, and the plasmids, involved in transmitting genetic code, originated as bacteria that over time became integrated into cells (Dixon 1998:27).

Everywhere on our planet bacteria and other microorganisms digest the continuously accumulating mass of bio-matter—estimated at up to 400 trillion tons each year—and re-release the energy obtained in the process. Without cellulose-digesting bacteria in their gut, buffalo, sheep, and cattle would not be able to digest leaves and grass. Microbes seize upon everything that is beginning to die or lose its vitality: fallen leaves, litter, dung, cadavers, diseased tissue, decaying matter. Breaking down and transforming remnants of life might be their most important function in the whole of nature—they implement the necessary decomposing process (Storl 2000:249). Human beings are no exception to this process; we are also part of the natural cycle of life and death, composition and decomposition. If we lose our will and strength to live through difficult circumstances in our lives (old age, malnutrition, environmental poison, radiation, medicinal side effects, extreme stress, even the loss of the joy or meaning in life), then the ground is laid for the decomposing bacteria, which come and help us exit our incarnation.

Trillions of bacteria—more than the number of human beings who have ever been or will ever be on earth—live within our body. They number ten microorganisms to each body cell (Blech 2000:23). Since most of them are harmless, helpful inhabitants, we are not aware of them. They account for up to two pounds of our bodily weight. They happily populate the skin, mouth, throat, digestive tract, and vagina, where they build a protective layer that prevents penetration by more offensive pathological germs.

In the nineteenth century, microbe-hunting scientists using microscopes discovered that most bacteria in our bodies are found in the large intestine. “The Grim Reaper hides in the intestines!” was a familiar dictum of those days. Frequently doctors diagnosed intestinal toxemia in their patients; to get rid of these dangerous guests, colon cleansing, special diets, and enemas were prescribed as therapies. But that was long ago. Since then scientists have come to realize that without these billions of “guests at the dinner table,” these 500 species of bacteria inhabiting our intestines, we couldn’t survive. The intestinal lining, some 200 square yards of contact surface, is the largest organ of our immune system. In the folds of the intestinal mucus membranes the immune cells, B-lymphocytes and T-lymphocytes,⁶ make acquaintance with all sorts of different bacteria. They absorb them, get to know them, memorize their characteristics, and excrete them. In this way, the tiny guests stimulate and train our immune system. Natural antibodies develop and are released into the blood and lymph channels for the protection of the body (Blech 2000:37). The intestinal flora also helps us digest our food and synthesizes important substances for our organism: vitamin K (which helps coagulate the blood when we are injured), the B vitamins (B₂, riboflavin; B₆, pyridoxine; and B₁₂, cobalamine), biotin, folic acid, pantothenic acid, and others. In the meantime researchers also have come to know that a good intestinal environment, supported by lactic-acid-building lactobacilliae and bifida, protects us from microorganisms that

would make us sick and cause abnormal cell growth. There are also large amounts of differentiated microbial flora in the vagina. A baby born by natural birth takes up the beneficial bacteria from the mother as it passes through the vagina. These bacteria then multiply quickly. With Caesarean births, there is a risk that pathogenic bacteria populate the intestinal tract of the child (Cannon 1994:169). The child's intestinal flora take up immunoglobulin A (IgA) from the mother's milk and microorganisms that live in the area around the nipples. In that way, the infant's immune system develops.

Bacteria have been our companions for hundreds of millions of years. During that long time of co-evolution, a symbiosis has been established that is of vital importance for both sides. Most bacteria in our bodies are not harmful; they are not agents of illness, but of good health. A healthy intestinal flora can be diminished or weakened by heavy metals, environmental poisons, chemotherapy, cortisone, vaccinations, bad nutrition or bad eating habits (too much sugar and protein, junk food), emotional factors (stress, depression, suppressed anger)—and antibiotics.

Antibiotics are, just as the name indicates, against (*anti*) life (*bios*). To use them is a declaration of war on the world of microorganisms; they were developed to destroy these microscopic enemies. But since we share life with our tiny co-evolutionary species, we end up damaging ourselves with such attacks. The harm that is done, among others, includes the following:

- Repeated antibiotic treatments disturb the highly sensitive inner ecology in the human organism and encourage diseases, which can eventually end up as multiple sclerosis, diabetes, or cancer (McTaggart 2000:217).
- Allergic reactions, from skin rashes all the way to deadly anaphylactic shock, are possible.
- The ecosystem of the intestinal flora is massively damaged, especially when broad-spectrum antibiotics are used. They destroy the beneficial bacteria that usually dominate in healthy intestines, thus making way for dangerous bacteria that also live in the intestines but were kept in check by the beneficial bacteria. Colitis, irritable bowel syndrome (IBS, *colon irritabile*), Crohn's disease, and other intestinal sicknesses often result.
- Superinfections can occur. This means that most of the one-celled microorganisms are eliminated, opening the range for a more aggressive bacteria or protozoa such as *Clostridium difficile*. Many urinary infections, which are difficult to cure, are caused this way.
- In the last fifty years, since antibiotics (and mass vaccinations) were first introduced, we have seen a dramatic increase in autoimmune diseases and allergies. There could well be a connection.
- Many antibiotics such as penicillin are based on toxins, which the fungi excrete to defend themselves against bacteria. Antibiotics create an environment in the body that favors fungal growth and encourages fungal infections, such as *Candida albicans*.
- After antibiotic treatment one becomes more vulnerable to other infections because

of the floral vacancy, which can be occupied by other germs (Cannon 1994:156). After antibiotic treatment, one is also less protected against viruses due to the overall weakening effect.

From the very beginning, this miracle cure was applied too often and too carelessly. In our small midwestern town, no sooner did a patient walk in the door of the practicing doctor than she or he got zapped with a penicillin shot. The new medicinal discovery was regarded quickly as a cure-all for all kinds of sickness—sniffles, torn muscles, headache, stomach ache, fungal infections, and viral infections. It was good for everything! And it wasn't only like that in Spencer, Ohio. Antibiotics were used practically everywhere in the 1950s and 1960s without restraint. The treatment was used in cases where the problems would most likely have disappeared by themselves or where a simple medication and rest would probably have been better. It is estimated that forty to seventy percent of the prescriptions during those times were unnecessary. It was only much later that they were prescribed more carefully.

Today millions of tons of mostly synthetic antibiotics are produced (Cannon 1994:15). Most of these end up in feedlots and farms of mass animal production. Cattle and pigs get thirty times as much antibiotic treatment as human beings do. This not only keeps them alive until they are ready for slaughter, but also helps increase the rate in weight gain in meat animals. Tetracycline is considered to be an effective growth accelerator. But since in life's network all is interlinked, it is no wonder that the problems that develop also affect humans. In the United States alone, 6.5 million cases of food poisoning are related to antibiotic-resistant salmonella.

The heavy use of antibiotics is especially profitable for industry. Small medicine producers have become multinational pharmaceutical giants. It seems that the health of people or even animals are a secondary concern. Approximately the same amount of money is spent in the Western world on medicines as on national defense—hundreds of billions of dollars. Both threats of war and health issues are objects of fear, and with fear it is easy to manipulate and control people. Today Americans spend more money for medication than they do for homes and food together. One wonders if anyone has become any healthier for it.

At first no one believed that microorganisms could defend themselves or that they could develop new resistant forms. Scientists saw no danger because, according to standard Darwinistic evolutionary theory, genetic changes seldom occur. Chance mutations among microorganisms were figured to happen about one to a billion per bacterial generation. Most bacteria have a very fast generational cycle: one bacterium has about 17,000 offspring per day. These also have 17,000 offspring, and so on. (*Borrelia*, however, reproduce much more slowly by comparison.) Even this rapid generational changeover wasn't seen as dangerous because nearly all of the genetic mutations are abnormal, bring no survival benefits, and end with the death of the mutant.

In reality, though, something entirely different was happening. It turned out that these microscopic beings are capable of adapting extremely quickly to a changing

environment. Because antibiotics create severe survival stress, natural selection accelerates. Of the billions of bacterial offspring, those that developed antibiotic resistance survive. Already in the first year after the commercial use of penicillin (1945), fourteen percent of *Staphylococcus aureus* bacteria were resistant. About fifty years later the first staphylococcus strain appeared that proved resistant to every antibiotic that exists. In the United States alone, three million patients per year come into hospitals with infections that cannot be brought under control by antibiotics. Two million Americans get infections that are very difficult to cure, and despite the development of 14,000 germ-killing medicines, 100,000 to 150,000 people die yearly due to such infections (Garrett 2000:264). In Germany between 450,000 and 900,000 people a year contract diseases from their stay in the hospital (Blech 2000:186).

Infectious diseases are on the offensive. One out of seven cases of tuberculosis doesn't respond to antibiotics. A new kind of *Pneumococcus* bacterium from South Africa, which causes not only pneumonia but also tetanus, middle ear infection, and meningitis, is resistant to antibiotic treatment. The World Health Organization reports eight million new cases of tuberculosis worldwide each year; three million die of this once allegedly conquered disease annually. Gonorrhea, syphilis, meningitis, pneumonia, and other infectious diseases are on the increase.

We have lost the war against the microbes. The bitter battle that doctors are fighting against germs endangers the harmless bacteria and makes us more susceptible to disease (Cannon 1994:125). The new-generation germs are more dangerous than those from the pre-antibiotic times because supergerms have been bred. Formerly harmless cohabitants are suddenly virulent killer germs, such as *Escherichia coli*, part of the normal intestinal flora, which has mutated to *E. coli* 0157:H7. *Candida* is also usually harmless and only becomes a problem when the immune system is weakened and the natural ecological balance in the body has been disturbed.

The ideal breeding grounds for highly infective germs are those places where antibiotics meet up with crowded populations, such as chicken farms, cattle farms, fish farms, nursing homes, kindergartens, prisons, slums, or animal shelters. The mutation rate is especially high in such places. In the United States milk cows get vaccinated with genetically mutated growth hormones (bovine growth hormone, or BGH) that increase milk production enormously. However these vaccinations cause frequent udder infections, which are then treated with antibiotics, causing more mutations of the bacteria. The antibiotic-laced waste and water runoff from such breeding places gets into the ground water, rivers, and lakes. Since most antibiotics only slowly break down, if at all, they also impair other microbe life in their course.

The Morphogenetic Field of Bacteria

All of this is very bad news. How could things get this far? How is it possible for these tiny, apparently simple creatures to come up with such a sophisticated response? Slowly but surely scientists are realizing that these minuscule living beings, though they have

no obvious brain or nervous system, are, after all, clever survivors and they react highly intelligently to antibiotics. They are also able to pass on newly acquired information to other microorganisms. A microbiologist cited in *Newsweek* a few years ago even went as far as to make the unscientific comment that these “germs are clever little devils.”

How do the bacteria manage to become immune to antibiotics? It turns out that if their environment becomes contaminated, they do not simply wait for a chance mutation. Instead, they react with deliberate mutations, allowing them to adapt to the prevailing conditions (Sheldrake 1993:166). Maybe Lamarck⁷ was right! American scientists were puzzled when they noticed that bacteria often mutated even before they came into contact with a new antibiotic, as if they had sensed or anticipated it (Buhner 2002:123). In order to deal with this puzzling fact, the English plant physiologist Rupert Sheldrake proposes that microbes cannot be understood alone as single organisms, but as part of the greater morphogenetic field of the species.⁸

In the presence of an antibiotic agent, the rate of information exchange among microbes accelerates greatly. Resistant bacteria pass on new genetic configurations quickly, not only through reproduction with their own kind, but by transferring genetic information to other kinds of bacteria. They do this by separating out fragments of nucleic acid (transposons, or “jumping genes”) or plasmids, which reproduce independently of the cell’s chromosomes. These “stray genes” are then picked up by other species of bacteria. Highly developed organisms cannot exchange genetic information in this way unless forced by complicated gene manipulation. Vancomycin⁹ - resistant *enterococci* bacteria have passed on their antibiotic resistance to *streptococci* and *staphylococci* in this way (Garrett 2000:266). Viruses that invade bacterial cells can also pass on new generic information (such as antibiotic resistance) to their bacterial hosts. Some bacterial species have modified the structure of their outer membranes, making them less vulnerable. Others have developed pumping mechanisms to rid themselves of the poison faster. Some manage to chemically neutralize antibiotics or even to use them as nourishment.



“Disease as God’s punishment,” wooden carving from the Military Journal of Miraculous Medicine, G. v. Gerdoff, 1530

In attributing intelligence to these one-celled beings, we find ourselves dangerously close to old, pre-scientific, animistic imaginations of demons of illness or angels of retribution. The sixteenth-century physician and alchemist Paracelsus, for example, saw diseases as spiritual entities (Latin *ens*, *entis* = being), as ethereal beings, which came from the stars, from nature, spirit, or even God. Contrary to the current belief that eventually scientists will be able to eradicate disease, this view postulates that disease cannot be killed, destroyed, or brought to extinction. According to this vision, the host of microorganisms, which we see as bacteria, are an expression of non-physical entities acting upon a physical field.

For Rudolf Steiner, founder of the philosophy of anthroposophy, the so-called germs, as well as the processes of disease with which they are associated, cannot be understood without taking the spiritual background and psyche (or soul) into consideration. In his view, humans are fully incarnated as microcosms. Bacteria are, on the contrary, only partially incarnated, their behavior being guided by a highly intelligent, spiritual “group soul,” “over-soul,” or “group-ego” (*gruppen-ich*). Unlike humans, the bodies of the bacterial entities are not bundled in a single, self-contained organism consisting of specialized organs. Instead, the countless single cells of each bacterial species live amorphically, unspecialized and unbound. Their “bodies” can flow and spread over entire landscapes, over continents or even over the whole earth. But these cells are still guided by an invisible, characteristic intelligence, a group-ego, such as perhaps a “*Staphylococcus-aureus*-entity” or a “*Borreliose-burgdorferi*-entity.” Like a wafting cloud or even more like mist or miasma, they spread their formless bodies and do their destructive work only where they find the right conditions existing for them. When

germs appear in masses in a part of the body, it is only natural that infections result, just as any foreign intrusion in the body causes a reaction (Steiner 1961:329). But these infections are not the actual disease, they are just the “smoke indicating there is a fire” (Paracelsus 1942:78); they are an indication that something isn’t right in the substrata, in the physical, etheric, or mental terrain. In traditional Christian terms, these intelligent, actually even wise, bacterial entities could be interpreted as avenging angels of God or, as the case may be, demons or fallen angels, who are sent when human beings are not living in harmony with divine law.

These angels, demons, or disease spirits can be perceived by clairvoyants or by people in unusual states of consciousness—in dreams, in trance states, during psychedelic consciousness alteration, or with the help of shamanistic techniques. Shamans are specialists in such visualizations, and—as an anthropologist—I consider it to be an ethnocentric prejudice to question the validity of their visions. When composer Richard Wagner was walking through Bohemia on his way from Dresden to Vienna, he perceived the spirit of the cholera epidemic that was raging at the time. It appeared in the form of a woman at night in the inn where he lodged. He overcame his fear and talked to the spirit. The next morning he heard that another guest had died of cholera in the previous night in the same bed. He himself was not infected. The ethnographic reports of shamans confirm that conscious perception of and fearlessness in dealing with these supernatural beings can often spare us suffering. It is a matter of dealing with them on the ethereal plane before they manifest on the physical plane.

The often very frightening appearance of these astral-etheric beings is not the result of chance or of subjective fantasy. They are real perceptions of transcendent matters. With our five senses and technical instruments, which implement these sensual perceptions, a person perceives mainly the material aspects, the so-called empirical world. But with the inner senses—in lucid dreams, in visions and shamanistic trips—one perceives the immaterial side of being, the astral world, the world of the soul. It is here where group souls and archetypes of plants, animals, and microbes are found. All traditional cultures, worldwide, recognize these beings, which populate the inner side of perception. Fairy tales and myths tell about them: the false faces of the Iroquois, Tibetan demon masks, African voodoo masks, and the “Perchten” of the Alpine countries make visible what inner vision reveals. Traditional healers, medicine men and women, and shamans have developed techniques, reaching back to the Old Stone Age, of dealing with them. They can talk to them—as Richard Wagner did—can bargain with them and wrest afflicted persons out of their grip. The conjuring and smudging with sacred herbs, the rituals and prayers are meant for them and not for the anthropologist, the picture-taking tourist, or the curious journalist. I refer, of course, to the veritable shaman and not the “showmen” who frequent New Age seminars and put on a show for gullible observers. The crux of shamanistic healing is precisely this wrestling with the spirit of the disease. Of course, shamanic healers observe very precisely the physical symptoms of the disease, but they are of secondary importance.

Robert Denton, my anthropology professor at Ohio State University many years ago, found this disturbing. As we were walking over the campus green discussing shamanistic

clairvoyance, he told me:

The problem with this is that such clairvoyance implies elitist capabilities, which not everyone has. Besides, such statements cannot be scientifically proven. Basically it is not democratic. If a statement cannot be validated or, as the philosopher Karl Popper formulated it, cannot be falsified, then how can one distinguish the real visionary from the charlatan?

Professor Denton was right, of course. Nonetheless, there are people who see things that others do not see. That is, unless the latter are initiated through an existential crisis, a severe trauma, or a life-threatening disease—sometimes even a bout of Lyme disease—that shakes them up, rips them out of daily routine, sharpens their senses, and shocks them into a state of greater sensitivity. Of course, then there are also the insane, who are confused by the world of the invisible and fall into chaos and confusion. By comparison, socially sanctioned clairvoyant healers and shamans help their fellow human beings become healthy or find psychological stability.

Lyme disease leaves a person more sensitive, even after being healed. He or she becomes a so-called highly sensitive person, or HSP (Aron 1999). A more highly developed intuition and a more sensitive reaction to the environment are claimed to be part of a post-Lyme syndrome. It is said that HSPs have a low tolerance to electrosmog, as given off by microwaves or cellular and wireless telephones. Even low-frequency electromagnetic field radiation such as from televisions, computers, and electrical outlets may bother them. They tend to cherish quiet meditation and a natural environment. Who knows? Maybe that is what the borrelia-entity is supposed to do. Maybe it is a way of Gaia (Mother Earth) to help people of today become more sensitive and responsive to the real world of nature. This certainly is not a scientific statement and I am not saying it is so. But then, who knows if it is not true?

CHAPTER TWO

An Arthropod Terrifies the World

*Nature is always right,
And erring and mistakes are always the doings of men.*

—JOHANN WOLFGANG VON GOETHE (1908)

*... and even every little bug,
every dirty little bug,
let me hold them all tightly,
let nothing escape my grip.
Let my children, all of them,
find fulfilment.*

—from the song of a Zuni rain priest (SCHWARZ 1978)

Old Lyme, located on Long Island Sound, which separates Connecticut and New York, is a typical New England town with pretty white houses and old churches from colonial times. The first Europeans settled here in 1665 and its current population is about seven thousand. The area is surrounded by bogs and forested hills, which are radiant in color during the Indian summer. Unfortunately, neither its history nor quaint beauty made it known throughout the world—only the infectious disease named for the town.

In the early summer of 1975, a mother noticed a strange epidemic of “arthritis” afflicting the small town. Twelve children had developed arthritic symptoms. How was that possible, she thought; doesn’t joint inflammation primarily affect the elderly? Moreover, arthritis is not contagious. Additionally, the symptoms appeared in early summer, and bones and joints usually hurt in the cold, moist fall season. Keen observation revealed that the disease usually began with a red, expanding spot on the skin. This spot developed around the bite of a deer tick (*Ixodes scapularis*, formerly *I. dammini*). Thus the strange disease was named after the town, and from then on it was called Lyme disease.

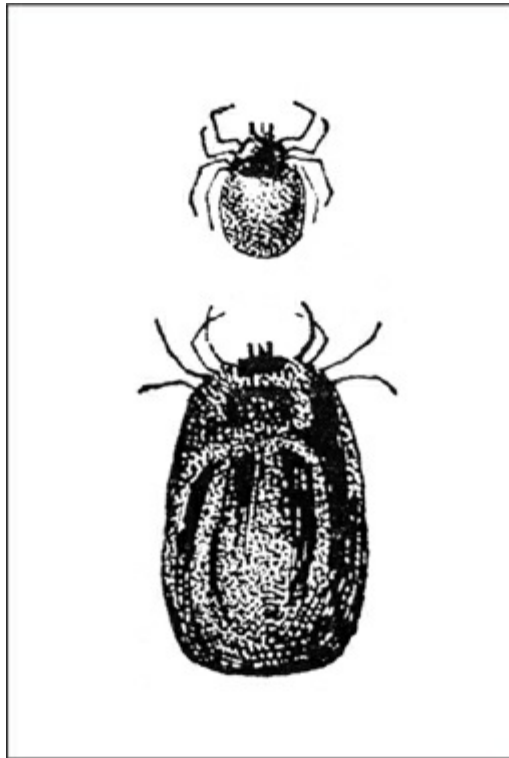
Ticks have always bitten people in the woodlands of New England, but not as much as had been observed in recent years. Their bite might be nasty but was never considered to be anything serious. One simply lit a match to the sucking tick or dabbed it with fingernail polish to get rid of it. That was common practice in those days. (Today we know that this is a rather dangerous way of dealing with attached ticks.) After the Lyme episode, however, tick bites were beginning to appear as anything but harmless. The Swiss-American bacteriologist Willy Burgdorfer, researcher at the Rocky Mountain Laboratories in Montana, took a close look at the situation. He examined the bloodsucking arachnid and found a spirochete, a screw-shaped motile bacterium of the

genus *Borrelia* in their stomachs. The newly discovered germ was called from then on by his name, *Borrelia burgdorferi*. In March 1983 he published his research in the *New England Journal of Medicine* (Benach et al. 1983:733).

The “Bad Guy”

Ticks are found throughout the world. A common Old World species is known by its scientific name *Ixodes ricinus*. (Ricin is also the Latin name for the castor-oil plant, because the seeds, the so-called castor beans, resemble in form and color the round, fully inflated tick.) The word “tick” (Middle English *tyke*, *tike*; German *zecke*) is derived from Old Germanic meaning “tweaker” or “tweaking insect.” In olden times, ticks were seen as part of the “vermin,” the “creepy crawly things” or “elfish worms” that were hexed upon people and their farm animals by elves, goblins, sorcerers, and witches, and which brought all kinds of ugly diseases (Storl 2005e:127). Our ancestors believed that such pests plagued not only people and animals but also trees. Wicked sorcerers were believed to go into the woods and shake ticks and vermin from the trees, in order to send them to their victims (Mannhardt 1875:14)

The tick is a 1/25- to 2/25-inch-long arachnid related to mites, spiders, daddy longlegs, pseudo-scorpions, and scorpions. Worldwide there are about 650 tick species. Once they have hatched, most ticks go through three developmental stages: larva, nymph, and adult. The tiny larvae and the mere 0.06- to 0.08 inch (1½ to 2 mm) long nymphs are six-legged; the adults have eight legs. Ticks do not like direct sunlight; they lurk in moist, shady shrubbery or grass and wait for a passing “meal” of blood. The tiny vampires do not, as is commonly believed, climb trees and then drop on their victim. They are able to climb into bushes up to a height of 1½ yards, which is the height of a potential host. There they wait patiently, sometimes for months on end, until a person or animal brushes past. Even though they are blind, they have sensitive organs of perception in their front legs, which help them register the slightest changes in their surroundings. Thus they are able to register minute trembles or vibrations made by the unwilling victim; they detect the transpiration, the sweat (lactic acid, butyric acid, ammonia), and the carbon dioxide given off by the host’s breath; they notice the change of light caused by the shadow of a nearby host, as well as temperature differences up to one hundredth of a degree. When all these factors come together, they crawl very quickly in the promising direction. They tend to be more attracted to people with acidic, sour-smelling sweat—typically, people under stress or whose diet is overly rich in animal protein or sugar. People who are relaxed and whose blood is characterized by a healthy acid-alkaline balance are less likely to be targeted.



Ticks, the transmitters of Lyme disease (Schmeil 1935)

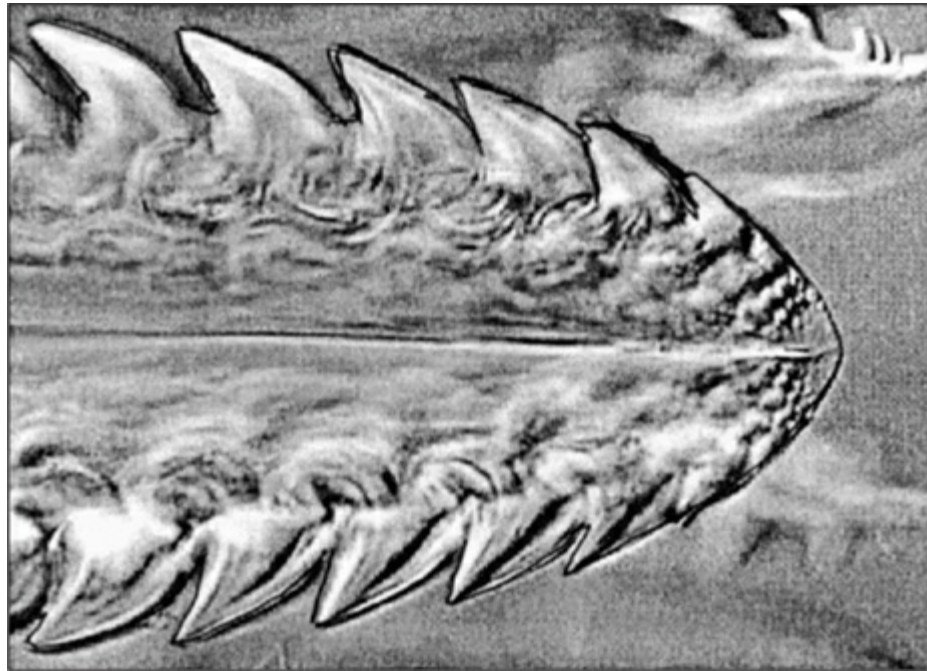
The tiny larvae, about the size of a period at the end of a sentence, live mainly on the blood of small mammals, such as mice, rats, hedgehogs, voles, and dormice. They occasionally even parasite lizards and birds. The eggs of the ticks are free of borrelia spirochetes. It is only after they have hatched and taken the blood of small animals, especially rodents, that the ticks themselves become infested. Rodents thus are a “reservoir” for these bacteria.

The spirochetes, inhabiting the gut of these small mammals, react immediately when a tick larva bites the rodent host. As the tick pierces the skin with its tubular mouthparts (proboscis), it squirts its saliva, containing numbing and histamine-inhibiting substances, into the host’s skin. This saliva is the signal for the spiral-shaped bacteria to immediately swarm out, like iron shavings to a magnet, to the place where the tick’s proboscis has penetrated the skin. Using the proboscis as a bridge, the borrelia enter the body of the tick larva or nymph, and colonize its intestines. In this manner an estimated one percent of the larvae become infested with borrelia bacteria. Nymphs are infested with the bacteria at a rate of an estimated ten percent. The adult ticks, which attach to larger animal hosts such as deer, horses, dogs, or humans, carry a heavier bacterial load. It is estimated that nearly twenty percent are infected with borrelia and up to 1.5 percent with the virus associated with Early Summer Meningoencephalitis (ESME). These statistics, however, are to be taken with a grain of salt; they are rough estimates, because the contamination varies greatly from region to region and the findings are not fully representative. According to newer studies in North America, the nymphs alone are infested from thirty to 100 percent with borrelia depending on the region (Buhner 2005:19).

The cycle from the larval stage to the sexually mature adult takes two to three years.

The adult female requires much blood so that the approximately 3,000 eggs it will lay can fully develop. The males, which die immediately after mating, take a smaller portion of blood. Once the tick alights on its host it takes its time to find a suitable place to bite. Sometimes this takes up to several hours. A homeopathic doctor friend of mine, Roland Günther, MD, believes that it isn't just chance that determines where the tick punctures the skin with its barbed proboscis; most likely it is searching for an acupuncture point. He claims one should just let it be and not begrudge it that little bit of blood in exchange for a free acupuncture treatment! His unorthodox view on this matter is in diametrical opposition to research results, which claim that the danger of contagion rises proportionally with the amount of time the little vampire sucks blood. According to U.S. studies, an infected tick poses little or no danger during the first twelve hours of sucking; after twenty-four hours, however, the probability of becoming infected with borrelia is thirty percent, and after forty-eight to seventy-two hours nearly 100 percent (Löscher et al. 2006:16).

As the warm blood of its human or animal host enters the tick, the temperature of its leathery paunch rises while the pH level of its inner environment sinks. The spirochetes living in the tick's gut respond to these stimuli immediately. These microscopic worms seem to "know" that it is now possible to colonize another organism. With the help of the genetic information provided by the plasmids in their cells, they "analyze" the incoming blood, as to whether it belongs to a mouse, a dog, a deer, a human being, or other mammal. Immediately they adjust their metabolism in order to adapt to the new host; they also change the arrangement of the outer surface proteins (OSPs) of their cell membranes in order to outsmart the host's immune system. Normally, the immune system recognizes invading bacteria by their outer surface protein antigens and sends killer T cells and antibodies to attack and eliminate them. Lyme bacteria, however, disguise and provisionally sheath themselves, as they move from their former home in the tick's gut, via the tick's salivary glands, into the new host. This process takes some time. Therefore, the assumption is correct that the longer the tick sucks blood, the greater is the chance of infection, the greater the chance of a successful invasion of the new host organism.



The barbed mouth of the tick (greatly enlarged)

The victim usually doesn't notice the tick bite because the saliva of the tick contains substances that work like a local anesthetic. Not until these are beginning to take effect does the tick push its barbed mouthpiece into the numbed skin deep enough to reach the small capillaries. The saliva contains a sticky adhesive substance that helps to fix the proboscis in the skin, and an anticoagulant to keep the blood from clogging. For two or three days, sometimes longer, it laps up blood. During that time, its weight increases greatly, to one to two hundred times its incipient weight. When the stretchy, leathery abdomen is completely full, the tick falls off, lays its eggs, and dies shortly afterward.

Ticks can take temperatures way below freezing. But it isn't until spring comes and the temperature rises to above 50°F (10°C) that ticks become active. In late summer, it becomes too hot for them and they retreat. For this reason most Lyme disease infections occur in early summer. This also pertains to the tick-borne inflammation of the brain (Early Summer Meningoencephalitis, or ESME). Ticks do have natural enemies: ants and spiders eat their eggs and larvae. Different kinds of mildew and nematodes attack them. For some bird species, ticks are a special treat. Tiny, parasitic wasps (*Ixodiphagus hookeri*) deposit their eggs on ticks. When the wasp larvae hatch, they begin to eat the tick from the inside out. Theoretically extremely long, cold winters destroy them. Extremely mild winters, however, are even worse for them. When it is too warm, they do not fall into torpor, the state of total inactivity, and thus expend so much energy that they do not survive into the next season.

Diseases Spread by Ticks

Next to Lyme disease, ticks can pass on many other quite unpleasant infectious diseases. Sometimes (though seldom) these appear as co-infections with Lyme disease. Experts estimate that anywhere from 120 to 800 diseases can be passed on by tick bites. Among

them are the following:

- **Relapsing, or recurrent fever** (*Febris recurrens*), also caused by a spirochete. The symptoms are recurring bouts of fever, enlargement of the spleen, bleeding spots on the skin and on mucous membranes, muscle and limb pain, and diverse complications.
- **Babesiose, or piroplasmosis**, a malaria-like infection caused by protozoa. Mainly found in animals, seldom in humans, the disease is characterized by cell breakdown, resulting in symptoms such as bloody urine, anemia, and hepatitis.
- **Spotted fever, typhus, or famine fever**, a group of diseases caused by *Rickettsia* bacteria. The bacteria colonize the inner cellular lining (endothelia) of the blood vessels and organs and cause high fevers, headaches, and pain in the limbs, splotted skin irritations, even meningitis and a breakdown of the metabolism. **Rocky Mountain spotted fever** is related, as well as **five-day fever** and some others.
- **Ehrlichiosis**, a bacterial infection that causes headaches, chills, and muscle pains. It infects and kills white blood cells.
- **Early summer meningoencephalitis (ESME)**, most likely passed on by ticks through a virus. It is flu-like at first (headache, sore limbs, fever). In rare cases it can turn into meningitis, even causing brain damage, especially in the elderly.

We live in a time in which the brain and intelligence are worshipped like idols. In northern Europe the idea of brain-damaging ESME causes sheer hysteria. A recent government-sponsored campaign in Austria urgently recommended the inoculation of anyone who ventured outdoors in regions of extreme risk.¹⁰ Billboard posters depicting a grotesquely enlarged arachnid head with bristling chitinous mandibles poised for attack were displayed all over the country. One would think this was an advertisement for the latest Hollywood horror movie. But it was not. It was a promotional campaign for preventive vaccinations and it was successful, as nearly ninety percent of the Austrian population let themselves be inoculated. In the last twenty years thirty-five million dosages of the vaccine have been sold—good news for the stockholders of the pharmaceutical company that manufactured the shots.

People were led to believe that this vaccination could prevent all tick-borne diseases, including Lyme disease. Actually it is aimed only at the virus responsible for ESME. It certainly does not provide immunity to Lyme disease. To this day there is no vaccine available against Lyme spirochetes.

In December 1998 the pharmaceutical giant Smith Kline Beecham Biologicals proudly announced that a safe and reliable vaccination (LYMERix) against the dread disease was finally available. The genetically engineered new vaccine, containing parts of the outer surface protein coat (OspA) of the spirochete, would cause the immune system to produce the appropriate antibodies. A promising \$500 million market loomed. Soon, however, it became evident that LYMERix had so many disastrous side effects that it had to be taken off the market in February 2002, following a flood of lawsuits. The

vaccination triggered an autoimmune reaction or reactivated acute Lyme disease symptoms. The body's own immune cells (T cells) went wild and attacked cartilage in the joints as if it were a foreign intruder and dangerous to the body. Some of the vaccination victims ended up in a wheelchair; pregnant women aborted abruptly.¹¹

Dogs, like humans and other mammals, can come down with Lyme disease. While there is no vaccine for humans, there are, curiously enough, currently three types of Lyme vaccines on the market for use in canines. Is the immunological response in man's best friend really that much different than it is in humans? I doubt it. A veterinarian friend who has done research in this field told me that the shots are basically useless. But they are a profitable business—after all, who doesn't want the best for one's pooch? Not only that, she suspects that this practice of vaccinating dogs amounts to a long-term, large-scale field test, to finally develop a viable vaccine for humans, with the pet owners themselves helping to finance this experiment.

Medical authorities recommend three vaccinations within a one-year period in order to achieve basic protection against ESME. A booster shot is required three years later, and then every five years. The serum contains deactivated ESME viruses, cultured in chicken embryos and incapable of reproducing. It also contains aluminium hydroxide, formaldehyde, thiomersal (a fungicide containing ethyl mercury), and, depending on the manufacturer, traces of various antibiotics. The vaccination is recommended for all forest workers, farmers, campers, joggers, hikers, children playing outdoors, and any other person who dares out into nature or comes into contact with so-called reservoirs of the virus, such as mice, birds, deer, and other animals of the wild. Even the milk of goats or sheep is suspect.

Such effort makes one think that ESME must be a rampant epidemic. But is it really? In so-called high-risk areas, such as most of Austria, northern Switzerland, and parts of southern Germany, ESME viruses were found in one of 900 ticks examined. For 60–70 percent of the people who come into contact with the virus there are no consequences. Usually people do not even notice when a tick has bitten them; 20–30 percent develop flu-like symptoms, and neurological complications occur in only 5–10 percent of those coming into contact with the virus. These neurological symptoms almost always disappear on their own accord, especially with children.¹² The risk of having any longlasting damage is one in 78,000. By contrast, one in 32,000 vaccinations causes nerve damage—precisely the damage that is supposedly avoided by the vaccination!¹³ The risk is too high to justify the vaccination.

In Germany, a country with a population of 82 million, an average of 261 cases of ESME are reported yearly, only one of which is fatal. That means a mortality rate of one in 82 million. In Switzerland (population 7 million), an estimated 100 people contract ESME annually. And in Austria (population more than 8 million), there were 41–82 FSME cases registered between the years 1999 and 2004. Despite the massive vaccination campaign, the number of cases increased in the year 2005 to 100, with three fatalities. An epidemic? Certainly not! The chance of getting struck by lightning is greater!

There is another thing to consider: vaccination critics rightly claim that the symptoms

attributed to ESME could easily come from other sources, such as pesticide contamination or the adverse effects of medications. On top of that, the accuracy of the tests for the ESME virus is not verified. Finally, the prior condition of patients' health and living habits are not considered.

Natural Help When ESME Is Suspected

As with all viral infections (flus, colds, measles, herpes, Dengue fever, mumps, chicken pox, mononucleosis), one should do all one can to support the immune system by living a sensible lifestyle and avoiding excessive alcohol consumption, drugs, junk food, and other unhealthy habits. Getting enough fresh air, sunshine, sleep, and physical exercise, and eating well-balanced meals, avoiding foods that leave one acidic, is helpful. Fruits and vegetables rich in vitamin C help ward off viruses. Onions and garlic strengthen the body's defenses. In addition, the following antiviral herbal teas and juices can be beneficial:

- **Elderberry** (*Sambucus niger*). Both the blossoms of the black elderberry, picked in midsummer, and the juice of the purplish-black berries, gathered in the fall, have proven effective against various viral infections, including herpes and shingles. The berries, placed in a pot, are cooked without water, strained, sweetened with sugar or honey, and seasoned with ginger, cardamom, cinnamon, and lemon juice.
- **Yarrow** (*Achillea millefolium*). An infusion (herbal tea) strengthens the immune system. It is diaphoretic, diuretic, and detoxifying, which means that the patient sweats and urinates copiously, thus flushing the system of various toxins.

Other plants with immunological and antiviral qualities are the following:

- **Lemon balm** (*Melissa officinalis*), taken as a tea, tincture, or bath supplement.
- **Boneset** (*Eupatorium perfoliatum*), a native of North America, taken as a hot tea.
- **St. John's wort** (*Hypericum perforatum*). The tea or tincture is not only a wonderful antidepressant and antispasmodic, but also has antiviral properties.
- **Purple coneflower** (*Echinacea angustifolia*). Tinctures, decoctions (made by boiling the root in water), and the powdered roots can be used for strong antibiotic and immune system stimulant effects (Chevallier 1996:90).
- Purification and detoxification during viral infections are aided by the diuretic infusions of **stinging nettle** (*Urtica dioica*) and **goldenrod** (*Solidago* spp.) as well as by including fresh salad greens in the diet (Storl 2005b:15).

Other Possible Vectors for the Spread of Lyme Bacteria

Borrelia spirochetes have also been found in other biting and blood-sucking arthropods, such as fleas, mosquitoes, and horseflies. Theoretically these insects can also act as

vectors for passing on Lyme disease. But this is less likely, since the contact between host and parasite is of short duration, and they are less likely to empty the content of their gut into their victims. However, in Connecticut and in Germany there are recorded cases of Lyme disease passed on by fleas, and in Russia by mites. Some American researchers suspect that grazing animals, such as cows and horses, are infected with the disease through urine, since it is shown that the spirochetes can pass unharmed through kidneys and bladder (Buhner 2005:17). However, the spirochetes have no chance of surviving outside of the milieu of the body of a host organism, so that this pathway of infection is most unlikely.

The question remains whether borrelia, contrary to common opinion, can be passed on from person to person. In the case of blood transfusions, organ transplants, or from mother to fetus, it is possible. Scientists found borrelia spirochetes in sexual secretions, sperm, tears, urine, and mother's milk. Some researchers claim to have clinical evidence for sexual transmission of Lyme disease; the spouses of Lyme disease sufferers generally test serologically positive (Harvey and Salvato 2003:746). Dr. Lida Mattman, a Yale graduate and the director of a medical research institution in Michigan, even believes that a simple contact can transmit the disease: sharing writing pens, shaking hands, or touching doorknobs can be dangerous. This is highly unlikely. It is more probably, as anthropologists would put it, the expression of an American cultural theme: the exaggerated fear of germs (Kane 2004). Once again we see that Lyme disease is an open field, with many assumptions and little definitive knowledge.

Our domestic animals—cats, dogs, cows, and horses—can also be victims of Lyme disease. A study¹⁵ in Switzerland showed that one-third of the tested cows carried antibodies to borrelia spirochetes. Despite positive titers,¹⁶ the cows showed no obvious disease symptoms. Since the milk also contained antibodies, the question came up whether Lyme disease could possibly spread through milk and meat consumption.

MEASURES TO PROTECT AGAINST TICK BITES

Before going out into nature, rub essential oils on the limbs and all exposed skin areas. Try cedar milk, clove oil, cajuput oil (*melaleuca*; also called tea tree oil), peppermint oil, or other essential oils. To guard themselves against ticks, mosquitos, and other sucking insects, the Native Americans used similar methods, rubbing their skin with fragrant herbs. A mixture of tea balm oil, clove oil, and geranium oil, mixed with cold-pressed olive oil, sunflower oil, or some other vegetable oil, will be very effective and at the same time gentle to the skin.

Remove the tick quickly. So-called tick tweezers are commonly used to remove the biting bug from the skin. Some “experts” claim that the tick must be turned clockwise, while others say counter-clockwise. Leave it to your political conviction, whether you give it a left or a right twist. Actually, ticks do not wind their proboscis into the skin like a screw—they penetrate by piercing. For that reason it

is best to just pull them straight out. Most tick tweezers are actually too blunt. They squeeze the tick causing it to vomit its stomach content, including spirochetes. Even worse is trying to get rid of a tick with fingernail polish, oil, glue, or by lighting a match to it. Most of the borrelia infections are a result of such inept methods to get rid of the tick.

The tiny larvae or pinhead-sized nymphs are best scraped off with a sharp knife or razor blade. A grown tick can be best removed with a hook tweezer, a tick spoon, or fine-tipped curved tweezers that nab it between the head and thorax and then pulling it out quickly. Afterwards daub the bite with bactericidal tea tree oil (melaleuca) to disinfect it.

Whoever lives in an area of strong infestation can, as a precautionary measure, take homeopathic borrelia-nosode D30¹⁴ for three days prior to any undertaking in the woods.



Borrelia spirochetes have existed on earth for a long time, hundreds of millions of years. They have gone unnoticed. Why are they suddenly found in humans and domestic animals? It seems that, due to increased selection pressure related to environmental stress, these bacteria have accelerated their mutation rate and have recently extended their habitat into a greater number of mammalian hosts, beyond just deer and rodents.

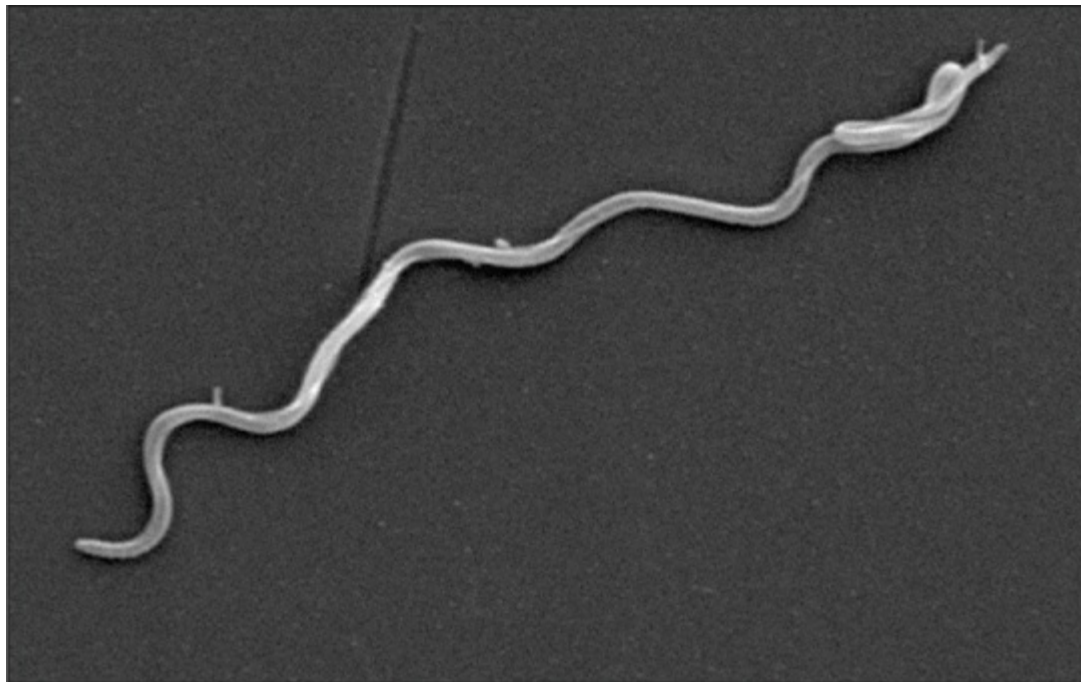
The Make-Up of the Borrelia Spirochete

Let us have a closer look at the microscopic creature that uses the tick as a vehicle to invade mammalian organisms. The corkscrew or serpent-shaped bacterium, named after Willy Burgdorfer, *Borrelia burgdorferi*, is related to the syphilis spirochete (*Treponema pallidum*). The generic term borrelia derives from Amédée Borell, bacteriologist in Strassburg (Strasbourg), who discovered the genus in 1905. The borrelia, of which there are worldwide some 300 kinds, are basically a biological wonder. Their organization is more complex than that of their relatives, the syphilis, pinta,¹⁷ or framboise¹⁸ spirochetes.¹⁹ Compared to other bacteria, they are masters of guerrilla tactics when it comes to invading bodies. The “Pentagon” of school medicine describes them in terms more commonly used in the fight against terrorism: they carry on clandestine operations in an asymmetric war against the body’s defense, or, like “sleepers” or covert agents, they slip the organism’s intelligence net (immune system). Here, summarized, are some of their astonishing typical characteristics:

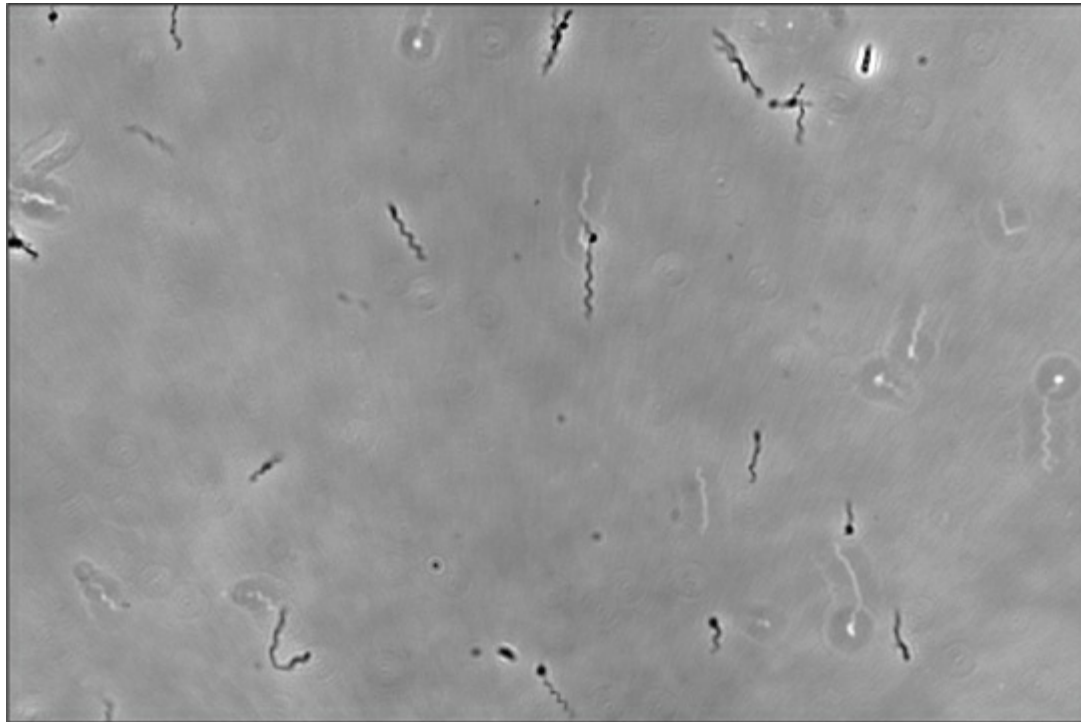
- Their cell walls contain twenty-one plasmids—self-replicating, ring-shaped DNA

molecules, carrying their own genes, which are capable of passing on information to the bacteria about the immunological defense of various hosts. The plasmids are also capable of passing on information regarding resistance to antibiotics. No other bacteria have such a high number of plasmids.

- Borrelia are highly specialized; it is barely possible to cultivate them *in vitro* in a laboratory, which makes them difficult to study.
- They have a three-layered cell wall. The outer covering, similar to other kinds of bacteria, is composed of a slimy layer made of surface proteins (bacterial lipoproteins, BLP). This slimy coating, with ever changing configurations, protects them from lymphocytes (T cells and B cells) of the immune system. The coating serves as a magic cap; antibodies and phagocytes cannot recognize the borrelia as “alien” (*antigens*). In normal gram-negative bacteria these surface proteins are encoded with three genes, whereas borrelia involve 150 genes (Taylor 2004:17). These genes allow them to change their appearance, their antigens, constantly and immediately. The 150 genes also help the borrelia adjust to different environments (such as temperature changes, pH variations, and the milieu inside the various host bodies they colonize).



Borrelia, a snake-like spirochete (photograph by Dr. M. A. Pabst, Graz, Austria)



Borrelia spirochetes can penetrate any kind of body tissue (photograph by Dr. M. A. Pabst, Graz, Austria)

- Depending on the conditions of their environment, borrelia can take on different forms. Besides the normal spiral or corkscrew spirochete form, they can cast off their cell wall and, held together by a thin pliable membrane, take on globular form. In this way, cell-wall-inhibiting antibiotics are rendered useless. In this spheric form (also called L-form) they are not recognizable for the immune cells; they have, so to say, no “features,” no antigens, by which they could be recognized.
- Borrelia can also encapsulate and go into dormancy within minutes. They seem to do this when their environment is polluted by antibiotics, for example. Until the environment improves for them, they can remain dormant for at least ten months without carrying on basic life functions such as metabolism or dividing. As long as they are metabolically inactive, antibiotics have no effect on them. The patient believes he has been finally cured, but then the symptoms rebound anew.
- Borrelia can attach to host cell walls (mainly scar-tissue cells and even defense cells) and induce the cell to release its own digestive enzymes, which eat a hole in the cell wall. The spirochete then enters the cell, kills the nucleus, and wears the cell wall as a disguising cloak or mask. This is another way in which these terrorists of the microscopic world evade recognition by the immune cells.²⁰
- Borrelia replicate parts of their genes, build them into the cell wall, then throw off this part of the cell wall and send these splitters, so-called blebs, on a trip through the host organism. This not only confuses the host organism’s defense reaction; it also seems to enable the bacterial cells to communicate with each other.
- Borrelia are even capable of outsmarting the immune system through molecular mimicry. That means that the borrelia spirochetes can imitate the host’s own body cells by changing the molecules on their surface. By thus disguising themselves, they

fool the defense reactions of the body. If, nonetheless, they are recognized as antigen, then it is probable that the immune system launches its attacks not only against the pathogenic mimics, but also the body's own corresponding cell tissue. In other words, if the spirochetes have mimicked the cells of the myelin sheath of the nerves, then the immune system will treat the body's own myelin as an alien intruder, resulting in autoimmune symptoms of multiple sclerosis (MS). If mimicking cartilage cells, autoantibodies against the cartilage of the joints will be produced. The result is a severe autoimmune disease.

- *Borrelia* direct and manipulate the host by excreting peptides and metabolic waste products, thus creating a favorable milieu for themselves. In this way they can even affect the feelings and mood of the host, possibly influencing thoughts and decisions. In a similar fashion fungal organisms (*Candida*) can cause a desire for sugar and sweets in their host.
- Even though *borrelia* are able to hide inside cell walls, their preferred environment is in the fluids external to the cells. They are more comfortable in colloidal, jelly-like substances, such as the lubrication fluid of the joints (synovial fluid), the vitreous humor of the eyes, or cerebro-spinal fluid, as well as endothelial tissue,²¹ nerve myelin, cartilage, and scar tissue. Generally they avoid blood or lymph liquid as a habitat. For these reasons they are often not detected in serum though they are present in the body.
- *Borrelia* are highly motile. Propelled by an internal arrangement of minute hairlike lashes (cilia) and a stretchable axial thread, they can quickly swim their way through body tissue and fluid. In this way, they can colonize the body—eyes, liver, spleen, limbs, bladder, capillaries—within a few days and penetrate tissue where antibiotics cannot easily reach. Within ten days after infesting the body, they can cross the blood-brain barrier, which is not even possible for white blood cells to cross (Grier 2000).
- They need very little oxygen to survive. Thus, they are able to hide in cartilage, scar tissue, peripheral nerves, the endothelial encasing of the blood vessels, and other tissue, where blood circulation and oxygen supply are at a minimum.
- In contrast to other bacteria, they do not need iron (Fe) in order to survive.
- Unlike most other bacteria, such as staphylococci or streptococci, which divide every twenty minutes, *borrelia* spirochetes multiply very slowly. They double at a rate of every twelve to twenty-four hours. Since most antibiotics attack the cell wall, while the bacteria is dividing during new cell wall formation, this makes them less vulnerable to many antibiotics. If their environment is disagreeable to them the *borrelia* remain dormant for long periods of time without dividing. As Lyme disease sufferers have noticed, the spirochetes seem to reach reproduction peaks once a month, following a lunar rhythm of twenty-eight days. Bacteria that divide every twenty minutes can be eliminated with antibiotics within two weeks; given their slow reproductive rate, one would have to take antibiotics for up to eighteen months to achieve the same effect with *borrelia* spirochetes (Grier 2000).
- Spirochetes are chemo-toxically highly sensitive. They are able to rid their cells of

antibiotic poisons very quickly.

- *Borrelia* can tolerate cold down to -58°F (-50°C). Researchers have discovered these spirochetes in mammals such as seals and walruses, living in the polar seas. However, heat kills them: they are unable to survive temperatures above 107.6°F (42°C).

In our final analysis, what can be said? One can only be amazed by the intelligence and adaptability of this super microorganism. It should give us pause to think, to think before we shoot. Perhaps it has something to tell us. Perhaps it is a messenger of Gaia.

CHAPTER THREE

The New Epidemic

Lyme disease ... does it really exist?

—*MEDICAL TIMES*, April 16, 2000

One recognizes the novice when it comes to Lyme disease treatment. Antibiotics are pedantically prescribed which help only in the short term and seldom bring long-term relief. We have observed (with long-term antibiotic treatment) serious and permanent side effects, for example, kidney failure, tinnitus, and a weakening of the immune system, among other things.

—DIETER KLINGHARDT, MD, Lyme disease specialist (2005)

Patients with post-Lyme disease syndrome who have received a two-month course of doxycycline, an antibiotic that enters the cells, had no greater improvement than those who received a placebo.

Five double-blind, randomized, placebo-controlled clinical trials have convincingly demonstrated that antibiotic treatment of post-Lyme disease symptoms is not in the best interests of patients.

—FEDER et al. (2007)

No other disease fools the doctors more than Lyme disease. It is often not even recognized in diagnosis. Most tick bites are harmless. They do not necessarily lead to an infection, even if the tick harbors borrelia spirochetes. Most likely the invaders will be eliminated by a well-functioning immune defense. Sometimes, however, the defense is defective and the borrelia invade. As a result, a reddish ring, a rash resembling a bull's eye, forms around the site of the bite, slowly enlarging from the center, and then, after a few days or weeks, slowly fading away. This *Erythema migrans* is considered to be the most important diagnostic sign of a spirochete infection—but it doesn't appear in each case. In fact, some researches claim it occurs in fewer than half of the infections.

The multitude of symptoms that follow are usually not correctly diagnosed by physicians. Aside from the possible circular rash, there are no unambiguous, well-defined pathognomonic symptoms for this illness. Lyme disease is a master of deception and can imitate practically any other disease. The number of symptoms can be certainly confusing to the doctor. They include intermittent arthritic pains that move from joint to joint, especially in the knees, pains in muscles and tendons, buzzing in one's ears, a stiff neck, headaches, problems with eyesight, numbness in limbs, exhaustion, heart disturbances, loss of muscle tone on one side of the face, fever, disturbances of the autonomic nervous system, stomach ache, intestinal pain, shaking, pain in the breast,

and many other problems. Often symptoms are accompanied by neurological and psychological complaints, such as lack of concentration, disturbance of short-term memory, depression, fear, or aggressiveness. What will the average physician make of these complaints? He or she will most likely diagnose fibromyalgia, chronic fatigue and immune deficiency syndrome (CFIDS), multiple sclerosis, Parkinson's disease, lupus, Alzheimer's disease, rheumatoid arthritis, amyotrophic lateral sclerosis (ALS), sensitivity to chemicals, or even psychological disturbances. These will then be treated accordingly.

Such incorrect diagnoses lead, however, to incorrect treatment. This makes everything even more complicated. The patient who comes into the doctor's office with joint pain will most likely be treated with pain-alleviating, anti-inflammatory corticosteroids. One of the many side effects of this "magic potion" is that it reduces body immunity against bacterial infection. That, of course, makes it easier for the borrelia. Highly unpleasant side effects can also be expected from long-term cortisone medication: retention of sodium, which may raise blood pressure and cause a swollen face ("moon face," or Cushing's syndrome), weakness of muscles and softening of the bones, increased danger of clots forming in the blood vessels, "parchment skin," insomnia, depression, irritability, suicidal tendencies, and disturbances in the monthly cycle for women. Recent research has indicated that sixty percent of patients diagnosed with multiple sclerosis test positive for borrelia spirochetes (Klinghardt 2005). Most likely the spirochetes or their toxins had damaged the myelin, the sheathing of the nerve fibers. Other patients whose nervous system has been affected after the borrelia have crossed the blood-brain barrier often show signs of mental instability or dementia. These patients, suffering from such neuroborreliosis, are frequently diagnosed as mentally disturbed or even psychotic and are referred to a psychiatrist. This happened to a storekeeper in our neighborhood, an otherwise very quiet and friendly woman. She suddenly took an axe to her cupboard and chopped it to kindling. "I wasn't myself!" she said afterwards.

When a patient with the bull's-eye rash comes into his office, the seasoned doctor will most likely suspect a case of Lyme disease and order a series of blood serum tests, starting with the ELISA (Enzyme Linked Immunosorbent Assay) test. If the test result is positive he will continue with the more sensitive Western Blot test. If these tests do not indicate the presence of borrelia antibodies, then the physician will resort to the standard treatment procedure called for by the symptoms, treating the patient for arthritis, MS, Parkinson's, burned-out-syndrome, or whatever. If, however, both tests are positive, if antibodies are found in the serum, then the physician will resort to the usual procedure: an antibiotic cure of a few weeks. Sometimes this "shotgun cure" works. Often, however, it does not. In that case, the only recourse that comes to mind is to prescribe even more antibiotics. Thus it has come about that ever more patients are treated with antibiotics for months. Increasingly, the antibiotics are even administered intravenously.

After an antibiotic treatment, patients are typically told that they are cured. If the symptoms come back after a presumed successful antibiotic cure, the medical profession talks of the post-Lyme syndrome (PLS)—that is, if the patient is not accused of

pretending or being a hypochondriac. For the sufferers of Lyme disease this is very frustrating. On the average it takes twenty-two months and the patient goes through seven doctors before Lyme disease is correctly diagnosed.²²

Why Tests Are Not Reliable

Many doctors believe that ELISA and Western Blot tests are accurate. But when the tests themselves were tested it became obvious that their accuracy ranged around a mere fifty-five percent.²³ There were numerous false positive results (in which non-infected tested as infected) as well as false negative results (in which infected tested as non-infected). These tests obviously have little validity. In addition, different laboratories came up with different results and identical blood samples often tested differently.

If this is really the case, the doctors could just as well flip a coin, heads or tails, in order to determine whether the patient has Lyme disease. Dr. Thomas M. Grier, who researched the subject, decided that the best test is simply to ask the patient, “Well, how do you feel?”

How is it that these unreliable and contradictory test results come about? Let’s look at some possible reasons:

- Serological tests, such as ELISA and Western Blot, depend on the body’s ability to develop antibodies against the borrelia bacteria and they only determine the number of antibodies present.²⁴ The IgM antibodies do not develop until the third week after the infection. They reach their peak between the fourth and sixth week, and disappear after the eighth week. This means that if the test was done in the early phase, the results are negative even though the patient is infected. An antibiotic given too soon can also dampen the endogenous immune response.
- The IgG antibodies, which develop later, stay in the blood for many years. Even when the patient has been healed and has no more borrelia, their presence will render the test results positive.
- Autoimmune diseases, bacterial infections (especially syphilis), and some viral infections such as herpes or Epstein-Barr can also result in false positive test results.²⁵
- Another source of error in the diagnosis are some forty strains or subspecies of borrelia spirochetes. Each of them shows a differing serological pattern.
- As mentioned in the previous chapter, these bacteria are masters of disguise and manipulation. They hide in human cells and tissue (joints, tendons, white blood cells, skin cells, brain) where blood circulation is poor or practically absent. They can hide their surface antigens or alter their antigenic appearance, so that antibodies often do not even develop.
- When the antibodies latch themselves to bacterial antigens in order to neutralize the invaders, they can no longer be identified as antibodies. They are then a part of the so-called antibody-antigen complex. These complexes are not measurable by

currently available tests. A low antibody count (titer) does not necessarily mean there are few antigens present, but simply that they are now no longer measurable. This means that a person with a low antibody count may very well have a severe infection. A person testing serologically negative is not necessarily cured.

- Moreover, the antibody titer changes continually. In different phases of the sickness it can be low or nonexistent. No one can say whether the infection is still active or has already been healed.

Next to ELISA and Western Blot there are other tests available, but these are equally problematical:

- A spinal tap not only shows thirty percent false results, but is also painful and risks are involved.
- The Polymerase Chain Reaction test (PCR) tries to detect the genetic sequences, small bits of spirochete DNA in the blood, skin, urine, or joint fluid and multiplies them several million times. Variation in bacteria protein, sample contamination, risk of false positive results, or the fact that the tissue tested is free of borrelia while actually other tissue is affected are some of the problems that make the test imprecise.
- The LTT (lymphocyte transformation test), which tests the white blood cells' reaction to the Lyme bacteria's surface proteins, is also problematic. It is not standardized and is hampered by the variability of bacterial proteins.
- The RIBb test (Rapid Identification of *Borrelia burgdorferi*), developed by Dr. Jo Anne Whitaker (Bowen Research Institute, Florida), is a fluorescent antibody test that shows antibody-antigen presence in body fluids. She writes that since 1999 every test showed positive, with not a single one negative, concluding that "the problem is not only endemic, but has meanwhile reached epidemic proportions" (Whitaker 2003:11).
- The Visual Contrast Sensitivity test (VCS) measures the ability of the patient to recognize different shades of grey colors. It is assumed that fat-soluble bacterial biotoxins or neurotoxins can occupy the synapses of the optic nerves, which makes the patient unable to distinguish clearly among grey tones. Some studies (Hartmann and Müller-Marienburg 2003), however, question whether fluctuation in perceiving grey tones is even characteristic of borrelia infestation.

Because accurate test results are so difficult to obtain, no one really knows how many cases of borrelia infections there really are. The estimations of experts vary greatly. No one knows how many cases have been diagnosed incorrectly as other sicknesses, such as fibromyalgia, chronic fatigue, depression, and multiple sclerosis. How many cases are not even reported? On the other hand, there is concern that doctors diagnose Lyme disease too readily, too often. The Swiss Federal Health Administration (Bundesamt für Gesundheit, abbreviated BAG) reports 3,000 new cases a year in Switzerland, claiming that if discovered soon enough, they are easy to cure. The American Centers for Disease

Control (CDC, Atlanta, Georgia) estimates 20,000 new infections per year in the U.S., while studies from Harvard claim 200,000 new cases per year (Buhner 2005:4). The CDC estimates the entire number of infections in the U.S. to be about 1.8 million. According to statistics of the Borreliose Bund in Germany (Munich), there are 60,000 to 100,000 new cases per year in Germany, making it the second most common infection next to salmonella-caused infections (Görisch 2006).

A CLOSER LOOK AT THE SYMPTOMS

The *Erythema migrans*, a reddish ring that slowly expands from the bite itself, is considered by many doctors to be the most important indication of Lyme infection. Still, less than half of the infected get this rash. The EM is a sign that the immune system is functioning and responding. Some who suffer this rash experience no further symptoms. Others experience from the onset flu-like manifestations, fever, fatigue, a stiff back, headaches, aching limbs, and swollen lymph channels.

Within weeks or months a patient might suffer muscle pains (*myalgia*), facial nerve paresis, neurological problems, numbness, tingling in the hands or feet, mild encephalitis, aching teeth, and often acute attacks of arthritic pain, especially in the knees, wandering from joint to joint.

In the late stage chronic symptoms can develop. These can take on myriad forms. Lyme disease is after all a great imitator. It can seem to be maladies such as multiple sclerosis, rheumatoid arthritis, abnormal fatigue syndrome, latter-stage syphilis, Alzheimer's, colitis, lupus, scleroderma, chronic pain in the entire body, psychosis, and so on. The most common of the third-stage symptoms are:

- Inflamed joints, usually the knees, leading, with eleven percent of patients, to cartilage destruction.
- Parchment skin (*akrodermatitis chronica atrophicans*), which, however, can also be interpreted as a side-effect of long-term cortisone treatment. It is characterized by thin, crinkled, cigarette-paper-like skin with a bluish hue, accompanied by edemas and atrophy of the fatty tissue under the skin.
- Inflammation of the heart muscle (*myocarditis*).
- Paralysis, psychosis, and other signs of mental dysfunction (*neuroborreliosis*).
- Chronic fatigue and immune dysfunction syndrome (CFIDS).

Despite correct biomedical treatment with antibiotics, fifty percent of the treated patients complain about later complications.



Lyme disease experts William T. Harvey and P. Salvato (Diversified Medical Practices, Houston, Texas) estimate that 15.5 percent of the world's population (nearly a billion people) is infested by Lyme disease spirochetes. And Dr. Lee Cowden believes that half of the patients who are chronically sick are actually suffering from Lyme disease (*Nutra News*, October 2003). But these numbers are only estimates and they vary considerably. Experts who have some miracle cure to sell usually come up with much higher estimates than independent researchers.

Stages of the Disease

As with the related spirochete infection, syphilis, one can make out three stages of Lyme disease (Taylor 2004:22). There are no specific pathognomonic symptoms marking the first stage other than the classic bull's-eye rash (*Erythema migrans*, or EM). The second stage is frequently accompanied by symptoms such as paralysis of the face muscles (a closed eyelid or a hanging lip, for example). Characteristic of the third stage are chronic joint pain (Lyme arthritis), neurological malfunctions, and occasionally chronic skin irritations. These symptoms, however, do not always occur, making Lyme disease difficult to diagnose.

Like syphilis, Lyme disease comes in recurrent phases. After an ebbing of the symptoms and apparent healing, it can flame up again and again.

Where Did Lyme Disease First Appear?

Lyme disease is a new disease. Our grandparents did not know it. It was first identified in the small town of Lyme, Connecticut in 1975, and not until 1982 did it appear in medical literature. However, since the beginning of the twentieth century there were sporadic reports about a "spreading red ring" occasionally forming around the bite of a tick. And in 1902 two German doctors, Herxheimer and Hartmann, described the discolored, "cigarette paper skin" (*akrodermatitis chronica atrophicans*) that is recognized today as an accompanying symptom of Lyme disease. In 1930 a Swedish doctor observed how a reddening of the skin as just described developed into chronic meningitis. But apart from such singular instances the relapsing multi-system illness, which is caused by this species of spirochetes, was unknown.

Where did the disease come from? There are many suppositions. Let us look into some of the theories that one hears most often.

Is Lyme disease an old disease, which wasn't recognized before? The British medical news magazine, *The Lancet* (October 1995), published a report of dried-up ticks found on foxes that had been stuffed by taxidermists in 1884 and kept in a museum in Austria. Two of the ticks contained traces of borrelia DNA. In Massachusetts genetic traces of these spirochetes were found in the ears of white-footed mice preserved in the year

1894. Were the bacteria not as virulent back then? Or were singular symptoms simply ascribed to other diseases?

Is the disease a recent mutation, a result of the severe selective pressure to which the spirochetes are subjected due to massive use of antibiotics? Could it even be the counteroffensive of the bacterial entities upon which we have declared war? Do these minuscule beings perhaps have an overriding intelligence, a group soul that is avenging itself? Or could it be the earth organism, Gaia herself, putting the brakes on humanity, which is ever harming, exploiting, and desecrating all of nature? These are, of course, philosophical questions, whose answer lies beyond the means of scientific methodology, but which mystical insight might perhaps answer correctly.

Or are we dealing with manipulated organisms that escaped out of the laboratories of gene technicians or producers of biological weapons? In the U.S. a rumor persists that Lyme disease is the creation of Nazi scientists for use as a biological weapon. Not only were rocket and space scientists (such as NASA space pioneer Werner von Braun) and developers of jet aircraft brought to America as war booty under the secret Operation Paperclip but also experts in biological warfare. Contracted by the Pentagon to continue bacteria and virus experiments, they continued in the 1950s their B-weapons research in a laboratory on Plumb Island (Connecticut), only nine miles away from the town of Lyme. Their work included research on bacteria-infested ticks that were to be dropped by airplane on the Soviets or on Castro's Cuba. Unfortunately, leaks and accidents occurred, allowing these modified organisms to escape. On several occasions, it was observed that at low tide deer managed to swim to the island in order to graze there. Was it then that borrelia-infested ticks contaminated Connecticut deer? Also, migratory birds landed regularly on Plumb Island. The Dutch Duck Plague, 1967, leading to a dying off of wild ducks on nearby Long Island, is supposed to have originated on Plumb Island. It is around that time that the Lyme disease mutants seem to have gotten out of control.

Plumb Island has since been shut down. However at the Research Center against Biological Terrorism at the University of Texas in San Antonio, research continues on anthrax, tularemia (rabbit fever), cholera, Lyme disease, Desert Valley fever, and a variety of plagues associated with parasites and fungi. All of these have the potential to be used as bioweapons.²⁶ Perhaps these abstruse theories and information, which flood the Internet, have no real basis and belong to the genre of Hollywood science fiction films. At any rate, they are food for the paranoid imagination.

Are environmental degradation, climate change, and the upsetting of the natural balance through human activity the main vector of the spread of this tick-borne disease? Dr. Dieter Klinghardt, a medical doctor specializing in Lyme disease, seems to think so. He speculates that rising global temperatures and deforestation weaken the immune response of mammals, including humans, and provide a climate favorable to blood-sucking parasites (Klinghardt 2005).

Perhaps the borrelia spirochete is not the cause of the Lyme disease but only an opportunistic microorganism that appears when the immune system is already weakened, for instance through toxic chemicals, food additives, heavy metals (as found

in amalgam fillings of the teeth), exposure to electric smog (mobile phone radiation, fluorescent lights, electromagnetic waves), long-term results of inoculations and vaccinations, or side effects and synergisms of medicines? Perhaps that would explain why domesticated dogs, cows, and horses are more likely to contract Lyme disease than wild animals are. Domesticated animals are more likely to be exposed to all sorts of measures, such as disinfection, inoculations, worm cures, and antibiotics and other measures that can weaken the immune system.

Are the borrelia, in reality, only symbionts (organisms living in symbiosis) that have always lived in other living beings relatively peacefully and have just now been discovered and blamed for diverse ailments?

Or is the Lyme disease panic perhaps even a conspiracy among the powers behind the scene of the medical and pharmaceutical establishment in order to create a profitable business? Is Lyme disease, as some doctors claim, only a simple bacterial infection that can be quickly stopped by antibiotic treatment? Or is it really a pandemic that has struck hundreds of millions of people and requires expensive research and treatment? Those experts who claim the latter say that this bacterium not only fools the immune system but also the doctors, in that it masquerades as other maladies and eludes screening techniques. It is estimated that up to half of diseases such as lupus, multiple sclerosis, Parkinson's, ALS, arthritis, autism, chronic exhaustion, multiple chemical sensitivity (MCS), immune weakness, Alzheimer's, schizophrenia, and many others are really disguised Lyme disease. According to Professor L.H. Mattmann, more than eighty percent of Americans have borrelia in their blood that can be microscopically recognized (Klinghardt 2005:2).

A pandemic that can hardly be confirmed by tests and which has countless masks is potentially big business. Like other horror visions of debilitating illnesses, it offers the prospect of huge profits. Cancer, AIDS, SARS, bird flu, and other viral alarms are slowly losing their shock effect. The brand new tricky and elusive spirochete invasion seems to arrive just in time to stoke fears and generate financial support for research. State health functionaries and pharmaceutical speculators are busy staking out their claims and the media campaigns do their part in calling for war against the ugly, blood-sucking ticks and the treacherous bacteria and viruses they carry. Clever doctors and medical researchers jump on the bandwagon.

Or are we dealing with an unrecognized stealthy incognito invasion from outer space, maybe from Mars or Pluto or even from another galaxy, as some of my acquaintances from the lunatic fringe, acidhead visionaries and New Age gurus, claim? Barely perceptible alien intelligences use the spirochetes as a vehicle to get into the bodies and minds in order to use them as their instruments. They outsmart the immune system and reprogram the metabolism, which in turn changes the feelings and emotions of the person. The invaders infiltrate the nervous and "information system" of their victim and reprogram the mind. A human being who is "occupied" in this way must muster up from his innermost being all of his or her mental and moral strength just to remain one's true self.

For Ruediger Dahlke, a well-known German specialist in psychosomatic medicine, the

disease comes not from outer space, but from inner space, from the archetypes of our collective unconscious, where Mars and Pluto represent principles of aggression. The ticks, these sneaky little vampires, and the pitiless spirochetes are the physical manifestation of these archetypal forces. Their presence gives us a chance to confront our own sneakiness, parasitism, or lack of compassion and to turn these planetary energies into a positive direction. He sees the disease as a teacher of our souls, forcing us to muster all the Martian strength and courage and the unbending Plutonian will possible. Lyme disease is thus an inexorable guru leading us to our center.

Deer and Mice: Ecological Factors

Plagues and epidemic diseases do not emerge from nothing, out of nowhere. Social and mental factors, population density, standards of hygiene, daily habits, and nutrition all play an important role in the absence or prevalence of contagious diseases. One of the most important vectors is the natural environment.

During the Neolithic period former nomadic hunters and gatherers became sedentary. The new settled way of life made it possible to store food and raise newly domesticated livestock. Up to a hundred times the population could now occupy the same land area. This necessitated new forms of social control and new power structures to govern the distribution of surpluses. In our schoolbooks this is presented as progress leading to civilization. But actually the Neolithic brought along drudgery, social inequality, and a host of new diseases. Storage bins attracted rats and mice. These ubiquitous rodents harbored lice, fleas, mites, and other vermin, which are, of course, carriers of a variety of protozoa, viruses, and bacteria. The waste, animal dung, and human excrement that accumulated around settled sites became the breeding ground for flies and other arthropods, fungi, and bacteria. To this very day feces in irrigation channels transmit diseases such as hepatitis, cholera, and, especially in Egypt, tropical Africa, and South America, bilharzias (*schistosomiasis*). Bilharzias, or snail fever, has become the second most widespread debilitating disease in the tropics, next to malaria. The snails that live in the water and feed on feces are the alternative host for the schistosoma flukes. These blood flukes befall anyone who wades in the water; they bore into the skin and penetrating the inner organs, the liver and the brain. The Neolithic brought regional environmental depredation. Already in prehistoric times Bantu farmers created ideal conditions for malaria mosquitoes by clearing parts of the tropical rainforest (McNeill 1998:65).

Since Neolithic times domesticated animals have shared immediate living space with human beings. Many of the microbes these animals host have managed to jump the species barrier, finding a new habitat in the human organism and adjusting to it. In this way the virus associated with cattle-plague or rinderpest transmuted to become the measles, a fearful pestilence that by now has turned into a mild children's affliction. Smallpox and tuberculosis were originally also gifts from cattle. Ducks transmitted the influenza virus to hogs as well as humans. We can thank cows, sheep, and goats for

brucellosis, a remittent fever, and our best friend, the dog, gave us whooping cough (Diamond 1999:207). For the microorganisms domesticated animals, cooped up in narrow quarters, inappropriately nourished and surrounded by their own excrement, are a convenient, easily accessible playground. Animals living in the wild are healthier, as were humans living as hunters and gatherers.

Ecologists are convinced that changes in the natural environment are also responsible for the development and spread of Lyme disease. Around 1990 one became aware that Lyme arthritis, first identified in New England in 1975–76, was spreading throughout North America as well as Europe. Ninety percent of the cases recorded occurred in New England, especially in areas where the forest cover had been clear-cut. In the coastal area between New York and Maine, in the years between 1982 and 1990, the number of infections doubled. Andrew Spielman, professor at the Department of Immunology and Infectious Diseases at Harvard, and his colleagues researched this disconcerting report. They concluded that the environment, abased by human activity, was a major factor in the spread of the disease (Garrett 1995:554).



American white-footed mouse

In the late 1800s the forest served as a source of energy for the iron industry and for construction timber. In the 1900s deforestation had advanced to the point where wood for heating had to be imported. The primordial forests were gone forever and with them the wolves, coyotes, and pumas. The shrubbery that grew in place of the original trees gave little shade. Eventually maple and birch trees began to cover the hillsides. In absence of natural predators the deer, opossum, and rodents like chipmunks, grey squirrels, voles, and white-footed mice multiplied unhindered, extending their habitat into areas of human settlement. Rascally little chipmunks and squirrels were playing in the gardens; deer with fawns as cute as Bambi were grazing on well-kept suburban lawns, children's playgrounds, football fields, and golf courses. These are the very same places where dogs and cats play, small children crawl, youngsters play ball, and families enjoy picnics. With the deer and the rodents, the deer tick (*Ixodes dammini* or *I. scapularis*) was literally carried into the back yard. According to Spielman, even if one were to shoot all the deer it would no longer make a difference. The mice, which are the main host for the blood-sucking tick larvae and nymphs, constitute a long-term reservoir of borrelia spirochetes. Not only have the natural predators disappeared, but the mighty trees, the tamaracks and oaks, which provided such dense shade that ticks could not survive well, are also gone.

The massive use of pesticides in the 1950s in gardens and fields also had a devastating effect. Unrestrained use of insecticides and pesticides killed not only ants, spiders, and

wasps but also birds that feed upon ticks in every stage of development—egg, larva, nymph, and adult.

Lyme disease is no longer restricted to the countryside of New England. It has spread elsewhere. Since the 1980s people in California are being infected, even though there are neither deer ticks nor white-footed mice in the Pacific Coast area. There are, however, dark-footed pack rats, which serve as hosts for two different kinds of ticks that have come in contact with the borrelia spirochete. In Texas and the Southwest it is the Lone-Star tick (*Amblyomma americanum*) that has become a reservoir of borrelia. In Australia another tick species (*I. holocyclus*) hosts a related kind of spirochete that causes symptoms similar to Lyme disease. In Japan and China different *Borrelia burgdorferi* strains (*sensu lato*) are found. In Japan they are *Borrelia japonica*, *B. tanukii*, *B. myammoto*, and *B. turdae*, and in China, *B. sinicia*.

It has already been mentioned that in Europe the carrier of the bacteria is not the deer tick (*Ixodes scapularis*), but the wood tick (*Ixodes ricinus*). The spirochetes are also not necessarily *Borrelia burgdorferi*, but can be the closely related *B. afzelii*, *B. garinii*, *B. spielmani*, or, in Portugal, *B. lusitaniae*. Ecological factors play a role in Europe also. The feeding of deer and hart by foresters during the winter keeps these populations artificially high and benefits the tick population, as deer are the favorite host of adult ticks. In Europe foxes have been wiped out, in order to control the spread of rabies. This also benefits ticks as there are fewer predators for rodents. It is probably not correct to blame the gradual warming of the climate for the recent population explosion among the ticks in Europe. Wood ticks need to go into torpor in response to freezing temperatures; otherwise, they remain active and often die from sheer exhaustion.

Again and again one hears forest workers, hikers, and farmers complaining about how many more ticks there are nowadays. A befriended forest ranger told me there seem to be more each year. He has seen deer with hundreds of ticks on them. In some places in Central Europe, one cannot even lie in the grass and watch the clouds drift by without being disturbed by them.

An Alibi Disease?

It is somehow puzzling that tick-borne diseases, which were practically unknown before the 1980s, suddenly spread in epidemic fashion simultaneously in America, Europe, and Australia.

Monika Falkenrath, herself a victim of the disease, is not completely convinced that it is only environmentally caused. In her well-researched book, the former teacher writes about her ordeal, which forced her into early retirement. She asks whether it has really been unquestionably proven that the borrelia organisms are responsible for all those various symptoms that are ascribed to them (Falkenrath 2005:34).

There are people who have tested positive for antibodies but have never had any symptoms of Lyme disease. At the same time there are patients with symptoms ranging from paralysis, muscle pain, or arthritic joints all the way to neurological disorders,

where the tests for borrelia are negative or at least ambiguous.

Sometimes, the latter are diagnosed as Lyme disease patients, and with others, even with identical symptoms, the disease is suddenly called chronic fatigue symptom (CFS), or multiple sclerosis (MS), or fibromyalgia, or Epstein-Barr, or Ehrlichiosis, or whatever. And if a stressed schoolteacher has such symptoms, then it is most probably called “burned-out-syndrome.”

—FALKENRATH 2005:34

The author goes on to ask how one can explain the sudden emergence of so many “new” diseases that are so similar and so difficult to diagnose. At first, when she went to the doctor with a bout of partial paralysis, muscle cramps, joint pains, short-term memory loss, and concentration disturbances, she was diagnosed with polio. Indeed, her serological polio titer was very high. How could that possibly be? Didn’t she have all the necessary polio vaccinations as a child? And where could she have picked up the virus? Had it come from polluted water? West German doctors had used cultures with live polio viruses to inoculate children. Could it be possible that living viruses were passed via toilets into the sewers and groundwater? After a number of years, after having consulted eight other doctors, she was finally diagnosed with Lyme disease. Suddenly, despite her high polio titer, a polio infection was not even considered a possibility. According to WHO statistics the dread disease that had lamed and maimed children had been successfully stamped out in the Western world thanks to the mass vaccination campaign. Falkenrath asked herself if possibly the celebrated victory over polio was in fact bogus? Had polio really been eradicated or had it ceased to exist by definition?

These thoughts left her no peace. Consulting the renowned Robert Koch Institute in Berlin she found out that in 1998 oral vaccination with living viruses had been stopped—a precautionary measure, she was told. It had turned out that quite a number of people had developed, twenty to thirty years after their initial oral vaccination, symptoms of polio, or as it is now called, post-polio syndrome (PPS). A whole generation of children in the Western world had received these immunizations in the 1950s and 1960s (in America at the end of the 1950s, in Europe in the beginning of the 1960s). Now, three to five decades later, a host of “new” diseases—Lyme, chronic fatigue, MS, fibromyalgia, and so on—suddenly made their debut. Most of the victims are forty to sixty years old, precisely the age group that was the subject of the oral vaccination campaign. Post-polio syndrome has symptoms similar to the new diseases: chronic fatigue, muscle pain, muscular atrophy, arthritic complaints, intolerance of cold temperatures, lack of energy, sleeplessness, breathing difficulty, and nervous ailments. When many of the Gulf War veterans developed similar symptoms, they were diagnosed as having the so-called Gulf War syndrome (GWS). These soldiers had received a cocktail of shots before being shipped off to the deserts of Arabia. Monika Falkenrath suspects that all these variously diagnosed diseases, whose symptoms are nearly identical, are related and have but one cause: the inability of the human immune system to deal with

the onslaught of chemicals, medications, and vaccinations, including the long-term effect of polio vaccine.

If Falkenrath's assumptions are correct, it would spell disaster for the pharmaceutical corporations. They would be confronted with endless lawsuits filing damage claims. In order to avoid this, they mounted a campaign to distract the public as well as the medical doctors by drawing attention to ever new disease complexes and syndromes, and by presenting an array of new pathogens, viruses, and bacteria. The research results are presented at professional advanced training seminars for medical specialists and in scientific journals, while lobbyists alarm the politicians. The so-called insider knowledge of a few specialists soon filters down, with the help of media and educational campaigns, to become "common knowledge." Thus it becomes possible that finally everyone finds their specific drawer that can be pulled for his or her specific ailment.

That those stealthy, blood-sucking, disease-bearing ticks are involved in Lyme disease has a convenient propagandistic effect in alarming the public.

There is no limit to presenting these arthropods in a hideous and terrible way. A fear stocking imagery is thus created, which alienates people from nature and, most of all, keeps them from thinking about what is really happening.

—FALKENRATH (2005:37)

Frau Falkenrath's argument comes, of course, dangerously close to conspiracy theory. But perhaps she is not all wrong with her ponderings. Heavy metal poisoning (caused by mercury, cadmium, lead, and so on) in food and water, medical and chemical synergisms, chemically polluted environment, and vaccination damage may very well contribute to the mounting incidence of these "new" multi-systemic diseases. Maybe it is these factors, and not simply this or that microorganism, that are responsible for our current state of ill health. Maybe these germs are not the cause of the disease, but a symptom indicating an ill-functioning immune system. Maybe the pathogenic microorganisms can be compared to flies in a dirty, ill-smelling room. When the room is cleaned up, they leave. They certainly do not cause the room to be filthy.

A Necessary Comment Regarding Polio

Personally, I can very well remember in the 1950s the pictures on the black-and-white television screen of children on crutches, children in iron lungs, and terrified parents. The fear of polio was omnipresent. What a relief when the mass vaccination program was inaugurated. Everyone in our school was glad to swallow the immunization. I was happy that it didn't prick and hurt like other vaccinations.

Dr. Jonas Salk became the children's savior and hero of the medical world with his oral vaccination. He had succeeded in cultivating polio viruses on chopped monkey kidneys. According to his own statement he had "processed" 17,000 monkeys in his own

laboratory, before he found the serum. What is less known even today is the fact that polio was at the time already on the retreat. To be precise, the rate of new infections had gone down by fifty-five percent in Great Britain and forty-seven percent in the U.S. (Engelbrecht and Köhnlein 2006:57).

Before the twentieth century polio was a harmless disease, which took its course without the feared paralysis. During the First World War tons of chlorbenzol were produced in chemical factories near New York City.²⁷ The poisonous chemical was the base for picric acid explosives, for poisonous gas for military use, and later for herbicides, bactericides, and insecticides in agriculture and in households. The time and place of the mass production of the poisonous substance coincides exactly with a polio epidemic that afflicted the population, especially children, in the surroundings of New York. In 1942 there was another polio epidemic, again after massive production of the chlorinated hydrocarbon, chlorbenzol, for eventual chemical warfare and as the main ingredient in DDT. After the Second World War, the government put the overproduced chemical on the market for pest control in agriculture. It was dusted and sprayed in barns against flies, swamps and water canals were saturated against malaria mosquitoes, and in households it was sprayed against flies, moths, cockroaches, and other bugs. The use of DDT peaked in the U.S. between 1950 and 1955. This coincides exactly with the peak of the poliomyelitis epidemic.

In those days DDT was considered a miracle “weapon,” part of a belief in inexorable progress that would lead to a golden future. When our family went on our weekly shopping spree to a nearby city, we closed all the doors and windows and sprayed the whole house down with DDT before we drove off. When we came back there was an awful chemical smell in the house but all the flies, spiders, and any other unfortunate bugs that might have been there were dead. Our neighbors “misted” their entire garden in clouds of DDT in order to keep pests off their fruit trees and vegetables. Nobody had any compunction about using DDT. Bedsheets and clothes were sprayed with it. Dogs, cats, and barn animals were sprayed for fleas or any parasites they might have until they looked like they were covered with powdered sugar. Even people were sprayed down for mosquitoes or possible lice.

Today evidence is mounting that mass poisoning with DDT was responsible for the polio epidemic in the Western world after the Second World War. Developing countries were spared at that time. The tragic part of the story is that it could have been avoided! In the middle of the 1940s the National Institutes for Health proved with animal experiments that DDT was obviously responsible for damage to the same part of the spinal cord that is also affected by polio (Engelbrecht 2006:63). In the early 1950s scientific studies in the U.S. and Switzerland showed that calves suffered from paralysis when DDT was present in the cow’s milk. Slowly but surely awareness grew about the degree of toxicity of DDT for birds and mammals, including humans. The dangerous liposoluble substance was slowly phased out and replaced as an insecticide by organophosphates. It is astounding that hardly anyone has followed out the connection between the polio epidemic and the massive use of DDT. To this day it is maintained that a virus is the cause of polio.

I well remember the excitement when Jonas Salk announced on April 12, 1955, that a vaccination against polio had been developed. Dr. Salk received the Congressional Medal of Honor from President Eisenhower himself and was officially celebrated as a “benefactor of mankind.” Victory was declared in the war against the polio epidemic. Soon, however, the enthusiasm dampened somewhat. The incidence of polio increased among vaccinated children. (As we saw, only after the DDT ban did the disease recede.)

Salk’s oral immunization for polio consisted of nothing other than liquefied monkey kidneys, which had been used as a substrata to grow and multiply the polio virus. The kidneys were finely minced and filtered. The filter was fine enough to filter out any bacteria but not viruses. Inadvertently the oral vaccine thus became contaminated with a monkey virus (simian vacuolating virus 40, SV40). Hundreds of millions of children, including ninety-eight million Americans, were inoculated between 1955 and 1963 with SV40-contaminated vaccine. The result was that some thirty million Americans suffer from latent persistent infections. The virus is also a potential cause of cancer (Buhner 2002:133).

CHAPTER FOUR

Fear of Nature

You will never find a book in which you can find more deep-seated wisdom than you can find on a green and flowering field. There you will see God's power, smell it and taste it.

—JAKOB BÖHME

Lyme is diagnosed clinically, as no currently available test, no matter the source or type, is definitive in ruling in or ruling out infection with these pathogens, or whether these infections are responsible for the patient's symptoms. The entire clinical picture must be taken into account, including a search for concurrent conditions and alternate diagnoses, and other reasons for some of the presenting complaints.

—JOSEPH J. BURRASCANO JR., MD (2000)

Though World War II was over, the hunger remained. Gaunt, hungry people from the cities scoured the countryside searching for something to eat, begging the peasants to accept some valuable silverware or linen cloth in trade for flour, eggs, and maybe, if lucky, a sausage. We fared little better, but at least we were befriended by the Diener family, who were living on a run-down farmstead, proud owners of a couple of cows, some chickens, and beets and rye in the fields. The train we took on Sundays to their village was usually overcrowded and very slow. But it was worth it. After the bartering, Frau Diener brought a griddle with one of her Saxon yeast cakes. Usually one couldn't tell at first glance whether it was apple or plum cake because a thick buzzing layer of barn flies covered it. With a swish of her hand she shooed the flies off and cut the cake. It tasted delicious. I can't remember anyone being bothered by the flies.

The children in those days were not sissies. Given the rough games they played, an occasional fight might leave one cut, scratched, and bleeding. No big deal, no running to mama. One simply grabbed some plantain leaves, chewed them, and plastered them on the scrapes and scratches—and that was it. That stopped the bleeding. And finding a tick stuck in one's skin was no problem either. One simply pried it off and forgot about it. When I came to the States in the 1950s it was not much different. We spent most of our time outdoors and loved every minute of it.

The Further Removed We Are from Nature, the More Threatening It Appears

Today things are different. For most people nature appears ever more ominous and

threatening. Most people worry about germs and bugs as though they are creatures from another planet. Scratches, slight cuts, and other minor injuries call for tetanus shots and antibiotics. Recently I was visiting Voralberg, Austria. When my host noticed a tick in his skin, he panicked, jumped into his car, and drove to the doctor for a penicillin shot.

One of the renowned experts of our times, Carl Djerassi—father of the birth-control pill, developer of new powerful insecticides, and pioneer in cortisone research—recently gave an interview for a German newspaper. He said he couldn't understand those who are enthusiastic about nature, who talk about going back to nature and who praise a natural lifestyle. In fact, he claimed, there is nothing more dangerous than nature! According to him, it is paramount to protect oneself from its onslaughts and to get it completely under control.

In the 1970s I taught anthropology at a small college in southern Oregon. One day in the middle of the lecture the secretary burst into my classroom. "Please come immediately, it's urgent," she yelled. "The head doctor at the hospital is on the phone!"

The doctor sounded anxious. "The ambulance brought an eight-year-old in on an emergency. He ate some red berries. We pumped his stomach. We're hoping you might know what kind of berries these might be so that we can take further measures."

I asked him to describe the berries. "Salmon colored, somewhat dry, mealy, about the size of blueberries," came the answer.

"Nothing to worry about. They are Manzanita berries—*Arctostaphylos manzanita*—common in this neck of the woods. One of the favorite foods of the Indians that used to roam these parts." After I put down the phone, I thought about the poor youngster and the trauma he had gone through: the worried parents, the ride with siren and red lights flashing to the hospital, the pumping of the stomach! How will he ever regain a normal relaxed relationship to the natural environment? It will always remain as something to be on guard against.

It's not much different in modern Europe. Hardly anyone dares eat the tasty wild raspberries, blueberries, blackberries, or cranberries that grow in the woods. Once while taking a walk in the forest with a woman and her daughter, the little girl reached happily for some ripe, red wild strawberries growing along the path. "Stop immediately!" yelled the mother in a panicky, high-pitched voice. "Foxes transmit tapeworms!"

The girl's tears did not budge her mother. She had to throw the berries away. So much for primordial trust, I thought to myself. That little girl is programmed for a disturbed relationship to nature. Theoretically, the foxes can transmit the tapeworm eggs to the strawberries, blueberries, or raspberries while foraging in a wild berry patch. All an innocent victim has to do is eat one of the berries that the fox has coughed, sneezed, or drooled upon to become infected. Statistically, however, the possibility of an airplane falling on one's head is more probable than getting infested by fox tapeworm (*echinococcosis* or hydatid cyst). In all of Europe, with its 700 million people, twenty-eight people per year are afflicted with echinococcosis. And not one single case could even be proven to have been transmitted by wild plants or berries.

The forest, in which our forebears perceived the voice of the gods when the wind

swept through the treetops and where they found inspiration and visions, has become alien to us. Hardly anyone gathers berries and mushrooms anymore. Europeans worry about residual radiation in the mushrooms going back to the Chernobyl disaster. Or they fear the fox, mad with rabies, lurking in the underbrush. The recent hysteria about the so-called bird flu pandemic (avian influenza) has not helped matters. Some 200 people, mainly in East Asia, have died of this “pandemic” and some 350 cases have been diagnosed worldwide as bird flu since its discovery in 2003. But what is that, given a world population of more than 6 billion? One is not even sure if the cases diagnosed were really bird flu or if they were due to chemical poisoning or some other disease. At any rate, since the advent of bird flu, people became wearier of nature. Alarmed by mass media, they bravely swallowed prophylactic antiviral drugs and avoided contact with birds wherever they could. No one picked up pretty feathers from the ground, and many people got rid of their cats, giving them to animal shelters or even putting them to sleep, since isn’t it true that cats eat birds and birds might be infected with the virus H5N1? But to this day there is no real solid empirical proof for the existence of this mysterious virus or its supposed infectious properties (Engelbrecht and Köhnlein 2006:190). It is more likely the unnatural crowded conditions involved in the industrial production of chickens and ducks that kills these animals or makes them sick. A further factor in the death of birds, including geese and wild fowl, is the massive use of poisons strewn to combat rodents. And then, of course, birds also die a natural death. According to biologists, the dead swans and wild ducks found on the Island of Rügen in the Baltic Sea were not due to the bird flu virus, as claimed by a massive mass media campaign. As a matter of fact, the mortality rate of these fowl was not higher than in previous years (Engelbrecht and Köhnlein 2006:198).

Even plants are ever more perceived as a threat. Noxious invasive plants (neophytes)—give them an inch and they’ll take a mile—are suffocating the local flora and causing illness. European fleabane (*Erigeron acer*), Queen Anne’s lace (*Daucus carota*, the wild carrot), Canada thistle (*Cirsium arvense*), Russian knapweed (*Centaurea repens*), and others infest productive croplands. The “damned Klamath weed” (*Hypericum perforatum*, St. John’s wort) is taking over Oregon’s pastures, causing photodermatitis among livestock. Ragweed (*Ambrosia artemisiifolia*), goldenrods (*Solidago* spp.), and other rogue plants are deemed responsible for hay fever. The U.S. and Europe are suffering from an invasion of Indian jewelweed (*Impatiens glandulifera*, policeman’s helmet), the Japanese knotweed (*Fallopia japonica*), and the dreaded giant hogweed (*Heracleum mantegazzianum*). The giant hogweed is phototoxic, that is, it causes severe skin rashes when one touches it while the sun shines. The rock group Genesis even dedicated a song to this botanical creature, immune to herbicidal battering: “Turn and run! Nothing can stop them. Around every river and canal their power is growing. Stamp them out!”²⁸ Government agencies and mass media call for the eradication of these plants with flamethrowers and herbicides.

RAGWEED (*Ambrosia artemisiifolia*)

The giant ragweed is a native of North America. When I was a youngster in rural northern Ohio it didn't seem to bother farmers more than any other weed. Nobody was worried about it. We boys loved it, for its stalks made excellent javelins or spears, good for playing warriors, knights, or Indians. Things are different now; health officials are on the warpath against the plant, claiming its pollen is the main cause of hay fever. For healthy people the ragweed poses no problem. We live in a time, however, in which many people are suffering from immune system dysfunctions and where autoimmune sicknesses are common. Most likely, mass immunization and the widespread and often unnecessary use of antibiotics are responsible for a disruption of the human's proper immune response. Being overprotected, the immune system no longer knows how to correctly evaluate an impending stimulus such as pollen breathed in. It is then likely to overreact, causing a bout of severe allergic coryza.



Ragweed

In Western Europe ragweed has the status of a neophyte. It doesn't do well in the moist Atlantic climate, but in Eastern Europe, where a continental climate with cold winters and hot summers dominates, it thrives. When I first saw the plant in Hungary, I greeted it as an old friend. The Hungarians themselves seemed to have no problem with the weed. The increased appearance of ragweed in Western Europe seems to be due to the gradual climate change.

For American natives ragweed was a healing plant. The woodland Indians used it externally for infections, insect stings, and hives, and internally to prevent "blood poisoning" and bloody stools (Moerman 1999:66). The prairie Indians boiled it and used the tea for stomach cramps and blood in the stool. For skin problems, swellings, and boils, the boiled leaves were used as a poultice.



Nearly every year the mass media finds some aggressive or dangerous weed, animal, or microorganism to bedevil. Before ragweed, it was the Canada thistle, Russian knapweed, or St. John's wort that came into the crossfire. Are these waves of hostility toward nature just the result of mindless contagion, or is there design behind it, sanctioned by powerful interests? At any rate, the result of such created phobias is that people get cut off from their roots, from their sense of security and embedding in their natural surroundings. People alienated from nature are easier to control and manipulate. They find their sense of security in institutions—insurance, retirement pensions, police, welfare, hospitals, schools, and military power—instead of being deeply rooted in a natural environment and in family bonds that nourish and sustain them physically and emotionally.

The more distant nature becomes, the more it is perceived as threatening and dangerous. This is especially true of the wilderness. Wild, untamed, and beyond our control, the wilderness provides a perfect surface for the projection of all kinds of unconscious fears. Whatever seems to defy human control scares people. Trust is good, but control is better! Didn't Lenin, the would-be benefactor of humanity, say that? Rabid foxes, echinococcosis, mushrooms contaminated by radiation, snakes, poison ivy, venomous insects, and of all kinds of other evil lurk in the dark forest, in the wilds. And now, added to the list are Lyme disease-infested ticks. How much safer one is in the city, within one's four walls cozily enveloped in the virtual realities of computer and media entertainment!

We have forgotten John Muir's wise words: "In God's wildness lies the hope of the world—the great fresh, unblighted, unredeemed wilderness!" Never before in history have human beings been so afraid of nature. And never have they been as far removed from it as today. In light of this, could it be that our reaction to forest ticks and borrelia microorganisms might be exaggerated? Are we perhaps reacting hysterically? Could it

be that ticks and bacteria just offer us a focus for diffuse, undefined, and unconscious fears that plague us in these times? Could it be that we are once again making a mountain out of a molehill?

Instead of fearing them, should we not, first of all, greet the new wild plants or other organisms suddenly appearing and get to know them? Maybe they have something to tell us! Maybe the neophyte is the healing plant we need at this time. And maybe the tick and the spirochete bear a message of Gaia, of Mother Earth.

Fashionable Diseases

The subject of Lyme disease is “in vogue.” There are some 2,510,000 entries coursing through the Internet (2009) regarding the new infectious disease. It is a popular chat room subject, where anyone can tell his or her own personal story regarding Lyme disease. Countless serious, but also pseudo-, scientific books and articles have been published on the subject since the disease first appeared in the 1980s. Doctors diagnose the disease ever more often. Some doctors pride themselves about belonging to an “elite” club of experts on Lyme disease.²⁹ In contrast to normal non-expert doctors on borreliosis, they believe they have specialist’s knowledge regarding the new disease and are able to see beyond the many symptoms to its real underlying cause. At the same time the range of therapeutic possibilities widens and ever more cures vie for their place on the market.

Is it possible that Lyme disease is a fad? It has happened before that certain not clearly defined ailments advanced to become “fashionable.” Illnesses are not only biological processes but also a cultural occurrence. In medical anthropology it is often noted that disorders that are recognized as serious diseases in one culture are often practically ignored in another. In our culture there are ailments that achieve real cult status, and therapy becomes a necessity—obesity, menopause, hyperactive children, addiction to video games, high cholesterol, to name a few.

Throughout medical history there have been many fashionable diseases and fashionable therapies. In the Middle Ages it was “demon possession” or “bad fluids,” in the 1800s flu and intestinal sluggishness were dominant, in the 1900s it was hypochondria, hysteria, and “neurasthenia,” as a euphemism for the general weakness of female nerves. In the early 1900s until the First World War tuberculosis (consumption) was regarded as the ailment of especially sensitive, asthenic persons. The condition was romanticized by artists such as Thomas Mann, whose novel *Magic Mountain* is dedicated to this theme.

After the First World War and especially in America, “iron deficiency anemia” was frequently diagnosed. If a pale, thin patient dragged into the doctor’s office and complained about chronic fatigue, lack of appetite, dizziness, and general lack of “getup and go,” he or she was diagnosed as suffering from this iron deficiency, if no other clinical disorder was found. It was assumed that menstruating women and masturbating youths were especially in danger of losing iron through their loss of body fluids.

Pregnant women needed lots of iron because their fetuses, like little vampires, were sucking up their life's energy. As the proper treatment for such cases, medical doctors prescribed iron tablets and elixirs and lots of green spinach in the diet. The driving force behind this medical fashion were the interests of big agro-business, which had just invested millions of dollars in developing irrigated-field agriculture and canned food factories in the Southwest and California. The comic figure Popeye, a tough, ornery little fellow, with whom children could easily identify, was created. When the mean bully Bluto gave him a hard time, the pipsqueak sailor became stronger by squeezing open a can of spinach and gulping its contents. In this way children were encouraged to eat canned spinach. Due to the Popeye campaign, the vegetable industry registered a thirty-three-percent increase in spinach consumption in the U.S. in the 1930s. At the same time researchers were commissioned to prove scientifically how healthy spinach is. It was not long until research results appeared, proving that laboratory rats became healthier after eating canned spinach. In a research report, it was claimed that spinach contains more iron than any other vegetable. The exaggerated claim was, however, due to a typing mistake. Inadvertently the comma was moved by a space to the right, which made the iron content ten times as much! In reality, spinach contains hardly any available iron for the body, because a high content in oxalic acid blocks its absorption (Storl 2005c:198).



Popeye the sailor man, from an ad for canned spinach

In the 1950s “focal infection” was fashionable in the medical scene. Lurking somewhere in the body, usually under the teeth or in the tonsils, a hidden persistent infection was flooding the organism with bacteria and bacterial toxins. This sepsis caused people to be tired, unmotivated, pale, discontented, and to have cold hands and feet. As a preventive measure, tonsils were removed, teeth were pulled, and penicillin was given.

When I went to high school mononucleosis was the magic word. For teenagers it was a source of anxiety, since the disease was supposedly passed on by kissing.

Mononucleosis, or glandular fever, an infectious disease caused by the Epstein-Barr virus, makes people despondent and chronically tired. Under the new name chronic fatigue syndrome (CFS), it is still a popular diagnosis. For doctors it is a safe diagnosis, since the virus is present in ninety percent of the population (Blech 2000:27).

In the 1980s and 1990s a regular medical hysteria broke out about cholesterol (Langbein et al. 2004:651). This essential constituent of cells and body fluids had been targeted as the villain in heart disease and circulatory disorders and made responsible for the main cause of death in the Western world. To avoid hardening of the arteries, strokes, and heart failure, older people are told to avoid eggs and butter in favor of hydrogenated oils, and are routinely given blood-fat-reducing medication (lipid-lowering agents) to maintain a low cholesterol level—a billion-dollar industry benefiting pharmaceutical companies as well as the margarine business. Many of these anti-cholesterol drugs have unpleasant side effects, from headaches and sleeplessness to muscle and joint pain and even on to liver and kidney damage (Langbein et al. 2004:654). They lower not only the level of the “bad” LDL cholesterol (LDL = low-density lipoprotein) but also of the “good” HDL cholesterol (HDL = high-density lipoprotein) and, at the same time, they flush out fat-soluble vitamins.

Newer studies show that there is actually no connection between cholesterol and heart attacks (Pollmer and Warmuth 2003:83). This is confirmed by anthropological comparisons: Eskimos traditionally eat mainly fatty meats, but their cholesterol levels are unexpectedly low. East African herders eat great amounts of saturated animal fats but they do not suffer from heart and circulatory diseases—as long as they stick to the traditional diet.

What is generally forgotten is that the body needs cholesterol and cannot function without it. The liver and adrenal cortex produce it when the level is low. This substance—a fat-soluble, crystalline, steroid alcohol—is vitally necessary to stabilize cell membranes. It keeps red blood cells from dissolving, is vital for the creation of new immune cells, holds the insulation layer (myelin sheaths) of nerve cells together, and is an important ingredient in mother’s milk. Important hormones are also built from cholesterol, such as sex and stress hormones. It also synthesizes vitamin D needed for strong bones, bile acid (cholic acid) for digesting fats and for transporting lipoproteins in the blood (Pollmer and Warmuth 2003:69). No wonder that blubber and fatty meats are considered the most nourishing of foods among hunters and gatherers and most other traditional people (Pollan 2008:98). All this seems to indicate that maybe it is not the cholesterol messing up our heart and circulation, but the constant stress inherent in modern consumer society, which forces us to run like hamsters in the wheel and robs us of our organic rhythms (Storl 2009:80).

There are many other examples of popular diseases and fashionable diagnoses we could consider. Recently discovered Lyme disease could fit well into this category: It is extremely difficult to diagnose. It is assumed that only experts specialized in Lyme disease can diagnose it correctly. The tests are not very reliable and their results are often false or contradictory. The spirochetes can disguise themselves, so that they are difficult to detect for the tester as well as for the immune system. Borreliosis (Lyme

disease) can manifest a great variety of symptoms that are characteristic of other illnesses.

Maybe, to a certain degree, Lyme disease can be seen as a “fashionable” disease, as an expression of the Zeitgeist. If that is the case, it will share the fate of all fashions, that is, it will eventually be forgotten.

CHAPTER FIVE

Natural Treatment

Antibiotics have been a disappointment as a singular medicine for chronic Lyme disease. Antibiotics will not help us against the plagues that are still to come.

—DIETER KLINGHARDT, MD, specialist on Lyme disease (2005)

Search for the spark that ignites your own healing power!

—PARACELSUS

*Water does it for sure,
But air does more
And most of all the sun heals.*

—“SUN DOCTOR” ARNOLD RIKLI (1855)

For me, Lyme disease was very real; it was not a fashionable disease, nor was it imagined. I had all the symptoms. The red ring (*Erythema*) spread over my stomach and lower body, getting ever bigger. I felt sick like one does with the flu. Sleeplessness and problems with my eyesight made life miserable. To alleviate the aching head, I started wearing a wool cap—something I usually don’t like doing. After a while, I felt pains in the joints, especially the knees. They seemed to jump from one knee joint to the other, making it difficult to climb stairs. I didn’t know much at that time about Lyme disease. I didn’t know, for example, that if one takes the antibiotic doxycycline (or amoxycillin) as soon as one notices the red ring there is—at least theoretically—a good chance of eliminating the *borrelia spirochetes*.

As far as I was concerned, taking antibiotics was out of the question. I had had a bad experience with antibiotics years before, in India when I had contracted dengue fever. At the time I had little confidence that the cow-dung pills, herbs, and mantras of the native Indian medicine could be effective. I insisted on being treated with Western medicine, which I considered to be scientifically objective and hence superior. A doctor was found who had been trained in Britain and who consequently prescribed chloramphenicol. I didn’t know then that this broad-spectrum antibiotic had nasty side effects, such as bone marrow toxicity and the risk of leukemia, or that it was no longer legal in the “developed world” but had been dumped on the Third World market. But that was not the problem as far as I was concerned. The problem was that I got a superinfection, which took me years to heal (Storl 2003:211).

DOXYCYCLINE AND OTHER ANTIBIOTICS

Doxycycline is a broad-spectrum antibiotic. Like other members of the tetracycline group of antibiotics, it has a bacteriostatic effect. It does not assault the cell walls of the bacteria while they are dividing, nor does it kill the bacteria right from the start. Instead, it blocks the synthesis of bacterial protein so that the bacteria cannot multiply. Doxycycline permeates the tissue and stays in the body for a long time (Maxen, et al. 2000:97). Most experts agree that a two- to three-week course is not long enough in the case of Lyme disease, and that one must take it for at least two months. The therapy should begin as soon as one notices the red ring. A dosage of 200–600 mg a day is what has shown to be effective.

As with other antibiotics, the side effects of a tetracycline cure are diarrhea and fungal affection (itching of the rectum or vagina)—a sign that symbiotic microbe flora are also being affected. Other possible side effects are fever, skin irritation, oversensitivity to sunlight (sunburn), stomach ache, extreme tiredness, dark-colored urine, and loss of appetite. These side effects are usually blamed on the borrelia, however. Taken over a long period of time, as is recommended for tick-borne diseases, doxycycline can discolor the teeth. Tooth enamel can be damaged and the teeth become more susceptible to tooth decay. For these reasons, children under twelve years of age should not be treated with this antibiotic (Maxen et al. 2000:98). Patients who have diabetes get a slightly lower sugar level (hypoglycemia) as a result of tetracycline treatment. Heart patients are more likely to suffer the toxic effect of their digitalis medication when at the same time taking doxycycline or another tetracycline antibiotic. In this case, the physician should carefully monitor the digoxin level in the patient's blood (Maxen, et al. 2000:99). Furthermore, the drug can cause damage to the bones of nursing children if the mother takes it; if the mother takes it during pregnancy the dental development of the unborn can be impaired.



After that experience, it is understandable that I was reserved about using antibiotics for my Lyme affliction. As the old proverb says, “Once bitten, twice shy!” Instead, I chose to trust my intuition. Anyway, antibiotics have an immune suppressive effect. I was convinced that the best strategy was to do everything possible to strengthen the immune system response. Here are the key ingredients in my self-cure:

- Plenty of sleep

- Fresh air and sunshine
- Exercise
- Healthy eating habits
- Immune-system-strengthening herbs
- Joy of life and a sense of purpose
- Setting some time aside for myself

Let's look at those important elements one at a time.

Plenty of Sleep

Sleep is the “time of the plant” for human beings, when nourishment and growing occur. Even the soul, disturbed by the events of the day, is reborn in restoring sleep.

—CHRISTOPH WILHELM HUFELAND, *Lebensregeln* (1836)³⁰

Sleep restores, rebuilds, and lets us restore life energy. For that reason people who are convalescing and those who have had a difficult time physically or even psychologically usually need a lot of sleep. Children need more sleep than adults as their organs are still developing. Small children and babies need very much sleep and fetuses in the womb need the most sleep of all. Sleep is pure refreshment. Sleep deprivation is one of the severest forms of systematic torture.

During the state of being awake, we are constantly bombarded with sensory input and involved in mental processes. This exhausts us and wears us out, much like a flame consuming a candle's wax. If we do not manage to sort out all our impressions and experiences they can overwhelm us, and even lead to illness. According to Paracelsus, what we can't mentally digest becomes toxic for body and soul. When we sleep our soul turns away from the outer world, drifts into deep inwardness, falls into the dream world and into the world of spirit. Thus it goes back to its origin and finds restoration. During sleep the inner world becomes the environment of the soul. Like a baby sleeping in its mother's lap, we are during this time protected from outer stimuli and can restore. This restoring is scientifically measurable by the gradual muscular relaxation, the lowering of body temperature, the slowing of brain wave activity, the slowing of the breathing rate, the diminishing of the heartbeat, changes in glandular activity, and so on. In this vegetative state exhausted and damaged tissue regenerates. In the words of Rudolf Steiner: “During the night, during sleep the angels work on restoring the etheric body of the human being.”

A person sinks into a plant-like state of being while sleeping. Like a plant passively absorbing nourishing sunlight and life energy from the earth, a sleeping person absorbs the spiritual light of the archetypes deep in the soul. The archetypal image of being whole and healthy shines onto him or her, restoring and healing what is worn out or gone awry. From the depth of the innermost world, stars of wisdom shine upon him or

her. A Russian proverb brings it to expression: The morning (after a good sleep) is wiser than the evening. Not only does the body restore but the soul finds necessary instruction and intuitive advice.

The rhythm of sleeping and waking is naturally in harmony with cosmic rhythms of day and night, sun cycles, and earth cycles. Even though we have emancipated ourselves to a degree from natural rhythms and have gained a bit of leeway, through the use of fire and, nowadays, electricity, it is still advisable to sleep at night and wake in the daytime. This is especially true for sick people. My grandmother used to say, “The best sleep is before midnight!” Even the siesta or afternoon nap is a natural part of this organic rhythm; it marks the time that the sun has crossed the zenith.

Healing means bringing oneself again and again into harmony with the great rhythm of the macrocosm. The sea’s tides are an expression of this cosmic rhythm and that is surely one of the reasons that convalescing patients are often sent to the sea.

Fresh Air and Sunshine

The fresh air, dear human, is your element; you cannot live separated from it. For that reason, venture daily into Nature or, even better, into the mountain’s highs.

—CHRISTIAN WILHELM HUFELAND, *Lebensregeln*

I call the sun the ordering hand of Life.

—HANS PETER DÜRR, physicist at the Max Planck Institute, Munich

The sun determines the entire course of nature with its yearly and daily rhythms. It also determines and orders our biological and cultural life. Daily and yearly rituals, moments of worship or prayer, mealtimes, and festivals are basically all determined by the pulse beat of the sun.

Sunlight is the ordering hand of nature. It beckons plants to grow upright against the force of gravity, and gives the leaves and blossoms their harmonious, geometric forms. Just look at potatoes in a cellar: the pale shoots grow amorphously without defined form until they reach light; they then immediately straighten and begin to grow upright, turn green, and take on the typical geometry of their kind. Most animals live in accord with the daily and yearly rhythm of the sun and need its light as nourishment. Rabbits in a cage that never see direct sunlight usually can’t survive.

The formative force of the sun can only be described as godly. In all traditional cultures the sun was seen as a powerful god. The Celts personified the sun in the beautiful radiating god *Bhel* or *Belenos*; for the Scandinavians it was *Baldur*. He is the companion and lover of the flower and plant goddess, the daughter of Mother Earth, wooing her out of the depth of the earth each year in the spring. His love lets her grow in green splendor; she opens her blossoms to his fructifying rays, so that she may bear fruit. It is also this god who, with his warmth and light, awakens the healing powers in

the herbs. It is this light that gives form and order to the unformed matter, to the so-called *Chaos*, as the Greeks called it (Storl 2004b:21). The medieval Christians equated the sun with the savior; he is the spiritual sun that drives away the darkness. Therefore all healing herbs were gathered in his name. For the christianized Celtic and Germanic people, Christ took the place of Cernunnos, the solar stag. For the peasants of the Megalithic cultures the sun was feminine; she was the loving mother of all creation.

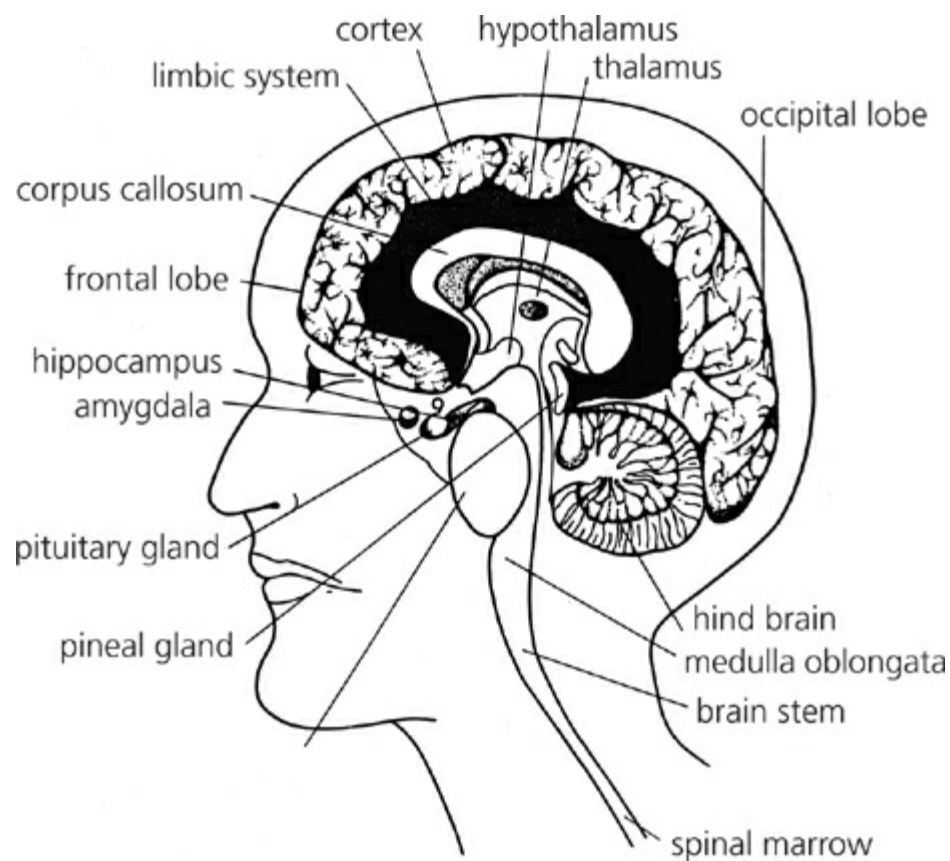


Apollo, sun god of the ancient Greeks

Sunlight is healing. Our bodies need direct sunlight in its entire spectrum and not filtered by sunglasses, windows, or smog. Entering through the eyes, “the window of the soul,” the light affects the tiny master gland, the hypothalamus. The hypothalamus, often referred to as the brain of the brain, is the nexus where the cerebral cortex and the old reptilian brain meet and interact. The cerebral cortex has to do with learned behavior (culture, time, ego) and sense data; the reptilian brain rules over reflexes and instincts (aggression, sex drive, eating, control of territory). The hypothalamus thus connects inside and outside, and coordinates mental and physical reactions. It regulates body temperature and blood pressure, produces hunger and thirst sensations, governs lust, and produces sleeping-waking rhythms and other functions of the vegetative nervous system (sympathetic and parasympathetic nervous system). It also gives instructions to the pituitary gland, which rules over endocrine glands. The hypothalamus is responsible for maintaining serotonin—the so-called “happiness hormone”—and for hormones such as oxytocin, which is responsible for sexual euphoria.

The impulses the retina receives are transmitted via the pituitary to the pineal gland. As it gets ever darker with nightfall, the pineal gland releases melatonin, which causes us to become sleepy. Around 3 AM—by the way, the time at which most people die—the

melatonin concentration is greatest. Sunshine curbs melatonin buildup. In the winter, when the days are short and the nights are long, there is often an overproduction of melatonin, which translates as depressions, excessive tiredness, and disturbed sleep. During such dismal, dark days fresh air and daylight in the outdoors are the best remedies one can find. St. John's wort (*Hypericum perforatum*) tea is a good cure for such a melancholy state of mind, as it conveys indirectly the light of the sun. The herb flowers in midsummer and transforms the sun's energy into red oil, hypericin, which it stores in the blossoms. Hypericin increases the dopamine levels in the brain, possibly decreasing the stress hormones norepinephrine and epinephrine, which makes us feel good. In short, the sun gives us joy of life.



The human brain, including the hypothalamus and limbic system

Sun benefits us not only through the eyes, but also by acting directly on the skin. Exposure to the sun activates the production of vitamin D, which is important for the uptake of the calcium our bones and teeth need. Sunshine thus helps prevent broken bones, osteoporosis, tuberculosis, and rickets. The ultraviolet rays from daylight are antibacterial, antiviral, and antifungal, and thus contribute to a healthy skin. Sunlight increases resistance, stimulates tissue hormones, and activates lymphocytes. Tests have shown that people who work in the fresh air are healthwise less endangered than office workers. According to health expert Franz Konz: "Sunshine lowers the cholesterol level, blood pressure and also the level of blood sugar. It increases sexual hormones and resistance against infections" (Konz 2000:726). Konz advises people to go out into nature as often as they can and, if possible, as naked as God made Adam and Eve.

(Artificial light in a solarium is no substitute for real sunlight.) Recently, however, fears have been stoked that too much sun exposure could cause skin cancer and people are warned about too much sun exposure. That is, of course, a possibility, but only if people have an already damaged immune system due to bad living and eating habits, or if they sunbathe for hours on end during their vacation after having spent all year inside. One should slowly expose oneself to sunlight and avoid sunburn. Sunblock creams do not necessarily do any good. Often the chemicals in protective sun lotions are more harmful than the sun exposure itself.

Disease can be defined as disorder—disorder in bodily functions, and loss of life's rhythmic functions. As modern physicists say, sunlight is the energy that brings order into nature. We can take up this ordering power direct with our skin and eyes; we can also take it up through our food, especially if we eat sun-grown, organic food. Indirectly we can even take up some of its beneficial effects by sleeping on naturally grown materials such as straw mats. As Swiss doctor Jörg Reinhard writes, "What is straw but golden sunlight, materialized golden sunrays?" (Reinhard 1993:111).

Exercise

Exercise your body daily, be it at work or in leisure. Too much repose turns you into a sump, dull in body and dull in mind.

—CHRISTOPH WILHELM HUFELAND, *Lebensregeln*

Movement is good for the body. Walking, running, or swimming—these aerobic activities generally strengthen muscles and loosen their tightness, calm the nerves, and strengthen the heart and lungs. Especially the lymph system (spleen, tonsils, lymph channels and nodes), which is the basis of our immune system, benefits from physical activity. Unlike the circulatory system with the heart, the lymph system doesn't have its own "pump"; it is the movement of our body that keeps lymph fluids circulating. Activities that make the body pour out sweat—chopping wood, hiking, and other hard work outdoors—are greatly helpful with Lyme disease.

A major organ of the lymph system is the thymus gland, located behind the rib cage. It is the brain of the defense system. Some naturopaths and others believe that striking the breast with our fists, like gorillas do, activates this gland. It is interesting to note that in many healing traditions pouches filled with healing herbs are often worn as amulets over the thymus. Perhaps, there is an energetic transfer from the amulet to this important gland. Old age, severe stress, radiation, and chemotherapy cause the thymus to shrink. In the 1950s before its function as a key center of the defense system was understood, the thymus was considered a useless remnant of evolution. Children, whose thymus gland is bigger than that of adults, were sometimes diagnosed with a "thymus hypertrophy," and the recommended therapy was to radiate the gland in order to shrink it. Tonsils, now recognized as part of the detoxifying lymphatic system, were systematically cut out surgically by doctors of those days in order to prevent tonsillitis.

Tonsillectomies were performed on Fridays—the ice cream truck was usually parked near the hospital, because ice cream was the only thing the children could swallow after the operation—and on Mondays they were back in school. Besides the tonsils and the thymus, the spleen, lymph nodes, and the large intestine are also linked to the lymph system.

LYMPH

The clear, slightly yellow lymph fluid is what one sees oozing from cuts after bleeding stops. In the body it surrounds every cell. It absorbs the waste products of metabolism—dead microorganisms, damaged cells, and bacterial toxins that can otherwise cause inflammatory reactions anywhere in the body—from the blood and the intestines and transports them to be filtered by the spleen and the lymph nodes. Lymph fluid contains **lymphocytes**, immune cells that find, recognize, and neutralize **antigens** (infecting germs and alien proteins that bring about an antibody reaction). Lymphocytes have an immunological memory—they remember unfriendly invaders. They are able to distinguish more than 100 million antigens. Various kinds of lymphocytes can be distinguished.

B lymphocytes (bursa-dependent) are white blood cells that build antibodies and carry immunoglobulin on their outer surface. They also function as immunological memory cells. They recognize their opponents like a key “recognizes” the lock it can unlock.

T lymphocytes (thymus-dependent) are defensive cells that develop in bone marrow and are “trained” for their task in the thymus gland. **Helper T cells** recognize viral or bacterial antigens, and **killer T Cells** proceed to destroy them. They also ingest and neutralize infected or malignant cells, such as the cancer cells that develop spontaneously from time to time in every living organism. Usually these defensive reactions are stopped by the suppressor T cells.

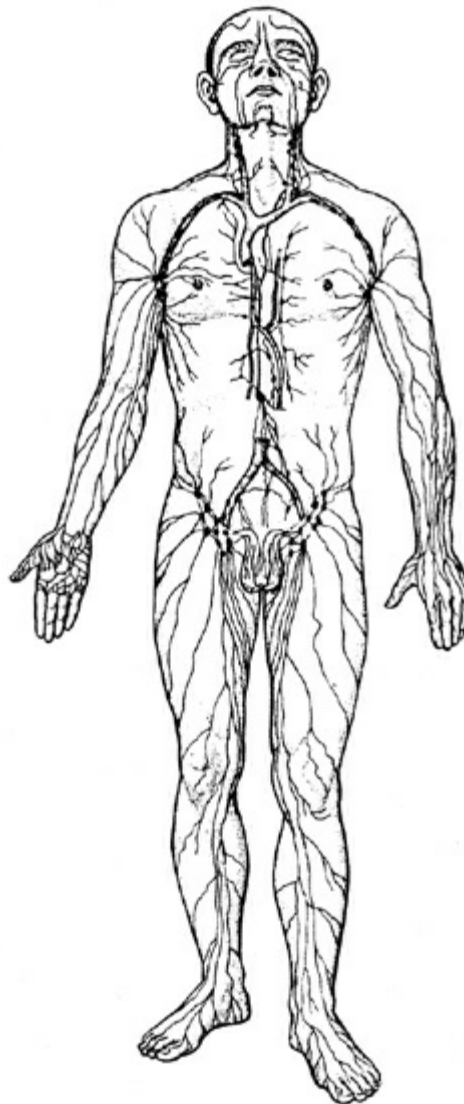
It is possible that killer T cells sometimes overreact and fail to distinguish between endogenous and alien organic matter, which causes autoimmune reactions such as rheumatoid arthritis, in which the endogenous immune system mistakenly assaults cartilage and bones, or multiple sclerosis, in which the nerve sheaths are destroyed by endogenous defensive cells. Lyme disease often disguises itself as an autoimmune sickness.

It is also possible that a disturbed immune system overreacts to harmless substances in food or in the air (such as pollen), or to simple insect bites, causing allergic reactions like hay fever, chronic sniffles, urticaria, atopic dermatitis, and skin rashes (eczema), as well as all sorts of food allergies. Autoimmune diseases

and allergies are on the increase. The reasons vary from unnatural lifestyle, electric smog, stress, traces of noxious and/or artificial substances in foods and environment, but also antibiotics and inoculations, which render the immune system “unemployed.”

T helper lymphocytes control antibody synthesis as well as inflammatory reactions, such as the secretion of cytokines, which regulate the intensity and duration of the immune defense.

So-called **T suppressive cells** stop the immune defense.



The lymph channels

For a stressed immune system and for lymphatic disturbances, such as during a bout with Lyme disease, a number of lymph-cleansing plants (herbal lymphatics) can be used. The most important cleansing plants are mistletoe (*Viscum album*), common figwort

(*Scrophularia nodosa*), cleavers (*Galium aparine*), lady's bedstraw (*Galium verum*), golden saxifrage (*Chrysosplenium*), mountain ash or rowan tree (*Sorbus aucuparia*), or the American mountain ash (*Sorbus americana*). (See the Appendix for lymph-cleansing plants.) According to British herbalist Thomas Bartram, teas made with red clover, the chaste tree, or Monk's pepper (*Vitex agnus-castus*), bladderwrack (*Fucus vesiculosus*), common seaweed along the Atlantic coast, violet leaves, and marigold petals are also of help (Bartram 2001:279).

Glands in the area of the armpits are an important center of the lymph system. Most modern people douse this area with large quantities of chemical deodorants and antiperspirants. In the Middle Ages witches' salves were often smeared into the armpits. The glands in that area absorb and transport readily any active ingredients of salves or chemicals via lymphatic channels. Thus the chemicals of today's deodorants and antiperspirants travel through the body combining with proteins, forming metabolites or molecular complexes that can plug up and aggravate the lymph channels. Wouldn't normal warm water and soap do the same for body odors? Or some mild, body-friendly natural deodorant? For anyone who has problems with the lymph system or who suffers from Lyme, makeup, hairspray and gels, and underarm chemicals should be chosen very carefully or even omitted. At the very least, organic alternatives should be sought.

Healthy Eating Habits

Let your meals be simple, hearty and tasty. Don't eat too much, don't eat too fast, and never eat to the point where you feel stuffed. Thus you'll maintain healthy blood.

—CHRISTOPH WILHELM HUFELAND, *Lebensregeln*

Eating should be enjoyable. It should not just fill the stomach but it should also be a "feast for the eyes and the soul." This implies that the plates are nicely decorated, the table is clean and proper, perhaps with a small bouquet of flowers and maybe even a candle. These little pleasantries make a difference. Eating is not just a matter of filling the tank of the body machine with fuel! A meal creates a social and emotional bond. It also creates a cosmic bond because food implies a sacrifice on the part of plants and animals. "Brahman [God] is food, and food is Brahman," the *Taittiriya Upanishad* reminds us. "With every morsel of food we consume, we are eating God. Only he who realizes this is eating in the right way." Consecrating food and eating it with consciousness should be part of the therapeutic approach.

Of course, there are those morose nutritional experts who prescribe rigid dietary plans that take all of the joy out of eating, but that is not what is meant here. I once lived in an alternative community that strictly adhered to calorie charts and numerous food taboos. Still, indigestion and sluggish bowels made our lives miserable. Once, the old peasant-philosopher, Arthur Hermes, came by on a visit. He had to laugh when he commented, "Thank heavens we still have instincts to tell us whether something tastes

good or not. Sometimes the belly is smarter than the brain.”

This is also true for a Lyme-disease diet. Foods that make or keep one well need not be unpleasant to eat. Of course, well-balanced meals and food from organic sources are preferred. Fast foods, TV dinners, and microwaved foods from the freezer are not exactly conducive to restoring health. Food consists not just of calories, minerals, and vitamins, but it is first of all “information” for the body and the soul. Food produced in a loveless way and pumped full of chemicals informs our body that all is not well in nature. The information of the pain and sadness of animals raised in feedlots and under inhumane conditions is passed to us in the meat products; such information makes us sick.

By contrast, wholesome natural foods pass on “healing” information. Fritz Albert Popp is a bio-physician who developed a method for measuring the low-level luminescence or “photons” emitted by living cells and organic matter. Photons are basically stored units of sunlight. In Popp’s view, the sun energy, as captured by plants and given off by foodstuffs, is most important. It has a vitalizing and ordering effect on the functioning of organisms. The scientist is convinced that “when we eat healthy foods, we bring cosmic order into our lives” (Popp 1999). Wild plants and wild herbs are full of light energy and nonfalsified, pristine information. None of their vitality has been cultivated out. If we gather and eat them when they are in season, in harmony with sun and moon rhythms, they help our organisms to get back into harmony with greater nature.

All edible wild plants can also be seen as healing plants. Many native cultures do not make a categorical distinction between healing plants and food plants, as all of them have an effect on our organs and well-being (Storl 2005c:10). Wild plants get the better score all across the line when one compares amounts of nourishing and vital elements, especially vitamin C or provitamin A, minerals (potassium, phosphorus, magnesium, calcium, and iron), and trace elements. In addition, they contain valuable bitter substances that stimulate digestion, strengthen liver function, support pancreatic and bile secretion, and increase the white corpuscles in peripheral circulation (Bartram 2001:58). The essential oils found in wild plants help keep fungi and bacteria in check. Wild plants support the body functions in various ways, for instance, with a lot of natural roughage that helps keep the intestines healthy. And they stimulate the glands and “cleanse” the blood, flushing out waste matter, uric acid, and metabolites (Fleischhauer 2004:11). Most of our garden and field weeds are edible and have been gathered and used by human beings as food sources throughout the ages.

It is especially important for Lyme disease patients to include a lot of fresh fruit and vegetables in their well-balanced diet. Carrots and red beets are very good as they have high carotene content, which is valuable in fighting infection. Also good is to eat plenty of garlic and onions, as the sulfuric oil (*allicin*) they contain has an antimicrobial effect and heightens the activity of the killer cells. Too much sugar and too many refined foods should be avoided.

Immunity-Strengthening Herbs

May your spirit, plant, and my spirit together form one Spirit of healing.

—The words of an Ojibway herbalist addressed to a healing herb (JOHNSTON 1976:108)

When I was sick with Lyme disease, it seemed to me a good idea to strengthen my immune system with fortifying herbs. In support of the diet and other natural cures, well-known phytotherapist Dr. James A. Duke prescribes the supportive therapy of a three-week cure with **purple coneflower** (*Echinacea*) as soon as one has contacted the disease. He suggests six capsules of the root powder (each capsule = 15 ounces, or 450 grams) per day. Echinacea is antimicrobial, anti-inflammatory, and detoxifying; it activates the lymphatic system and helps raise the white blood cell count. One should, however, take echinacea at the most for three weeks and then stop. If one takes it longer, its effect turns into its opposite, that is, it weakens the natural defense system.

Hemp agrimony (water hemp, *Eupatorium cannabinum*) taken as a tea, which tastes quite bitter, also strengthens the immune system. The hot infusion activates the immune cells, is diuretic, and diaphoretic, and activates bile secretion. Experts disagree about the pyrrolizidine alkaloid content; some—such as the German Commission-E, which investigates herbs scientifically—claim it could cause liver cancer and others claim these concerns to be unfounded. Professor Rudolf Fritz Weiss an eminent authority on herbal medicine, sees absolutely no problem in the use of water hemp; the therapeutic dosage is far below the amount that would be dangerous. Similar to hemp agrimony is **boneset** (feverwort, *Eupatorium perfoliatum*), out of which a bitter, immunity-stimulating, diaphoretic tea is brewed. American natives drank it when suffering from flu and fevers. I myself had astonishingly good results with this tea. Polysaccharides are claimed to be responsible for the resistance-strengthening result of the tea. They have an interferon-type effect, stimulating the activity of B and T lymphocyte cells. Interferon, a protein produced by endogenous cells, blocks multiplication of viruses, tumors, bacteria, and protozoa.

Healing plants and wild fruits, such as rose hips, elderberries, black currants (*Ribes nigrum*), sea buckthorn (*Hippophae rhamnoides*), cranberries, or huckleberries, support the immune system. All of them contain plenty of antioxidants, vitamin C, carotenoids, and flavonoids. Diuretic, blood-cleansing herbal teas that tune up the body and flush out toxins also seemed to be a good idea to me and helped me a lot. Stinging nettle tea (*Urtica dioica*), yarrow (*Achillea millefolium*) tea, birch leaf extractions or teas, and decoctions of horsetail (*Equisetum arvense*) are very good for this purpose. (See the [Appendix](#) for other purifying teas and plants that strengthen the immune system.)

Joy of Life, and a Sense of Purpose

It is best of all when one has the trust to take all that happens with a joyful heart

*and accept it as a good deed of God. Through prayer one achieves everything.
Prayer is a universal medicine.*

—NOVALIS

Joy in life and a general affirmative attitude have a positive effect on the immune system! Even clinical studies show this to be the case. But this *joie de vivre*, as the French call it, can't be brought about by force or command. It is more like grace, a wish fulfilled. One can support it by taking time to feel the wind, by taking a deep breath of fresh air, by smelling the flowers, by letting the soul fly with the birds in the sky or sail with the clouds, by going barefoot and feeling the living skin of Mother Earth, by listening to the crickets chirp or watching a stream flow—all that has a healing effect on the soul and filters directly down to the physical level. It is especially important for the ill to restore in this way and to tune in to the great symphony of being.

In order to get well, it is very important that one has the will to do so. The best doctor and the best treatments cannot work if the patient doesn't really want to get healthy again. Sometimes illness is a nonverbal language, communicating discomfort and unhappiness that cannot be communicated otherwise. Sickness can be used—albeit unconsciously—as leverage inside families to get attention where one would otherwise be ignored. Illness helps a neglected spouse, a lonely grandmother, or a frustrated and misunderstood child to become the center of attention.

Sometimes getting sick is a way of rebelling against boring routine, meaningless work, or perceived exploitation. It is a way to signal refusal, being fed up. A child stays in bed in order to avoid the stress in school. Someone who just can't get a grip on his or her life escapes into drugs, alcoholism, or some kind of chronic disease, such as MS ("Can't you see, I am too weak for the task"), chronic fatigue syndrome ("leave me alone, I'm tired"), constant back problems ("can't stand it"), or, nowadays, chronic Lyme disease. The spirochetes will avail themselves, acting as willing servants in such cases.

A sense of purpose, a reason to live, a true "calling" or, as Eastern philosophy has it, "the realization of one's *dharma*" (the path of life determined by one's karma or past deeds)—all are preconditions to a healthy existence and joy of life. In a society that denies metaphysics and where having frivolous fun, being a good consumer, and making plenty of money are paramount, true joy of life is often difficult to find. How is one to stay sane and healthy when the social, cultural, and even the natural environment convey the opposite: animal and plant species are dying out at a terrifying pace, countries are fighting for basic commodities, taxes rise continually, chemtrails³¹ criss-cross the skies, families break apart, crime makes neighborhoods unsafe, unemployment rises, money inflates, and decadence destroys culture. For the individual, illness and disease often have a cathartic effect. When the carnival of the consumer society has lost all appeal, when lack of love and meaninglessness surround us, the retreat into sickness often helps rearrange matters and sort out what is essential and what is not. Amidst all that darkness, we might then find the star that guides us back to

health, back to the center of being, to our dharma—the deep-seated reason for this specific life here on earth.

Lyme disease could be understood as a challenge to the human soul to become more sober, to find a way back to the essence and real meaning of life. In this way, disease is often a strict taskmaster, a mirror of karma, and it can be a teacher, a guru, for souls who have lost their bearings. Many people healed of Lyme disease agree with the poet Novalis who writes, “Diseases are an apprenticeship in the Art of Living and in the strengthening of character” (Novalis 1980:98).

Setting Some Time Aside

Travel: the benefits are indescribable. The healthiest way to travel is on foot or, even better, by riding a horse.

—CHRISTOPH WILHELM HUFELAND (1847:5)

I found it reasonable to take the advice of the naturopaths seriously. Living a healthy, somewhat relaxed lifestyle, as best I could, helped me get on with my daily work. But I was still more tired than usual and arthritic pains jumped like little devils from one joint to the other, from knee to knee. Occasionally I found myself slipping into the depths of depression. I knew all of this had to do with Lyme. My inner voice told me it was time to go on a vacation, to take some time to reflect and to enjoy some sun and ocean.

It is always good to listen to the inner voice. I booked a cheap last-minute flight to southern India. Soon I found myself in a palm-leaf thatched hut on a beach with turquoise-colored waves and a white-sand beach. The first night I had an impressive dream: I dreamt that an almost invisible, skin-colored parasite stuck to my skin. Only its vague outline was visible. It was difficult to scratch it off with my fingernails, but finally it fell off and disappeared into the sand. The first dream in a new place often has the quality of an omen. I took it as such: whatever was plaguing me, it would leave me here. It must have been the right intuition to come here!

I spent every day lying in the hot sands of the beach, sweating under the intense tropical sun. Since I already had a good tan, thanks to hours spent gardening, I did not run the danger of blistering sunburn that plagues most vacationers. I literally baked myself, the heat penetrating to my bones. Maybe it was not just the heat, but also the effect of the sand’s silicon, contributing to the healing process. “We are hardly aware how much of the energy of solar radiation has been stored in the sands of the beaches in the course of thousands of years. This is passed on to us, when we take a sunbath in the sand!” (Konz 2000:727).

Every time the heat became unbearable, I plunged into the waves. Body surfing and swimming are like a full-body massage, strengthening the heart, increasing circulation, and activating the lymph system. The salty ocean water cleanses and nourishes the skin. The ocean is, after all, the mother of life. Impregnated by cosmic light, penetrated by the sun’s light beams, the ocean brought forth all of the countless living beings, the

bacteria, the plants, and animals, which now populate the earth. We still have the ocean in us. We are mostly liquid and the salt concentration in our blood is still the same as that of the ocean. It is as though we ourselves are the ocean looking at the great ocean from the outside.

Part of my seaside cure was a light diet of fish, rice, coconut, and lots of fruit. It is a reasonable diet, very similar to the diet prescribed by the Caribbean Indians in their treatment of syphilis, which is a spirochete infection much akin to borreliosis. Coconut juice is not only a diuretic, good for kidney tone, and digestive very effective against acidosis because it makes the blood more alkaline; it contains polysaccharides that augment resistance against tuberculosis and other bacterial diseases (Upada and Tripathi 1983:64).

As means for curing diseases, the early church fathers specified mainly prayer, communion, and pilgrimage. They were generally hostile to healing herbs, for these were the domain of their rivals, the heathen priests and herb wise women. The Synod of Liftinae (743 AD), presided over by the Angel Saxon missionary Wynfrith (St. Boniface), forbade pagan practices, such as the worship of trees, rocks, and springs, the incantation of nature gods, soothsaying, and the gathering of the traditional bundle of healing herbs—the magical and healing herbs that women gathered for use during the entire year. Later on the monks began to grow medicinal herbs, mainly of Mediterranean origin, in their monastery gardens. They were practically forced to do this, since the common people, having long and successful experience with the healing herbs, continued to consult the so-called wise women and village herbalists. It wasn't until the twelfth century with Hildegard of Bingen that indigenous healing plants—and not just those mentioned in the Bible—were included again in the Western healing arts.

In the early Middle Ages pilgrimages were one of the main measures taken to regain health. These pilgrimages led to places of grace where holy people had lived or miracles had happened. Long before churches, chapels, or even cathedrals occupied these sites, the places had been sacred to the Celtic, Germanic, or Slavic tribes and before that, to the Megalithic peasants. Geomantic and magnetic forces are at work at such places of power. Nowadays scientists as well as dowsers attempt to measure these “energies” and “vibrations” with an array of instruments. The body, however, is the most sensitive instrument available to us. If we allow it, we can easily feel the energizing or quieting effects of such places on our body and mind. Much like experiencing the vastness of the sea or the thin air of the mountaintop, they can lift us out of a set mental state and free our mind for new inspirations. There is no reason to assume that such places of power are not beneficial for a state of illness such as Lyme disease.

CHAPTER SIX

Dr. Orth, a Faustian Doctor

He is not the doctor clothed in a long splendid gown, lecturing ponderously from the podium; no, he is a man truly experienced, attentive and widely travelled, deeply moved by life's joy and pain, and capable of passionately sharing it with us.

—JOHANN WOLFGANG VON GOETHE (1948:Vol. 16,400)

My natural cure was working well for me, but something was still missing and I wasn't yet fully restored. So I went to see my neighbor, Dr. Gerhard Orth, a very successful, albeit unorthodox, natural healer. He is not a medical doctor, but a doctor of chemistry. His "office" brings the laboratory of the legendary Dr. Faust to mind. Test tubes, microscopes, piles of handwritten notes, precariously balanced towers of books, various instruments for measuring "vibrations." The skulls of animals and other oddities clutter the place, so that it is almost impossible to take a seat. He grabbed his "biotensor," a sort of modern divining rod with a finely coiled wire spring as an indicator, and proceeded to examine my body by holding the instrument over different parts and carefully noting whether the spring spun clockwise or counter-clockwise and at what speed it did so.

Originally Dr. Orth used his biotensor to detect electromagnetic fields in the human environment, in houses, offices, workplaces, bedrooms, and also outside, in yards and building sites. Since the human body has a slight electromagnetic field and bio-electrical currents, he started using this instrument to detect disturbed vibration patterns in the human body. The medical establishment, not surprisingly, is very skeptical about diagnostic approaches like this, but, as an anthropologist, my skepticism is somewhat milder. After all, I had observed American Indian healers stroke the bodies of patients with eagle feathers in order to harmonize their aura and bring them back into a state of health. South American *curanderos* are able to see such disturbed zones in the body with the help of psychedelic drugs such as *ayahuasca* and then bring them back to health with a song, a touch, and perhaps some healing herbs. So why shouldn't a healer in the Western world be able to do it?

After the radiesthesic³² examination and a few questions, he stated:

Yes, it is definitely Lyme disease you are suffering from. An antibiotic won't help. I have had many patients who were just barely capable of dragging themselves to my office, some even in wheelchairs, and that, despite high doses of tetracycline, amoxicillin, erythromycine, cephalosporin, and what not. Some of them had even received the antibiotic intravenously.

Seeing the shocked expression on my face, he quickly added: "But don't worry, it doesn't have to get that far. We'll take care of those little beasts!"

The Call to Be a Healer

A few years ago Dr. Orth held a senior position as a chemist for Siemens Corporation. A friend of nature, he liked to hike and take his kayak down wild white waters. But the increasing degradation of the natural environment dampened his enthusiasm. The worldwide pollution, waste, and exploitation caused by an economic system out of control disturbed him to the point that he decided to do something about it. As a friend of the ecologist Herbert Gruhl, one of the original founders of the Green Party and author of a best-selling book (*A Planet is Being Plundered*, 1978, the German equivalent of Dennis Meadow's *The Limits of Growth*, 1972), Orth started taking samples of water from streams and lakes proclaimed to be clean. He analyzed the results and made them public. His covert actions did not, however, remain unnoticed. After several warnings that he ignored, he was asked to resign from his job.

The result was an existential crisis for the family. They tried to survive by growing organic vegetables on the dilapidated farm he had just bought, with discouraging results. It was during this time of extreme stress and worry that his head began to ache. Soon he felt a strange kind of “pulling” feeling in the back of the skull. The next morning, his son found him crawling on the floor. His vision was so blurred he could hardly see. An ambulance was called and he was immediately taken to a hospital. Diagnosis: meningitis! He found himself in the intensive care unit with all kinds of tubes stuck in his body, including intravenously administered antibiotics. The pain was excruciating, “pressing the life out of me like a huge fist” (Orth 1996:26). The pain pills weren't taking effect. After ten days in such a state, the doctors confided to him that they had done everything within their power.

Things looked very bad for Dr. Orth. He knew if something didn't happen his life would soon be over. In his desperation, he asked God for help, for at least a sign. And then, suddenly, a book he had once read came to his mind: *Folk Medicine*, written in the 1950s by D. C. Jarvis, a country doctor in Vermont.³³ Dr. Jarvis recounts that in the folk and veterinary medicine in rural New England, apple cider vinegar plays an important role. It is used practically as a heal-all: as a compress for joint pains, loss of hair, skin rashes, headaches, loss of memory, varicose veins, stomach aches, bloody nose, athlete's foot, candida, age or liver spots, wounds, and so on. It is also used internally in small amounts for various ailments such as gout, acne, and arthritis, and gargled for afflicted gums. Being a chemist, it made sense to Dr. Orth that vinegar could help him. By using vinegar internally and/or externally, the important acid-base balance of the body is changed. In the body organic acids break down into carbon dioxide and base remainders. The carbon dioxide leaves the body by being exhaled while the alkaline or basic component stays. In this way one lowers the acidic levels to base levels; the blood becomes “sweeter” (more alkaline), restoring a normal pH level of 7.35 to 7.45. This, in turn, changes the milieu for bacteria that inhabit the body. Microbes and fungi prefer an environment that is acidic and do less well in an alkaline surrounding.

He asked a good friend to buy him some bottles of apple cider vinegar. That evening, right after he had received them, he started to wash his entire body with vinegar. Every

once in a while he took a swig of the vinegar diluted with warm water. This he did throughout the night. The next morning when the nurses came in, his room smelled like a vinegar factory. Wet towels soaked with vinegar were lying everywhere. The nurses stared in disbelief and called the doctor.

“My goodness, what have we done?” asked the doctor.

“ ‘We’ have cured ourselves and are leaving the hospital,” Dr. Orth answered. Of course, he had not been miraculously cured. He dragged himself out of the hospital and it took quite some time for him to regain his health completely. In the following years, while recuperating, he tried his hand as an organic gardener. Weeds, bugs, and especially the cold wet Alpine weather prevented success. Instead, however, he became successful as a healer. The bout with meningitis had taken from him the fear of disease and death. It had been what one could call his “initiation sickness.” As is the case for many traditional shamans or healers, such as Sebastian Kneipp, the herbalist Maria Treben, or the discoverer of flower remedies Edward Bach, the existential crisis sensitized Dr. Orth, opening his soul to the light of inspiration. He accepted his calling as a healer and soon ever more people came to receive his advice and unorthodox therapeutic treatment. Cancer and AIDS patients, who had run the whole gamut of chemotherapy, radiation, and antibiotics without being cured, found their way to his office. Like a shaman, he was able to take them by the hand and give them courage to go on. Some experienced full remission.

On his farmstead Dr. Orth built himself a laboratory. He tested the blood and plasma of his patients by means of dark field microscopy, worked with bio-resonance therapy, and experimented with various natural medicines.

His experience taught him that there are no incurable diseases! Disease is not a fixed thing, but a process, the course of which can be reversed. He was convinced of this, and he passed on this conviction to his patients. But they had to work hard to regain their health. He made them change their eating habits, move their beds away from areas of geopathic or electromagnetic stress, take sunbaths and walking tours to activate the body’s own healing processes, and use herbal preparations and herbal teas. He later wrote a book about his experiences (Orth 1996).

He achieved some of his best results with detoxifying, liver-function-improving herbal pills known as Multiplasan. This medicine was composed of a number of dried, powdered herbs pressed into pills. But one would look in vain in normal pharmacies or apothecaries to find them. Veterinarians might have them, for they are actually medicine for horses. They were developed to help our beasts of burden when their digestion does not work properly. I was rather skeptical about his horse-pills, but when I analyzed the herbal ingredients, I realized he was on the right track. Most of the included botanicals had a cleansing effect on lymph and blood, or they improved hepatic function. The liver is the main detoxifying organ, therefore it is a good idea to use plants that support and stimulate liver metabolism. A healthy liver can flush out the bio-toxins associated with Lyme disease more efficiently.

Dr. Orth's Cure

Here briefly are the main aspects of Dr. Orth's Lyme disease cure.

1. Important are two different mixtures of powdered medicinal plants, known by the trademark name **Multiplasan H 33 ®** and **Multiplasan GL 17 ®**. He recommends one take five pills—the equivalent of a teaspoon—of each twice a day with plenty of water. He tells his patients to drink more than usual while doing the cure because some of the plants have a dehydrating effect on the organism. Especially between meals the patients should drink plenty of water, goldenrod tea, or some other hepatic tea. Since Multiplasan is not available in the States, Canada, and most other countries, and some herbalists might try to create their own mixtures, I will list each of the ingredients.

Multiplasan H 33

This cleanser, detoxifier, and digestive includes following herbs used in equal proportions, plus various salts.

- Anise seeds (*Pimpinella anisum*). The essential oil of the seeds has a slight anticonvulsant, antifatulent or carminative (lessens intestinal gases) effect, and stimulates glandular functions, especially those of the gallbladder.
- Caraway seeds (*Carum carvi*) have an antispasmodic and carminative effect; they stimulate the secretion of digestive juices.
- Fennel seeds (*Foeniculum vulgare*) are expectorant (they reduce mucus), antispasmodic, carminative, slightly diuretic, antibacterial, and slightly cholagogic (they promote the flow of bile and stimulate the gallbladder).
- Juniper (*Juniperus communis*) berries have an antiseptic, diuretic, and dehydrating effect. (Note: They might irritate the kidneys.)
- Peppermint (*Mentha piperita*) is an effective anticonvulsant and disinfectant, and it stimulates bile secretion.
- Restharrow (*Ononis spinosa*) root is diuretic (without unduly flushing out electrolytes); it is used traditionally for arthritis, rheumatoid ailments, skin diseases, and urinary stones.
- Stinging nettle (*Urtica dioica*) leaves and shoots are used to flush out uric acid and other waste products of metabolism formed in the body from the breakdown of protein tissue, and to treat rheumatic pain and skin disorders.
- Sweet flag, or calamus (*Acorus calamus*) root has a calming, sudorific, and fever-lowering effect; it is used as a pain reliever, gas reliever, stimulator of menstruation, stomach tonic, and stimulator of pancreas function.

Added to this plant mixture are alkaline mineral salts that help regulate and maintain the proper electrolyte balance and keep the pH blood level to around 7.35 (Orth 1998:107).

- Bicarbonate of soda or sodium bicarbonate (NaHCO_3) is the soda found in baking powder and lemonade powder; it is an antacid good for heartburn.
- Common table salt or sodium chloride (NaCl).
- Glauber's salt or sodium sulfate ($\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$), a natural part of sea water, is also found in healing mineral waters, such as at the famous Carlsbad Spa in Bohemia. Used internally, it acts as a laxative.
- Magnesium carbonate (MgCO_3), a white powder, is antacid and laxative.

Multiphasan GL 17

This preparation, which acts as a laxative and stimulates the function of the spleen, liver, and gallbladder, contains following ingredients.

- Agrimony (*Agrimonia eupatoria*) root is astringent, diuretic, hepatic, and antibacterial, and is traditionally used for liver and gallbladder dysfunctions. It is named after King Mitradaates Eupator of Pontes, who was regarded as knowledgeable about liver-helping plants.
- Angelica (*Angelica archangelica*, *A. sylvestris*) root is anticonvulsant, carminative, antifungal, diaphoretic, and expectorant, and it improves the immune system. It is used for flu, mononucleosis, enteritis, gastritis, gallbladder and liver ailments, intestinal fungal infections, and weakness of pancreas function (Storl 2005d:55).
- Artichoke leaves (*Cynara scolymus*). The extracts from this thistle plant, with their active constituent cynarin, further the digestion of fats and increase the flow of bile by sixty percent. They have an antioxidant effect and lower cholesterol and triglyceride levels in the blood (Schönfelder and Schönfelder 2001:276). Artichoke is an excellent medicine for all kinds of liver and gallbladder problems.
- Beckbean, bog bean, marsh trefoil (*Menyanthes folium*, *M. trifoliata*), a bitter tonic, cathartic, and deobstruent (that is, it clears obstructions by dilating natural passages of the body). In addition, marsh trefoil activates digestive juices and encourages liver metabolism. Traditionally, the plant was used to treat gout, arthritis, rheumatism, skin diseases, scurvy, and recurrent fever.
- Blessed thistle, or holy thistle (*Cnicus benedictus*) root is a good bitter tonic that stimulates bile, saliva, and stomach fluid and is considered an outstanding liver medicine. In olden times, the plant was consecrated to St. Benedict, who was called upon for protection from poisoning (Storl 2005d:14).
- Calamus root (described above, for Multiphasan H 33).
- Chamomile (*Matricaria recutita*) flowers, taken internally or externally, have an antibacterial, wound-healing, anti-inflammatory, and antispasmodic value. The tea is especially effective for stomach and intestinal difficulties.
- Dandelion roots and leaves (*Taraxacum officinalis*) are a powerful diuretic. This bitter tonic activates digestion, regulates the pancreas, detoxifies, and stimulates the liver, gallbladder, and spleen.

- Fennel (described above, for Multiplasan H 33).
- Gentiana lutea (*Gentiana lutea*), a bitter drug, activates the entire digestive system.
- Grape sugar, or blood sugar (glucose, dextrose) is an energy provider.
- Greater celandine (*Chelidonium majus*) is the most important healing herb of the famous French herbalist Maurice Mességué. A liver medicine, it heals hepatitis, cramps, and mucus obstructions of the biliary tracts (Mességué 1994:265).
- Milk thistle, lady's thistle, or Marian thistle (*Silybum marianum*) seeds are regarded as the best medicine for toxic liver damage, chronic and infectious liver disease, gallbladder ailments, and cirrhosis of the liver. It is an antioxidant inhibiting the action of free radicals, and an excellent detoxifier.
- Peppermint (described above, for Multiplasan H 33).
- Valerian, or All Heal (*Valeriana officinalis*) is a superb sedative used for all sorts of nervous conditions, sleeplessness, convulsions, palpitations, headaches, menstrual pains, menopausal restlessness, high blood pressure, and stomach or intestinal cramps. It is as effective as benzodiazepines, but without the danger of addiction or abuse (Bartram 2001:440).
- Yarrow (*Achillea millefolium*) flowers and leaves are effective for a wide range of conditions: liver problems, gallbladder cramps, high blood pressure, stomach cramps, intestinal ulcers, menstrual irregularities, viral infections, and, externally, wounds and cuts. Yarrow acts as an anti-inflammatory, antispasmodic, diaphoretic, diuretic, detoxifier, hemostatis (checks bleeding for inner and outer injuries), immune strengthener, and antiviral (Storl 2005d:181). It is also a choleretic, that is, it helps slightly reduce lipids (fatty substances) in the blood by excreting cholesterol.

In my opinion, the popular ayurvedic herb compound, **Liv 52**, made of herbs from the Himalayan mountains and supportive of liver functions, is as effective as Multiplasan. Other herbal medicines equally effective for treating sluggish liver function and more easily available in North America include:

- Yarrow tea (three cups a day, morning, noon, and evening)
- Dandelion root tea (three cups a day)
- Chicory tea made from the stems of chicory (*Cichorium intybus*) (three cups a day)
- Compounds made from the seeds of lady's thistle or milk thistle, very good for stimulating and regenerating the liver

Liv 52, Ayurvedic Liver Compound

This ayurvedic compound, formulated by the Himalaya Drug Company, Bangalore, is helpful in regulating liver functions. Fans of alcohol consider it an insider tip for excessive drinking because it helps prevent cirrhosis of the liver and heal hepatitis. The following herbs, barks, and roots are the ingredients. To protect the manufacturer's

patent the exact amounts for this healing mixture are not made public.

- Capers (*Capparis* spp., Hindi *kanthari* or *kapra*), from which the bitter root bark is purifying and alleviates gastrointestinal infections
- Chicory (*Cichorium intybus*, Hindi *kasni*) seeds or roots as a liver tonic
- Black nightshade (*Solanum nigrum*, Hindi *makoi*), fresh extract, for cirrhosis of the liver
- Arjuna (*Terminalia arjuna*, Hindi *arjuna*) bark to lower blood pressure, and act as a diuretic and liver tonic
- Cassia, or coffee senna (*Cassia occidentalis*, Hindi *kasondi*) bark is good for the liver
- Medicinal ashes (Hindi *mandur bhasma*)

These ingredients are mixed with smaller amounts of the following medicinal herbs:

- Bhringaraj, or false daisy (*Eclipta alba*), for its antihepatotoxic effect
- “Seed-under-leaf” (*Phyllanthus amarus*), an effective antihepatotoxic, also effective against the hepatitis virus
- Red spiderwort (*Boerhaavia diffusa*, Hindi *puarnava*), a liver tonic and kidney cleanser
- Guduchi (*Tinospora cordifolia*), a bitter tonic with diuretic and hepatoprotective properties
- Barberry, or wood tumeric (*Berberis aritata*, Hindi *daruharidra*), for cleansing the liver
- Black radish (*Raphanus sativus*), to stimulate the gallbladder
- Indian gooseberry (*Phyllanthus emblica*), for its positive effect on liver enzymes, as well as antibiotic action
- Ceylon leadwort (*Plumbago zeylandica*, Hindi *cita*), to stimulate the production of sweat, urine, and bile
- Vidanga (*Embelia ribes*), a cooling, “blood-cleansing” vine, also used as part of hepatitis treatment
- Black myroblan (*Terminalia chebula*, Hindi *haritaki*) fruit pulp, considered to be a panacea
- Earth smoke, or common fumitory (*Fumaria officinalis*, Hindi *pitpa-para*), a liver tonic

2. Along with these liver remedies, Dr. Orth recommends drinking up to one quart of goldenrod tea a day, either European goldenrod (*Solidago virgaurea*), Canadian goldenrod (*S. canadensis*), or *Giant Goldenrod* (*S. gigantea*). The tea is brewed with boiling water (one tablespoon per quart) or made as a cold infusion (one tablespoon of tea is left to steep for eight hours in one quart of cold water), and then drunk sip by sip over the next 8–10 hours. The tea activates the kidneys and protects kidney tissue from irritation that could come from the juniper berries or the Multiplasan mixtures.

3. In the morning Dr. Orth advises taking five drops of a homeopathic preparation called Mucokehl ® D5. This compound is based upon what is today a controversial

theory of the pleomorphism of microorganisms proposed by microbiologist Günther Enderlein in 1915–1916. Pleomorphism is the theory that microorganisms can take on various different forms in their life cycle. Professor Enderlein claimed, with the help of a dark field microscope, to have discovered microscopic plant-like “endobionts.” These germs are basically harmless, but when their milieu, the conditions of their environment, becomes unfavorable, they can turn into pathogenic forms. Such unfavorable conditions include increasing acidity (lowered pH value in blood and serum), pollutants, insufficient oxygen, poor nourishment such as too much fat or sugar in the diet, and so on. It is then that these endobionts clump together and mutate into illness-causing forms (bacteria, fungi). On the other hand, simple endobionts are also capable of neutralizing pathogenic, parasitic microorganisms by conjugating with them. The result of these conjugations Professor Enderlein called “chondrites.” These chondrites are consequently excreted via urine, stool, and sweat. The compound Mucokehl contains pharmaceutically prepared endobionts that render pathogenic mutants harmless. The compound, which also contains lactic acid, improves the milieu in the body fluids and connective tissue, and has a detoxifying effect. It has been shown to work best when combined with a vegetarian diet (Rosen 1993:2–5).

The endobiont theory of the good professor stands on rather shaky grounds, and Mucokehl, though widely used in European alternative medicine, is not available in the States. But that should not concern us. What is important in treating Lyme disease is the emphasis on keeping the internal environment of the body healthy. This is based on the insight of the famous French scientist Claude Bernard, the opponent of Louis Pasteur, who admitted just before he died that Bernard was right when he (Pasteur) said, “*Le microbe n’est rien, le terrain est tout*” (The microbe is nothing; the terrain is everything). In other words, it is more important to improve the body’s endogenous milieu than to battle the viruses, bacteria, or fungi.

4. A fourth measure of Dr. Orth’s cure is to rub a mixture of essential oils into the hollow of the knees and the inner side of the elbow three times a day. This mixture is made of three parts olive oil and two parts *essential oil* (composed of a mixture of juniper, peppermint, calamus, anise seed, rosemary, geranium, caraway, fennel, eucalyptus, lemon, lemon balm, sage, lemongrass, thyme, cinnamon, clove, and lavender). Dr. Orth’s essential oil mixture is based on the research of Dr. Jean Valnet, a French doctor and pioneer in aromatherapy. Essential oils, taken in through the skin, have an antibacterial effect in the body (Valnet 1992). They are also capable of slowing the reproduction of *borrelia spirochetes*. The use of this mixture of oils is, by the way, a good prophylactic for any infectious disease one might encounter traveling in tropical countries.

5. In addition, Dr. Orth prescribed propolis powder (0.5 grams) daily with a pinch of cinnamon in yogurt or on a piece of apple. Propolis is the antiseptic resinous mixture or “glue” bees use to seal small places in their hives. The substance is rich with benzol and phenol acryl acids, benzol and phenol alcohols, as well as flavonoids and essential oils, which account for its antimicrobial, antiviral, and immunomodulatory effect.

I followed Dr. Orth’s advice and I soon felt better. But it wasn’t the end of it yet. The

symptoms disappeared but I had the distinct feeling that the spirochetes were still lurking in my body. I felt that the next time my immunologic resistance was down, they might swarm out anew.

Neurotoxins and Lipid Bacterial Debris

By chance I stumbled onto an informative book written by a former teacher named Monika Falkenrath, which confirmed my reservations about antibiotics (Falkenrath 2003). She described her own personal ordeal with Lyme disease and her search for a natural cure. In her approach, she follows Richie Shoemaker, an American MD, who advances the theory that it is not the borrelia spirochetes themselves that cause the various symptoms, but their waste products, so-called biotoxins or neurotoxins. These toxins trigger the massive release of inflammatory cytokines (proteins that regulate the intensity and duration of the defense) (Shoemaker 2001:3). The biotoxins also interact synergistically with heavy metals and environmental poisons, causing autoimmune reactions (Klinghardt 2005:5). If that is the case, detoxifying therapies and liver-activating plant mixtures, such as Dr. Orth's horse-pills (Multiplasan), Liv 52, and especially teasel root (which will be described in [Chapters Seven](#) and [Eight](#)) would, in fact, constitute a very reasonable form of treatment.

Shoemaker writes that antibiotics fight the borrelia germs but not the fat-soluble neurotoxins they produce. Neurotoxins are stored in fatty tissue of the organism and go through enterohepatic circulation. This means they are not excreted with urine or stool, but are reabsorbed together with the lipid-soluble bile acids in the intestines and transported back to the liver. In other words, neurotoxins circulate again and again through the body, causing repeated inflammatory responses. For that reason, he considers it nonsense to think that one can cure Lyme disease within three weeks with a standard antibiotic treatment (Shoemaker 2001:10).

Neurotoxins are mainly made up of surface lipoproteins or their debris when these microorganisms die off. These fat-soluble toxins initiate a cascade of immune system reactions and stimulate an overrelease of cytokines, which causes inflammatory reactions in tissue and organs, such as muscle and bone pain, as well as neuralgic, endocrinal, and immunological failure.³⁴ These lipoproteins are mainly responsible for nearly all of the Lyme disease symptoms (Taylor 2004:1).³⁵ These toxins confuse the neurotransmitters,³⁶ so that neurons get stimulated but convey the messages inaccurately; the infections that are triggered can plug small vessels so that various tissues can become undersupplied with oxygen. If the borrelia are massively killed by an antibiotic or some other means, even more toxic lipoproteins get released; these circulate in the blood, leading to a worsening of the symptoms. This worsening is referred to as the Jarisch-Herxheimer reaction, or Herx reaction (see [Chapter Nine](#)).

If Dr. Shoemaker's theory is correct, specifically that the fat-soluble toxins are responsible for Lyme disease symptoms, then the best therapy would be to flush out these bacterial lipoproteins with extensive defatting measures to cleanse them out of the

body. Dr. Shoemaker comes to just this conclusion. He and his followers suggest using cholestyramine, an anion-exchange resin that can lower the cholesterol or fatty acid level by twenty percent. This exchange resin binds bile acids in the intestines and gives off chloride in exchange. These bile acids, which transport fatty particles (lipids), are usually reabsorbed by 80–90 percent into the intestines, but with the use of cholestyramine most of them bind to the resin and are excreted in the stool. Possible side effects of the therapy are nausea, a bloated feeling, constipation, headache, and muscle pain (Langbein et al. 2004:655). Fat-soluble vitamins A, D, E, and K are, of course, also excreted and must be replaced by vitamin supplements. The results of this therapy are reported to be satisfactory. Patients who have undergone this therapy reportedly did better on the grey-tone eye test. It sounds genial to use fat-lowering agents that flush bile acid out of the body together with lipoproteins. I am hesitant, though, and suspect unforeseen effects and risks. Surely there are natural means with fewer, if any, side effects. Multiplasan or Liv 52 are probably enough to egest fat-soluble bacterial toxins.

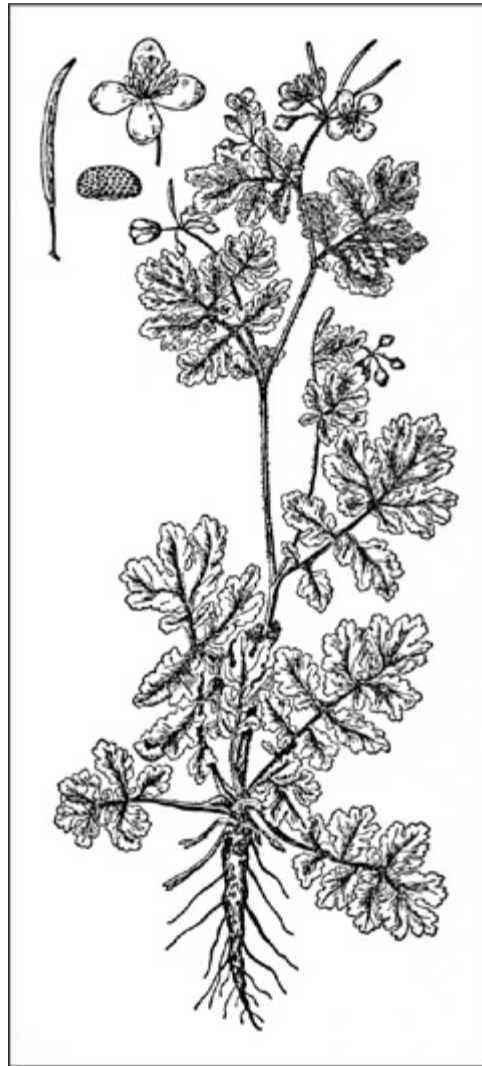
Better natural plant alternatives to synthetic lipid sinkers are the following.

- Bitters and roughage, such as are found in teasel root, reinforce bile secretion (Bühning 2005:397).
- Artichoke (*Cynara cardunculus*, *C. scolymus*). Bitters such as are found in this plant, a member of the thistle family that has been cultivated since ancient times, not only activate bile acids, but also regulate lipids. They lower cholesterol and triglyceride levels by 10–15 percent, and block cholesterol biosynthesis in the liver. In addition, due to its highly antioxidant character, artichoke protects the liver from free radicals (Schönfelder and Schönfelder 2004:161).
- Lady's thistle, milk thistle, or holy thistle (*Silybum marianum*). This very old healing plant with its white veins and speckled leaves is also a thistle, as the name indicates. It used to be believed that the white splotches came from milk in Mary's breasts, which dripped down on the plant, and thus the plant was especially healing. The ripe seeds are ground and prepared as a tea (one teaspoon per cup, thrice daily). The active ingredient complex, silymarin, protects the liver from toxic damage, poisoning, lipotoxins, and damage due to medication. The plant can even help with mushroom (death cap or death amanita) poisoning if taken soon enough. Like any thistle, lady's thistle activates liver metabolism and bile functions.



Durga, goddess of turmeric

- Curcuma, or turmeric (*Curcuma longa*). Cooking wouldn't be complete in India without this yellow powder, omnipresent in curries. The same can be said of traditional Indian "First Aid," where it is used as a heal-all. The plant belongs to the ginger family. A salve made of turmeric simmered in butter heals even severe wounds quickly. The plant is dedicated to the fair-skinned, lion-riding goddess Durga in India, who wields her sword to behead any illness-bringing demon that crosses her path. Curcuma stimulates bile functions and the digestion of fats, lowers the fat content in the blood, and has anti-inflammatory, immune-stimulating, and antimicrobial qualities.
- Celandine, or swallowwort (*Chelidonium majus*). This slightly poisonous plant from the poppy family is the favorite healing plant of Maurice Mességué, who comes from Gascony, France where there are many vineyards and where brandy is the main beverage of the men. Already the planetary signature³⁷ indicates the plant must be a liver healer: the yellow juice tastes like bile and the squashed leaves smell like raw liver. Indeed, it is one of the most well-known plants for detoxifying the liver. It also relaxes the biliary tracts and one can remove warts by dabbing the yellow juice on them over a certain amount of time.



Celandine



Burdock

- Burdock (*Arcticum lappa*). The Celts and Germanic peoples of old thought of burdock as a bear plant, which could scare the demons of sickness with its scratchy blossoms. The seeds can be used in the same way as lady's thistle. The root, as powder or tea, has blood and lymph cleansing qualities. Burdock strengthens liver and gallbladder functions. It was used for syphilis to detoxify, as a diuretic, and a sudorific. The fresh or dried root, crushed and applied as a poultice, helps alleviate joint pains, such as one gets with Lyme arthritis.
- Chlorella. These green, one-celled algae, which can be bought as a food supplement, are popular today. In high doses they antioxidantize and lower the lipid level. They bind fats, bacterial lipoproteins, and other toxins, and transport them out of the intestines. Some claim, however, that these algae are themselves polluted with heavy metals and toxins. Franz Konz claims that we, as primates, were not genetically programmed for eating large amounts of one-celled algae; besides they have overdoses of iodine (Konz 2000:483).
- Coriander (*Coriandrum sativum*). This pungent, unpleasant-smelling herb activates the digestion glands and is antispasmodic for flatulence and colic. According to Dr. Klinghardt, it is detoxifying, though that has not been clinically proven.
- Psyllium (*Psyllium afrum*, *Plantago ovata*, *P. ispaghula*). The seeds of all the plants of the plantain family contain slime that swells and becomes sticky when wet. This is how they attach to the soles of shoes or animal hooves and seed themselves out to other areas along footpaths and dirt roads. The Indian flea seed has the most of this mucilage. The plant is very helpful for the bedridden or those confined to wheelchairs in that its mucilage alleviates sluggish bowels. Cooked seeds help settle the intestines, helping to solidify for diarrhea and softening for constipation. They also help lower the fat levels in the body. "Fifteen percent of the bile acid and cholesterol bind to the slimy substance and are excreted with the stool, thus leaving the enterohepatic circuit" (Bühning 2005:131). Psyllium helps keep the flora in the intestines healthy by protecting the mucous membrane and binding bacteria and toxins.
- Oat bran (*Avena sativa*), a waste product of oat flake processing, has a similar effect as psyllium. Betaglucan, a soluble component of dietary fiber, interrupts the enterohepatic circuit, absorbing bile acid and carrying it out of the body. The bacterial lipoproteins (neurotoxins) of the spirochetes thus exit the body too.
- Garlic (*Allium sativum*) and bear's garlic, or wild garlic (*Allium ursinum*). Both of these strong-smelling plants have always been known as blood cleansers. They are not only disinfectants but discourage worms; they are digestives, lower blood pressure, and have been proven to lower lipid levels and act as antioxidants.
- Jerusalem artichoke, or sunchoke (*Helianthus tuberosus*). This plant of the sunflower family, originally from the North American prairie, is not only a wonderful vegetable, but also a fat reducer. In the intestines, sunchoke absorbs bile acid, cholesterol, triglyceride, phospholipids, and other free-floating fatty acids and exit

them with the stool. They are good for anyone who wants to lose weight. The tuber has a lot of inulin, a sugar that diabetics can easily consume. Inulin is broken down by intestinal microorganisms, causing an increase in endogenous bifido bacteria, which is good for the intestinal health (Schönfelder and Schönfelder 2004:228).



Jerusalem artichoke

- Cat's claw (*Unicaria tomentosa*). This newly discovered South American rubiaceae is claimed to be able to block neurotoxins (more in [Chapter Ten](#)).
- Chitosan is a food supplement, not from a plant but made from the waste of crab fishing. The chitin-containing shells of crabs are used. Chitosan is sold in the U.S. as a fat blocker, a "fat magnet" that shows fat the way out of the body. Of course, it also reduces the fat-soluble vitamins.
- Healing earth, green earth, or ground clay is considered to be one of the best lipid sinkers. The green clay takes twenty percent of its weight of fatty materials through the intestine and out of the body (Konz 2000:485). Lipids are also absorbed and flaked off through electrolyte positive action of smectite (montmorillonite), a colloidal, watery clay.



Japanese knotweed. A fresh shoot with the dried stalks of the past year in the background.



Harvesting teasel with students in Hungary.



Desiccated flower heads at the end of the teasel plant's two-year growing period.



Flowering teasel with a jar of teasel tincture and other herbs.



Teasel rosette in the spring (first year).



Burdock leaves in the summer (first year).



Root and fresh sprout of the Japanese knotweed.



Stem of the Japanese knotweed showing nodes.



Common tick.





Burdock root.





Teasel roots at the end of the first growing year, ideal for preparing teasel tincture, tea, or root powder.





The tap root of a teasel in perfect condition for use.



Inset: Female tick gorged with blood in the process of laying eggs (a stand of Japanese knotweed in the background).



CHAPTER SEVEN

For Every Sickness There Is a Healing Plant

*Go to the pine tree
if you want to know something about the pine tree.
Go to the bamboo bush
if you want to know about the bamboo bush.*

—BASHO, Japanese master of Haiku

No one could live without plants. Plants are the basis for our existence and they have always played a central role in every culture. They feed us, clothe us, warm us, provide shelter, and make our world beautiful, giving it color that nourishes our souls. Even at the dawn of time, when we were roaming hominids, medicinal plants kept us healthy. Plants are interwoven in our symbols and language. Without plants we would not even have air to breathe, and the sky would not be blue. For all these reasons, plants have always been seen as godly beings, as incarnated angels, as *devas*, and as “mothers, older than the gods, born three eons before the present” (Atharaveda). Considering this anthropological fact, it is not surprising that basically all indigenous people cherish the belief that for every ill there is a healing plant.

My friend Bill Tall Bull, a Cheyenne medicine man who accompanied me on many walks in the prairie and in the Big Horn mountains, told me the following story about the origin of disease and healing herbs, a story which is common to many of the Algonquian-speaking woodland Indians: In the beginning, people and animals lived together in peace and harmony. They understood each other. But in the course of time, the two-legged beings started taking the gifts the animals gave them for granted. Rudely and without a word of thanks, they took what they needed: meat, furs, feathers, claws, horns. Often they cut out the best pieces of meat and left the rest to rot. At some point, enough was enough. The bear, the chief of the animals, demanded an apology. But the humans ignored him. Since they did not listen, the animals held a great powwow, in the course of which each kind of animal cursed people with a specific disease—only dogs left the meeting feeling a little bit sad and sorry for the people. The deer cursed the humans to be racked with rheumatism and arthritic pains. Mice wished fever upon them. The snakes said they would haunt them in their dreams. The smaller the animals were, the worse were their curses. The tiny crawling insects—ticks, mosquitoes, and worms, which had been stepped on and crushed—were very angry. They felt the most insulted and consequently sent the most horrible illnesses. Surely all of humanity would have died, had the plants, the “green folk,” not been listening. Since they had suffered often enough from creeping and crawling, seed-eating, root-gnawing, and juice-sipping tiny creatures, they took pity upon the human beings. Plant spirits appeared to the medicine

men and women in their visions and let them know that they had the power to heal any disease. Whenever an epidemic or plague made their lives miserable, the healers should call upon the plant spirits and ask them to reveal their healing power. For every sickness there would be a plant that can heal it.

Not only our ancestors in Europe, America, Africa, or Asia were convinced about the healing power of plants; the doctors and scholars of the Middle Ages in Europe also shared this conviction. This is shown, for example, in the thirteenth-century “Medical Poem of Salerno.”³⁸ The poem, a summary of the teachings of Christian, Arabic, and Jewish doctors at the famous medical school in Salerno (southern Italy), contains the following passage (verse 112): “*Cur moriatur homo, cui salvia crescit in horto?*” This is commonly translated as “Why should a person die who has sage growing in his garden?” However, *salvia* (Latin *salvus* = healthy, healing) is not necessarily the garden herb sage (*Salvia officinalis*); it could be any medicinal or healing herb. What the author of the medical poem of Salerno really asks is, why should anyone die when there are healing plants growing around us? The next line in the original text answers: “While it is true that for every disease there is a healing plant, for death’s venom there is no healing plant.”³⁹

Seek and Ye Shall Find

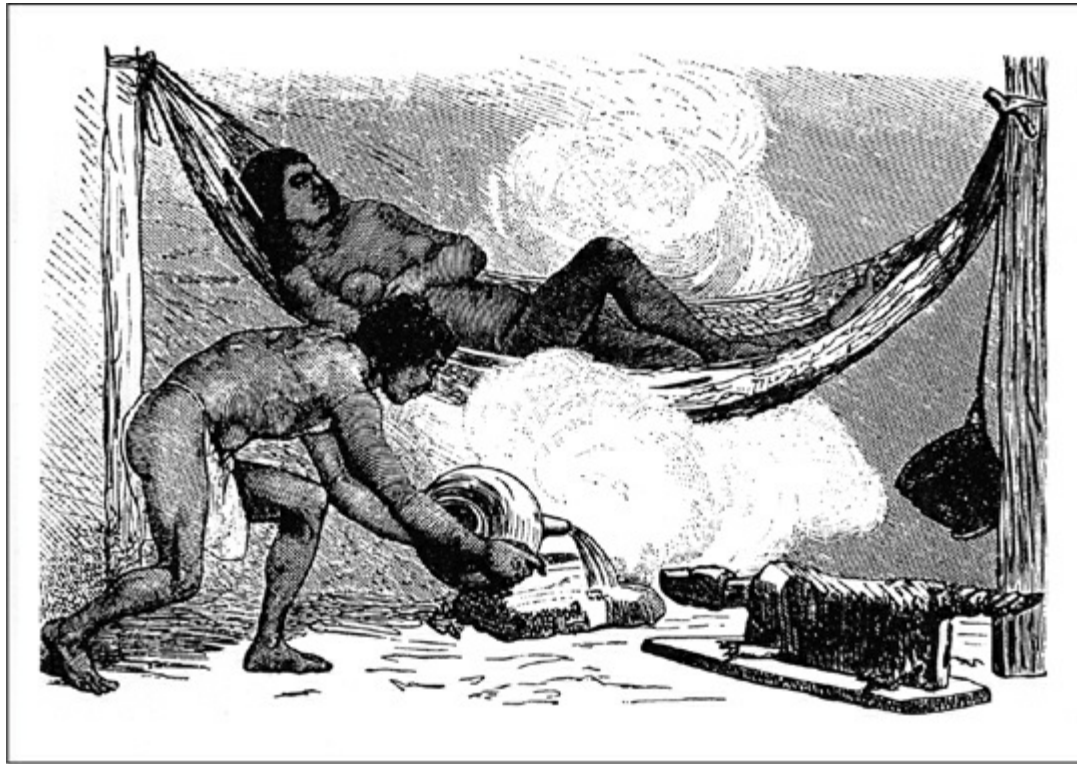
The return of Columbus from the New World brought an abrupt end to the common belief that God had created a healing plant for every sickness. As soon as he landed, syphilis, this “serpentine disease,” spread like a wild fire throughout the Old World. The women, guardians of an age-old herbal tradition, and the monks in the cloisters were at a loss in the face of this terrible disease. Neither the gentle, soothing herbs assigned to Venus (such as mallow, fenugreek, plantain, or yarrow) nor their counterpart, the plants of Mars (oak bark, daffodils, or stinging nettles) could alleviate the symptoms of the venereal disease. No herbs seemed to have the power to heal this scourge. In desperation the doctors recalled the poisonous mercury ointments that the crusaders had encountered in the Holy Land, which were used against parasitic and fungal infections. This toxic “Salve of the Saracens” marks the beginning of modern chemotherapy. Mercury salve was somewhat able to suppress the symptoms of syphilis but the cure was often worse than the disease (Storl 2005e:147).



Columbus and the bathing Indians (woodcut from Ptolemaeus, Geographiae errationes, Strassburg, 1525)

There was, however, no real need to reject plant remedies. The Indians of the Caribbean Islands successfully cured spirochete infections, including syphilis, and the very similar yaws (frambesia), with a combination of the following measures:

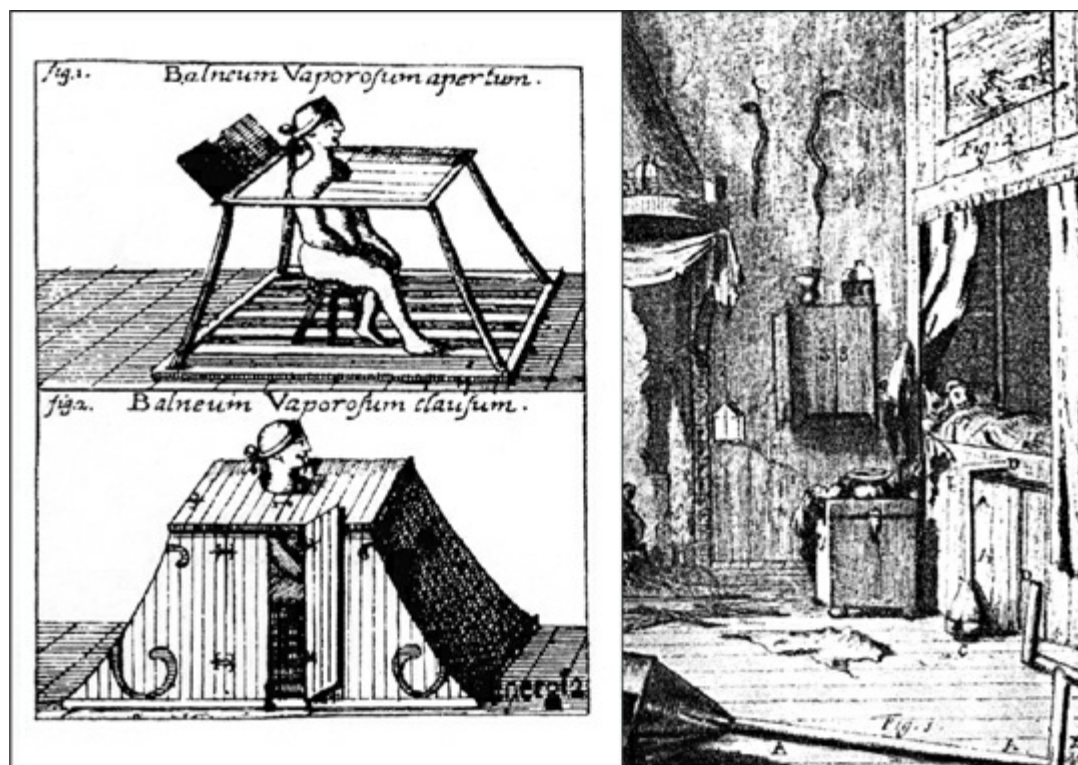
- Extremely hot sweatbaths
- Strenuous bodily exercise, activating the lymph system and blood circulation
- Special diets
- Herbal cleansers such as a boiled concoction from the resin of the Guaiac or Holywood tree (*Guajacum officinale*). In Venezuela sarsaparilla (*Smilax aristolochiaefolia*) was used for the same disease.



Sweatbath of the Rouquouyennes Indians (copperplate engraving by Creveaux, Braunschweig, 1881)

Scientific studies done in the 1930s showed that sweatbaths, which heat up the body to 107.6°F (42°C), in addition to drinking great amounts of the guaiacum concoction, are indeed effective in killing off the syphilis spirochetes (Griggs 1997:37). Though the Indians in the Caribbean were able to cure the spirochete disease very successfully this way, in Europe the cure usually didn't work, for the following reasons.

- The “primitive” sweatbath of the Indians was replaced with a stay in sticky, hot, airtight rooms, preventing proper raising of the body temperature (hyperthermia) and copious sweating.
- Bodily exercise didn't seem to make sense and was deemed unnecessary.



Sweatbaths in Europe. Left: Copperplate engraving in Blodel's *Thermarum Aquisgranensium et Porcetanamamorum elucidatio*, Aachen, 1688. Right: *Sweatbaths for syphilis patients*, artist unknown, Amsterdam, 1696 (note the spirochete-like snake images on the wall).

- One saw no sense in abstaining from good food, alcohol, or sexual intercourse.
- The quality of the imported guaiacum was pharmacologically extremely poor. The wood had been improperly harvested and processed. It was void of the greenish-brown, pasty, and very bitter resin, and thus no longer contained the active ingredient.

In my search for a remedy, I came to the conclusion that one could use this therapy that the Indians had developed for syphilis—a blood cleansing phytomedicine, hyperthermia, and a light diet—for Lyme disease as well. Lyme disease is a similarly relapsing, spirochete-caused infection. It has not been called “deer syphilis” for no reason. Like the syphilis spirochetes, the borrelia, which thrive at a temperature of 96.8°F (36°C), are also inactivated by a temperature above 107.6°F (42°C). Guaiacum is still occasionally used in phytotherapy for rheumatism, arthritis, skin diseases, and as a blood cleanser. A decoction made of the resinous wood is simmered gently for twenty minutes (dose: half a cup). One can also use a concoction made from the pure resin (one-third ounce or 1 gram to approximately 1 pint or 250 ml of water) and drink it by sipping over a few hours, or take a tincture of the resin in alcohol (20–30 drops a day).

It is nearly impossible to find guaiacum of good quality these days. Besides, the beautiful blue flowering tree of the bean-caper family (*Zygophylliaceae*) has become rare and finds itself on the IUCN Red List of Threatened Species.⁴⁰ Therefore, I wondered if there might be another plant growing in our own local environment, which would have

similar healing qualities. I searched local traditional lore as well as literature.

Deer Syphilis

I found an answer I was looking for in an informative, well-researched book called *The Book of Herbal Wisdom*, written by the herbalist Matthew Wood, a healer well acquainted with Western herbal tradition, as well as homeopathy and traditional Chinese medicine (TCM). He discovered that the local variety of teasel (*Dipsacus asperoides* or *D. japonica*) is used in TCM for a complex of symptoms very similar to those of Lyme disease. Chinese healers call this plant *xu duan*, which means “restoring that which has been broken”; they prescribe it for traumatized joints and muscles. *Xu duan* is considered to be one of the best medicines for strengthening “kidney essence” (*jing*) and the so-called “liver blood” (Wood 1997:234).

In TCM *jing* is defined as the amount of original life energy we inherit from our parents, the inherited state of health. *Jing* “resides” in the kidneys, “the root of life.” During our life, the kidney essence is upheld by the quality of our food, of the water we drink and air we breathe. One could compare this energy with the electricity of a car battery: if one leaves the lights or radio on, the energy is slowly drained out. Similarly, our life energy diminishes through an exhausting lifestyle, too much stress, being overworked, bad nourishment, wasting semen (for example, through masturbation and excessive sexual activities), nightlife, and other exhausting activities. As we grow older, we have ever less *jing* available; it gets used up. When this happens, our hair turns grey, bones get brittle, muscles weaken, back and knee joints get stiff and painful, sexual energy wanes, menstruation stops, fertility expires, the eyes become weak, teeth lose their bite and fall out, one becomes hard of hearing and the ears ring, mental strength wanes, and one begins to lose one’s memory (Hicks 1997:34).

In TCM the liver has two tasks to perform: to move the flow of the *ch’i* (*qi*) energy through the body and to store and distribute the blood. If the liver cannot do its tasks properly, or there is a lack of blood in the liver, our muscles, tendons, and ligaments do not get proper nourishment and become weak, cramp up, and become susceptible to inflammation. Also the nails get brittle and the eyes do not see as well (Kaptchuck 2006:74).

According to Chinese medicine syphilis destroys this kidney essence, *jing*. This is why the syphilitic experiences the destruction of his bones, joints, and cartilage. He literally loses his or her grip; he suffers mental and physiological breakdown and has mental lapses. This can also occur with chronic Lyme disease, which, as we have seen, is closely related to syphilis.

For Matthew Wood, Lyme disease, which he facetiously called “deer syphilis,” is a modern form of the *syphilitic miasma*, as formulated by Samuel Hahnemann, founder of homeopathy, and should be treated similarly. Wood states that the spirochetes passed from the ticks to the deer quicken the growth of their antlers but in humans they cause the muscles and joints to become chronically inflamed, similar to a progressing syphilitic

infection (Wood 1997:237).

When traditional Chinese healers talk about “kidneys,” “liver,” or other organs, they do not mean the solid anatomical structures conceptualized by modern Western medicine. They see the body less as consisting of parts in mechanical interaction, but rather as dynamic functional fields connected in a network of physical, energetic, emotional, and spiritual energies. Each “organ” is the focus of one or another of these energies, and is connected to other organs through meridians.

Teasel, prepared as medicine, supports *yang*—the active, masculine, begetting, light, warm, and fulfilling aspect of universal *ch'i*-energy.⁴¹ By strengthening the kidney's functional field, bones and joints are strengthened and in pregnant women miscarriages are avoided. By strengthening the liver's functional field the plant strengthens the muscle tonus and blood circulation. According to TCM it is the stagnation of blood that is responsible for pain.

According to Chinese herbalism, teasel (*xu duan*) has the following empirical characteristics.

- Temperature (*xing*) is “light warm” (*wie wen*), which means teasel helps with digestion and moves *ch'i* energy.
- Taste (*wei*) is characterized as follows: bitter (flushing, detoxifying, anti-inflammatory, drying, and, in small amounts, stimulating for digestion); sweet (providing a good tonus, balancing, relaxing); and spicy (stimulates sweating, disperses obstructions, stimulates blood circulation and *ch'i* flow, so that life energy radiates to the surface, for example, to the skin).
- Organs (functional fields) are kidney and liver.



Chinese medicine meridians, functional patterns, and acupuncture points

In the Chinese herbal lore that has been handed down, healing herbs are seldom used alone; they are almost always used in combination with other herbs, and usually in components of four: the main medicinal herb (“the emperor”), the supplement herb (“the minister”), the helping herb (“the helper”), and the messenger herb (“the ambassador”) (Suwanda and Tian 2005:16). For example, teasel is used for blood in the urine and for stomach pains, in combination with mugwort (*Artemisia argyi*), great burnet (*Sanguisorba*), milk-root vetch (*Astragalus*), and angelica root (*Angelica*). The classical herbal tradition of the West, based upon the teachings of the Greco-Roman doctor Galen (129–199 AD), also preferred mixtures of various herbs, tree bark, seeds, roots, and mineral components. The scholarly monk’s medicine and the apothecaries of the Middle Ages continued this tradition, often mixing up to 100 ingredients into their electuaries (medicinal pastes and syrups), theriacs (antidotes, or cure-alls) and elixirs. The wortcunning⁴² wise women, on the other hand, whose herbal lore goes back to pre-Christian, Celtic, and Germanic roots, tended to prefer the use of single herbs or “simples.” It is, after all, easier to observe the results with these simple, uncompounded medicines. Such herbal doctors as Paracelsus or Nicholas Culpeper later carried on this

indigenous tradition of using simples.

When I told a doctor who practices TCM that Matthew Wood uses teasel for treating Lyme disease, she got fairly riled:

First of all, a disease as such is not treated in TCM, but a functional pattern—kidney-yang-weakness, liver ch'i rising, moist heat in the Triple Warmer, and so on—and second of all, single plants or simples are usually not used. This is logical because there is usually more than one symptom and various herbs are needed to deal with them. Matthew Wood cannot be a genuine representative of TCM. His mono-therapy puzzles me. It is true that Radix dipsaci [teasel root] strengthens bones, muscles and the immune system, in that it supports the kidney and liver yang; and it also gets the pain causing, stagnated liver-blood circulating—but what about the other symptoms, such as inflammation in the inner organs or skin rashes? Other herbs are necessary to deal with the other symptoms! And since each person has a different pattern, each one needs a completely individual prescription.

She continued her lecture, adding, “It is even possible that a TCM therapist would reject the use of *Radix dipsaci* as part of a Lyme disease prescription. That is as long as heat patterns, meaning inflammations, are the foremost symptoms. As you know, teasel has a warming quality!”

In the context of the medicinal paradigm in which she operates, she may be right. But Matthew Wood is closer to the native Western herbal tradition with simples and use of one single plant ingredient. Following the lead from TCM, Matthew Wood developed a tincture from the root of the indigenous teasel (*Dipsacus sativa*, *D. fullonum*, *D. sylvestris*) and treated his Lyme disease patients with it.

The first case that Wood treated with teasel tincture was—to use his own words—dramatic. A middle-aged woman, who had become an invalid five years after being infected, developed a genital rash as a reaction to the teasel. After three and a half weeks she felt much better. The four blood tests confirmed this. The patient presumed that the teasel had activated her immune system (Wood 1997:238). The second case involved a female patient suffering from chronic Lyme disease with diverse symptoms ranging from muscular pains to mental depression. Incapable of working, she had been reduced to living on welfare. At first the tincture brought on a worsening of symptoms, followed by healing. The other cases that Wood describes took a similar course.

HOW TO MAKE TEASEL TINCTURE

(According to Matthew Wood) The root of the biennial plant is taken at the end of the first year in the fall, winter, or spring, before a stem grows. The root is washed and cut into small pieces, which are stuffed into a clean jar and covered with vodka or any other high-percentage alcohol. The tincture is finished after macerating for

three weeks in a warm place. Dosage: three drops three times a day.⁴³

Length of the cure: three to four weeks. It is beneficial to repeat the cure once a month for three days, in each of the following twelve months. This is a prophylactic measure, since the borrelia spirochetes show a monthly reproductive peak.



Ritual for the Teasel Deva

Wood's report fascinated me. In the late summer of 2001, I was asked by the School of Practical Naturopathy of Zurich⁴⁴ to teach a course for herbal therapists in rural southern Hungary. Vigorous wild plants covered the yellowish loamy soil in the fallow fields of the Eastern European countryside, including ragweed, pigweed, and other "weeds" I had known and loved during my childhood in Ohio. Among them, standing tall and upright, grew healthy stands of teasel. We decided to dig up the roots and make the tincture Matthew Wood describes. While doing so, we took heed to bring good spirits into the medicine, by calming the mind and giving thanks with songs and offerings. Materialists might call these "incidental" aspects insignificant or superstitious, but in Native American medicine, in Anglo-Saxon leech craft, in the ayurveda, and in other healing traditions, this is an aspect not to be slighted. We thanked the spirit (deva) of the plant and used the dry flowering tops of the ancient shamanic plant, mugwort (*Artemisia vulgaris*) to make a lot of "holy smoke." Such a ritual can be compared to a meal: if one conceptualizes food as a mixture of various chemical ingredients, as fuel to keep our body machines working, then it does not matter if one eats it out of a tin can or spoons it mindlessly from a plastic plate while watching TV. On the other hand, one can make a meal into a joyous, aesthetic experience by taking care in preparing the meal, setting the table nicely, maybe with flowers and candles, and taking one's time eating. From a reductionistic standpoint, it should not matter, because the nutritional value is the same. But we are not just machines that need only to tank up. We are beings with a soul and spirit and a meal is a sacred communion that doesn't only nourish us physically, but also spiritually. For a materialistic reductionist, a ritual for a plant is senseless, a relapse into childish behavior. One might as well write Santa Claus a letter or look for the Easter bunny on Easter morning. At best, psychologists might attribute a positive psychological effect, a sort of placebo effect, to such a ritual.

Such a reductionistic attitude leaves only room for the chemical ingredients, the dust. "It is not the ingredients, it is the spirit of the plant that heals us," said the Cheyenne medicine man Bill Tall Bull. For shamans and medicine people all over the world who can see beyond the material veneer, a ritual similar to the one described is self-understood. It is a technique to call the plant spirit near and ask for its help in the healing process.⁴⁵

How, for example, could one find a proper ritual for the teasel? How could one approach the spirit of the plant? Based on cross-cultural comparisons of shamanistic plant rituals, one might go about it in the following manner:

One takes time with the plant, sits down facing east, the direction of the rising sun, and opens all one's senses while regarding it. Before getting into this meditation, one can burn dried sacred herbs (prairie sage or mugwort, for example) and smudge oneself, "to clean one's aura" and make the soul receptive. One does not withdraw the senses inward as in yogic exercises but, rather, melts into the phenomenon, as one would with a beloved person. During this encounter, the plant should be the center of one's conscious focus. All mundane thoughts and daily worries are put aside, as one enters a "sacred dimension." At the same time that one takes up the beauty, the smell, and other sensual aspects, one should listen inwardly and observe quietly the thoughts and feelings that come floating by. After a while one might pick up a rhythm, a "heartbeat" and then a song, or a chant might come. Each plant has its spirit song—its *icaro*, as the Indians of the Amazon basin call it. Songs, chants, or sacred words revealed by the plant itself to the herbalist while he is in trance or meditation, is—as cultural anthropologists assure us—nearly universal.⁴⁶ The song or chant is a key to the plant, opening the door to its being.

After contacting the plant spirit and asking for its help, one can dig out the root or harvest the leaves. Herbs are best gathered in the days around the new moon (not the full moon) (Storl 2000:210). The best time of day is in the early morning, just before sunrise. At night, the various molecular compounds that have been synthesized in the leaves during the daytime are stored in the roots, thus the roots are at peak vitality at night, as evidenced by nighttime cell division and growth. As Rudolf Steiner puts it: the roots "breathe in" cosmic energy at night and breathe it back out during the day. It is therefore advisable to harvest the roots early enough, before the sap rises and energy is "breathed out" again during the day (Wachsmuth 1945:Chap. VI).

Since there is no taking without giving, one ought to leave a gift—a feather, a copper penny, some flour or grains, a flower, a swig of beer—as a sign of gratitude. And it goes without saying that one always leaves some plants standing so that they will continue to grow at the location.

Bill Tall Bull told me that it is the plant spirit itself that chooses to make contact with a human being. This happened to Heidi M. of Zurich. The young mother of two children had spent a weekend with an old Zen monk in the Jura mountains in France and found herself consequently in a highly perceptive state of mind. A mysterious tall, prickly, flowering plant she had not noticed before caught her attention. Later on, back in her yard in Zurich, she saw the same plant growing. A friend told her it was teasel, which some people use to make a tincture against borreliosis. Although she herself was not suffering from Lyme disease, she felt she should prepare a tincture from the plant. As she dug the roots, she heard, deep inside her, the following words:

*Karde mein, Karde fein,
lass mich Teil des Lebens sein!*

(Teasel fine, teasel mine, let me be part of life!)

That night the teasel plant appeared in her dreams. She took that as a sign to try the tincture. For five consecutive days she took some drops of the homeopathically diluted tincture. Later on, after she had heard of my work with the plant, she wrote me about the results:

The tincture had a definite effect. I felt more relaxed, happier and energetic. The nasty sharp “pins and needles” inside of me, which were directed against me, seemed to dissolve. The thistly plant seems to have something to do with auto-aggression. My husband confirmed this; he noticed that I was a lot less snappish and irritable. (letter dated September 29, 2006)

Testing the Teasel

Once back from Hungary, not only did I let friends and neighbors who suffered from Lyme disease try the tincture, but I tried it on myself. I tried it in the traditional way in which ayurvedic doctors, shaman healers, or homeopaths test or probe their medicine. Instead of using laboratory animals, coldly observing and analyzing their reactions or even dissecting them, the researcher takes the medicine himself, while carefully monitoring his own somatic and mental reactions. This makes sense, since our bodies are the most highly sensitive sensors available to us.

A friend of mine, very capable of introspection, joined me with the probing. He, too, was suffering from Lyme disease, which caused his joints to ache. To prepare ourselves we ate very lightly—fruits, vegetables, and grains—so that the digestive process would not interfere with our perceptions. Every evening for a week we swallowed a teaspoon of the bitter tincture. In our determination to be rid of the disease, we also chewed the alcohol-saturated roots. Then we secluded ourselves and quietly monitored the reaction of mind and body.

Every plant that one puts into one's mouth, chews, and ingests provides an immediate sensual impression. It can be sweet, sour, bitter, bland, juicy, slimy, astringent, salty, or whatever. Beyond that, if one is finely tuned, one can become aware of the specific kind of “life-energy,” or as Rudolf Steiner calls it, the “etheric force” present in the plant. This etheric energy expresses itself differently in each plant species. For example, if one draws the scent of mugwort flowers into one's nostrils, after having rubbed the flowers between one's fingers, one notices not only a camphor-like smell, but also an energy flow that goes into the head and “clears” it. The same thing happens when one ritually smudges with mugwort: an energy full of light reaches and opens up the crown chakra (*sahasrara*). On the other hand, with the *ashwagandha* or winter cherry (*Withania somnifera*), a nightshade plant of India, one notices a strong steady flow of etheric energy into the lower body, the reproductive organs. The European fleabane (*Erigeron acer*) reveals a different energetic pattern: upon biting into its leaves or flowers, one

notices first an unexpected peppery taste and a rush of energy that flows toward the heart, then toward the guts, and finally all over the body. Somehow the old rural practice of bathing children who had been sickened by some bad spell in decoctions of fleabane makes sense. The plant's energy would revitalize them. These are just three examples of the etheric dimension of plants. Each plant species has its own characteristic energy. Some are strong (pepper or, even stronger, chili pepper) while others are mild, some are pleasant and others unpleasant, some can be described as "dark" and others as "light." It would be an important future step in herbal medicine not only to research the molecular components of a plant but also its energetic or etheric aspects and how the plant affects our "energy body." This kind of research cannot be done by experiments with rats or monkeys. Human researchers must experience the nuances of the impressions the medicinal plant makes upon their physical and mental receptors. This is best done in groups of people who are trained in meditative self-observation and who can compare their experiences with each other and, of course, with very small amounts to begin with.

Now let us turn to the teasel and see what impression it made on us during the testing.

Physical impression. The first obvious impression is its bitter taste, to which the digestive glands respond reflexively.

Energetic impression. Independently from one another, my friend and I both noticed a flow of energy from the inside radiating centrifugally toward the periphery. It could also be described as though a hail of arrows of energy were shooting from inside the body outward through the skin. One had the impression that the germs of the sickness were being "pushed out" in every direction. I thought about the outer appearance of the plant: the prickly stem, the jagged toothed underside of the leaves, even the flower head bristling with spiny bracts, is a perfect picture of arrows growing from the inside toward the outside.

Anthroposophically⁴⁷ oriented botanists interpret spines, pricks, and thorns on plants, such as roses or thistles, as the expression of vital (etheric) energy that is held back or restrained. Were it not restrained and constricted in this way, this energy would continue to flow and grow into leaves or shoots. Such spiny or thorny plants, when made into medicine, will have a strong stimulating and energizing effect on the human body. That is, the withheld vitality is released and transferred to the human body (Pelikan 1975:222). Something of that nature is what we experienced during our investigation. It also felt as though the teasel tincture was able to free the energy in the body that had been bound up by the disease. This energy was then able to radiate out again and carry the pathogens to the outer borders where they could leave the body.

Perhaps this released energy radiating centrifugally can explain the slight skin rashes that Matthew Wood reported among some of his patients after trying teasel tincture. Such a temporary rash can be interpreted as a harbinger of convalescence. Practitioners of Chinese medicine report a similar occasional side effect with teasel preparations (*xu duan*), namely, occasional itching or reddening of the skin (Hempen and Fischer 2007:762). At the same time, it might also explain the cleansing and healing effect of

the plant with dermatological problems. Rudolf Müller, a therapist specialized in Lyme disease, claims that the main side effect of teasel tincture is the disappearance of senile speckles, or liver spots, on the skin of elderly patients. Of course, the plant used to be used for just that purpose in old European herbal medicine.

Speaking of spiny plants, it is interesting that cat's claw (*Uncaria tomentosa*), which uses hooklike thorns to climb through the Amazonian vegetation, is also considered an effective herbal in the treatment of Lyme disease. An acquaintance, suffering from the disease and wanting to get rid of it as soon as possible, dug up a bunch of what he thought were teasel roots. Not being versed in botany, he harvested by mistake the roots of thistles and proceeded to make a tincture. It actually helped him somewhat. Thistles are full of etheric energy and are an excellent liver tonic, supporting the detoxifying function of the liver.

Psychological impression. When the meditation with a plant are intense enough, one can go beyond the energetic (etheric) level, and come in contact with the “plant soul” or spirit. This is what appears to plant shamans in their lucid dreams, in visions, or on shamanic journeys. Our meditations, however, did not go deep enough to register any effect upon our psyche.

CHAPTER EIGHT

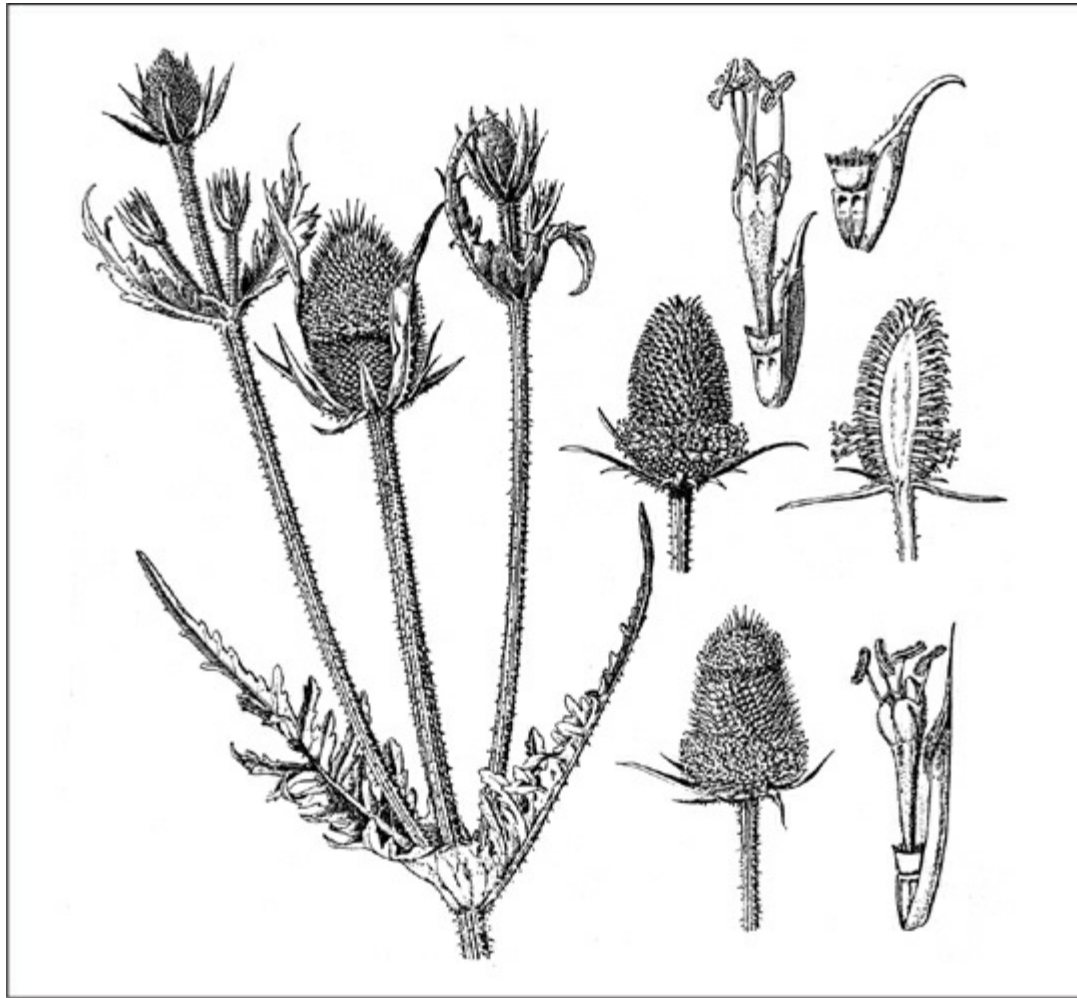
The Healing Plant, Teasel

Show us now, dear little plant, the power that God gave to you.

—A traditional herbalist's saying, used when digging a healing plant

The plant that helped me and has helped many others is teasel (*Dipsacus sylvestris*). Altogether there are twelve teasel species. The most well-known teasel (*Dipsacus fullonum*, *D. sativus*) was cultivated from wild teasel (either *D. sylvestris* or the southern European *D. ferox*) for the purpose of combing wool. (The dried flower heads were harvested for that purpose in the fall after the flowering.) Other kinds of teasel are the small, hairy, white flowering wild teasel, or shepherd's rod (*D. pilosus*), the thin teasel (*D. strigosus*), the eastern European cutleaf teasel (*D. laciniatus*), from which the white blossoming flower heads were used to filter wine in the Caucasus, and the East Asian teasel (*D. asperoides*).

I presume that all the different kinds of teasel have a similar healing effect on Lyme disease. In old herbal tradition and folk medicine dating back thousands of years, it has been generally assumed that plants of the same family have similar healing qualities. When speaking of plants, there is such a concept as family similarities. For example: all mallow species (*Malvaceae*) contain soothing, softening mucilage; the different kinds of goldenrod (*Solidago*) are all diuretic and have a healing effect on kidneys; labiates are masters of essential oils; the spurge family (*Euphorbiaceae*) produces highly irritant, acrid white sap; gentian family members are bitter; the various members of the rose family contain a great deal of tannic acid, especially in the roots. And so on: "Plants have, if you will, a 'family spirit' according to which each family specializes in its own chemistry, just as they develop their own kind of blossom" (Pelt 1983:151).



Teasel (Hegi, 1928)

Other Names for Teasel

An old folk saying is that if one knows the name of something, one has power over it. (For example, in the fairy tale Rumpelstiltskin, the young queen is released from the spell of the evil dwarf who threatens to take her baby unless she finds out his name.) Not only is the name a part of the whole being; it also reveals something about itself. The well-known Latin expression, *nomen est omen*, means the name is an essential omen, a sign telling something about the name holder. Commonly used healing plants are usually called by many different names. If one knows them all, one finds out quite a bit about the history of the plant, its healing qualities, and the role it plays in people's lives. Ethnobotanist Heinrich Marzell has recorded the following list of common names for teasel (Marzell 1972:142).

- Rough teasel, tumble thistle, weaver's thistle, carder's thistle, weaver's comb, hedgehog's head, fuller's thistle, fuller's weed, fuller's thorns, carding plant, clothier's brush, barber's brushes, sweep's brushes, gypsy's comb, and scratchy head. The Anglo-Saxons called the plant *wolvescomb*, *wolvesdistele* (wolf's comb, wolf's thistle), the French *peigne de loup* (wolf's comb), the Russians *vorsjanka* (wool comb), and the Irish *lus an úcaire* (fuller's plant). The name teasel itself comes from

“to tease,” which refers to “teasing” the wool. Brushes-and-combs is another name. Most of these monikers refer to the use of the dried flower head for working with textiles. The botanical name for the cultivated kind, *fullonum*, comes from the Latin *fullo* = cloth maker, fuller (Brondegard 1985:93).

Dried teasel heads were used to card wool and other textiles, aligning all the fibers in the same direction, thus preparing them for spinning. They were also specifically used to raise a nap on felt in order to make it into warmer fabric. In Europe, teasel was planted in fields for this purpose for more than a thousand years. The herbal chronologist Hieronymus Bock wrote in 1539 that weavers grew teasel in their gardens. The coat of arms of the English clothiers had three crossed teasel plants on it. Archeological finds suggest that weavers and fullers already used teasel in the early Iron Age.

- The Romans called the plant the wash basin of Venus (*lavacrum veneris*) or the bathtub of Venus (*labrum veneris*). The bowl of Venus, Venus cup, and lady’s washbasin are other names. These names originate from the fact that the leaves, which grow directly opposite each other and also into each other, form a basin that fills with rainwater and/or dew.
- In Transylvania the plant is called “freckle-herb” because the water from the Venus basin was used to treat freckles and blemishes. The herbalist Hieronymus Bock wrote in 1551: “The water found in the leaves drives away all yellow and brown blemishes underneath the eyes. Women know very well how to use it.”
- Many people think of it as a thistle because of its barbs. It has been called horse thistle or fuller’s thistle, and the German name *karde* is actually derived from the Latin *carduus*, which means thistle. An old English folk name is “Johnny-prick-the-finger.”
- The wild teasel (*D. sylvestris*) is also called wolf’s comb, brushes, and bottle cleaner. It was also called sparrow’s burdock or finches’ comb because not only do these birds like to eat the seeds but they were often caught in a trap made of teasel heads and horsehair. In some regions of Europe the flower heads were called “holy water sprinklers” as used in Catholic churches.

The Teasel Family

Teasel belongs to the family of teasel plants (*Dipsacaceae*), which include the genera of field scabious (*knautia*), devil’s bit scabious (*succisa*), and scabiosa (*scabiosa*).

Field scabious leaves were once used for chronic skin ailments, head scabs, and diseases of the lower respiratory tracts (Hiller and Melzig 2003:451). The herbal doctor Nicolas Culpeper (1616–1654) wrote of scabiosa: “A decoction of the root, taken for forty days, or a dram of powdered root in whey is—as Mattioli⁴⁸ wrote—of great help for those who suffer from rampant scabs, lichen or ring shaped skin fungi, even when these come from French Pox [syphilis].” Dr. Withering, known for his work with foxglove, describes a strongly dosed decoction of field scabious as “the imperial remedy

for Gonorrhea” (Coffey 1993:236).

The root of devil’s bit scabious (*Morsus diaboli radix*) was used in folk medicine to cleanse the blood, as a diuretic, vermicide, lung medicine, and externally for skin diseases. The name scabious goes back to Latin *scabies* = mange, as it was used specifically for this disease. The teasel plants, all of which have similar anti-inflammatory iridoids, are considered to have a general purifying effect.

Botanical Characteristics

Teasel is a weedy ruderal plant, which likes to grow near dumps, along train tracks, on the edge of footpaths, in pastures, in clay soil, or in bushy, sunny stands—often, in areas where natural vegetational cover has been interrupted. Of Old World origin, it grows as a so-called invasive weed all over North America. Teasel is not a thistle as is commonly believed, though it looks like a thistle at first glance, but the short spines on the stems and bracteate flower heads are really very different from thistle spines. They are not pinpointed like needles, but look more like sharp teeth.

Teasel is a biennial; in the first year it remains a rosette on the ground, gathering energy for the next year, in which it will shoot up as a long stalk—up to six feet long—before going into blossom. The oppositely placed leaves along the spiny stem grow together at the base, forming a small basin in which rainwater or dew accumulates. On the underside of each leaf vein of the leaf one finds a row of small “shark’s teeth” on the main rib.

In July and August the blossom begins to bloom, forming a ring of many tiny purplish-red flowers in the middle of the egg-shaped, cylindrical flower head. Each single flower is pipe-shaped and has four lobes. The ring of blossoms separates and continues to blossom upwards and downwards. The flower head attracts bumblebees, butterflies, and insects with a long proboscis. Each flower is surrounded by an epicalyx—long, dry, modified leaf (bract) with a hooked end. These bracts stay on the flower head long after the blossoming is finished. This makes biological sense because if an animal passes by and brushes the flower head, the bracts spring back elastically and catapult the seeds as far as a few yards. For this reason the plant also has the name “sling teasel.” In the fall and winter, goldfinches visit the seed deposits. The seeds do not germinate in the dark, but need to be exposed to light to do so. This is something that must be considered by a gardener who would like to cultivate teasel.

Signature

Teasel has a number of characteristics that, according to the old doctrine of signatures, indicate it is meant for the treatment of Lyme disease. This doctrine, found in nearly all native and folk traditions of healing, holds that herbs display tell-tale signs or marks that indicate how they can be used medicinally.

First, the course of the flowering process is very unusual. Countless small purplish-red

blossoms start to bloom in a ring around the flower head. The process begins in the middle of the egg-shaped flower head. As it progresses, the ring splits into two rings; one continues to blossom as a ring toward the top of the flower head and the other does the same toward the bottom of the flower head. This process brings to mind the expanding red ring (*Erythema migrans*) around the tick bite, the first indication of Lyme disease. In olden times this would have been regarded as a veritable signature.



Teasel's blossom ring

Second, the Latin name of the plant family, *Dipsacus*, comes from the Greek *dipsan*, meaning “thirsty,” because birds drink the water in the leaf basin. The water was also used to wash the face for beauty, to clear the eyes, and as a cure for freckles and age spots. Like other doctors of the Middle Ages and the Renaissance, Nicolas Culpeper believed in the “cleansing faculty” of this “Venus water.”

Matthew Wood sees the signature of the kidneys and bladder in the so-called Venus basin. Kidneys, the “Venus organs,” are vitally important in that they filter and excrete waste products and poisons. As mentioned earlier, kidneys also produce, according to Chinese medicine, kidney essence, which tones the kidney and liver functions, and nourishes bones, connective tissue, and cartilage.

A biologist might ask what the function of this water reservoir is. It is assumed that the plant supplements its nitrogen nourishment in this way, and/or that the water reservoir prevents insects, such as ants, from climbing up the stem and pillaging the nectar.



The Venus basin

Third, the subjective experience undergone during the ayurvedic self-test can also be seen as part of the signature. After taking the tincture and meditating on its physical and mental effects, my friend and I both had—completely independent of each other—the same subjective experience. We both felt as if sharp barbs of energy were shooting from the inside of the body out toward the periphery, from the inner organs toward and beyond the skin. It is as though one can feel the energetic configuration, which gives the plant its barbs and pricks. Other people who have tried the tincture have told me about a similar feeling.

Active Pharmaceutical Ingredients

Unfortunately, the active ingredients of teasel have not yet been thoroughly researched. The plant contains iridoids (pseudoindicanes), saponins, derivatives of caffeic acid, potash salt, inulin, bitters, and the glycoside scabioside. Scabioside is also found in other members of the family of *Dipsacaceae*. I had difficulty finding out more about this glycoside because it has been nearly exclusively researched only in China and Japan and the results were either encrypted or in Chinese writing. Some American authors mention a so-called lamine, an alkaloid, but it was not possible for me to find out more about it (Tierra 1999:307).

Planetary Affiliation

Mentioning planetary gods who rule over plants is not New Age rhetoric, but common medieval taxonomy, which classified natural phenomena and plants into seven

categories. The fundamental idea was that everything in the visible creation comes into being through the interweaving of the powers of the seven planets (for more information, see Storl 2000). This classificatory system was holistic in that it interlinks botany, the healing arts, and ecological and astrological aspects.

According to this system, teasel would be assigned to Mars because of the martial barbs and the red color of the blossoming ring. But, as Nicolas Culpeper, herbal healer and astrologer, also wrote, Venus and her cleansing properties are especially active in the plant. The signature of the water-gathering basin is very feminine and lovely, a Venus characteristic. The power of Venus bestows beauty, youth, and purity. The Venus characteristics also dampen the fiery wrath of Mars, moderating and alleviating infections and inflammations.



Venus

Traditional Healing Use

The root is diuretic, sudorific, and stimulates bile; it also has cleansing and digestive properties. It has been traditionally used for gout, arthritis, rheumatism, dropsy, hepatitis and gallbladder ailments, and, recently, for Lyme disease. Furthermore, it has been traditionally used for skin ailments like dermatitis, furunculosis, acne, and similar problems, especially when these come from dysfunctions in the digestive tract. Externally it was used for fistulas, eczema, warts, and scabs. The Greek doctor, Dioscorides, who served as a military surgeon in the army of the Roman Emperor Nero (54–68 AD) and who wrote the first herbal textbook in Europe (*De Materia Medica*), reported: “The root, ground or pounded with wine or vinegar until it has the consistency of wax salve, heals skin tears in the anus and hemorrhoids when applied inside” (Danzium 1610:157).

Hildegard of Bingen described teasel as having a dry and warm quality and a detoxifying effect on the human organism. The clairvoyant abbess of the twelfth century wrote in *Liber simplicis medicinae*: “The entire plant, dried and powdered and taken in food or beverage, will drive poisons from the body. And if someone suffers from rash or skin eruptions, he will be healed if he mixes this powder with fresh lard and anoints himself with it.” (This seems to be an early indication of belief that the plant could possibly help the body get rid of the endotoxins associated with borrelia spirochetes.)

Leonhart Fuchs, one of the founding fathers of botany, wrote in his *New Herbal Book* (1543):

The root is seethed in wine and then pounded until it is like a bandage which is laid over the fistula and the aching rectal area; this will heal it. One can also keep medicine won in this way in a clay pot for a year. Many say the afore-mentioned medicine will heal warts. The water found in between the leaves is considered helpful for unclear eyes when they are washed with it. This water will also get rid of spots [freckles, age spots] below the eyes, when they are washed with it. The small worms that can be found in the marrow of the teasel are good for four-day fever [malaria], wrapped and worn around the neck, as Dioscorides writes.

—FUCHS (1543: Chap. LXXXII)

Nicolas Culpeper wrote similarly: “The roots are cooked in wine and pasted onto warts and swollen bits (*wens*) in the ‘bottom creases of the body.’ ” The water of the Venus basin eases inflamed eyes (Culpeper 1999:181, 223).

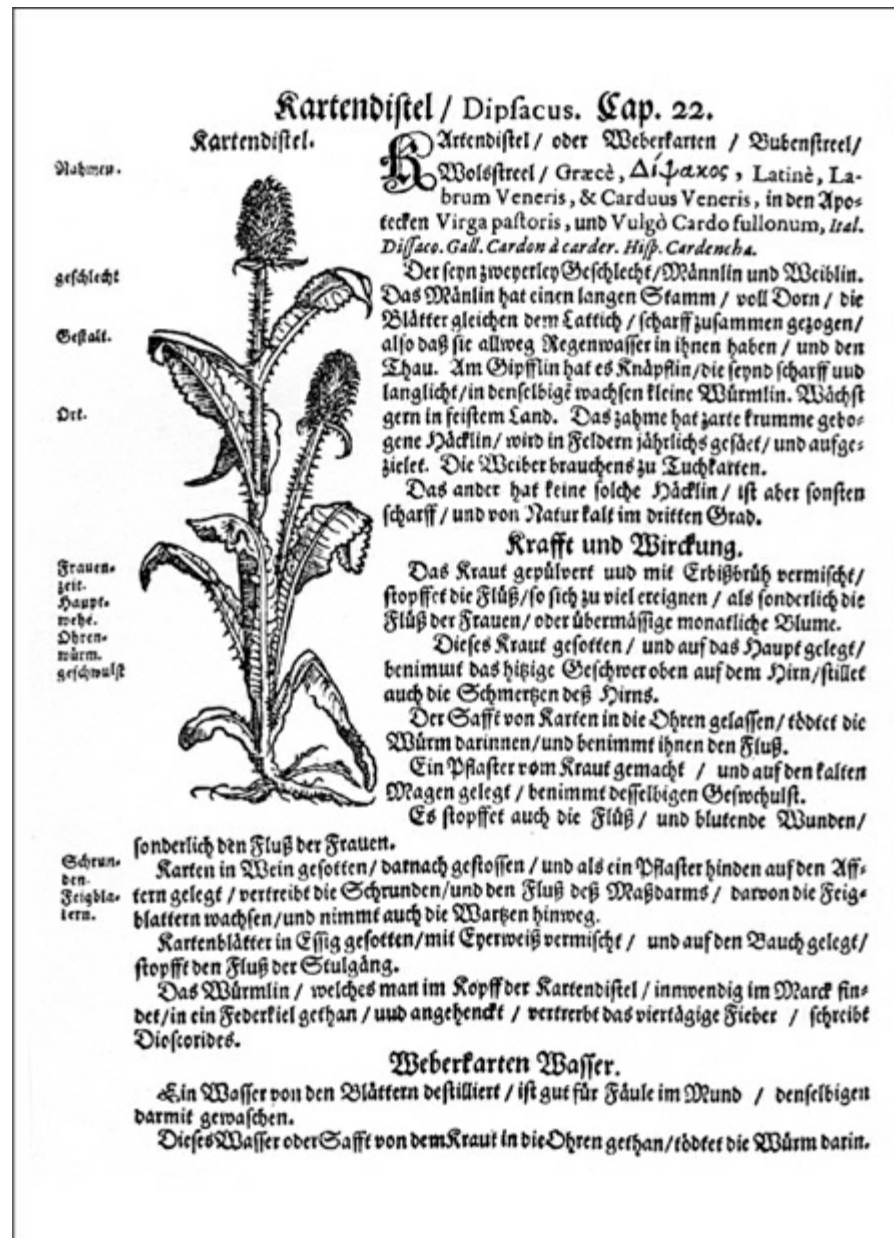
In modern times, teasel’s healing abilities have been all but forgotten. The well-known German phytopharmacologist Gerhard Madaus suggested: “*Dipsacus sylvestris* could possibly be used for tuberculosis (phthisis)” (Madaus 1938:1227). Otherwise the only other mention I found was in the Italian tome on medical herbs, *Le erbe* (Wurzer 1994:223):

The bitter tasting root stimulates digestion, is diuretic and sudorific, and in this way, it cleanses the whole body. The plant also helps with gout, arthritis, rheumatism, dropsy and obesity. Furthermore it is useful for skin diseases like dermatitis, furunculosis, acne etc., which are the result of problems with digestion. One can also use the leaves, which have the same effect.

Italian folk medicine knows of a decoction to increase urination and for cleansing the organism: 0.07 ounces of root substance (or leaves) in one pint of water is brought to a boil. Drink one small cup in the morning on an empty stomach.

The Austrian “herb pastor,” Herman-Joseph Weidinger, mentions a homeopathic medication, “*Dipsacus* D4 to D6,” made of the fresh, blossoming plant and used for chronic skin ailments, tuberculosis, and hemorrhoids. He names another household medicine made from the plant, a tincture common in cloister medication for the treatment of wounds, frostbite on the lips, freckles, and as a rub for gout: one part

chopped top part of the flowering plant is put in four parts alcohol, stirred and left in the sun for two weeks. The tincture is then sieved and thinned out with forty percent distilled water to sixty percent tincture, then put in a cool, dark place for storage (Weidinger 1995:175). Simply taking time to look at and meditate on the flowering teasel will have a healing effect, according to the priest Weidinger: “Thus the soul can soak up immeasurable healing value, if it thirsts for everlasting truth, for God!”



Teasel (*Lonicera*, Kreuterbuch, 1679)

Modern Chinese herbal practice uses teasel root (*xu duan*) in combination with supplementary herbs for *shenxu* (too little kidney essence) and for liver-blood-weakness, as described in the last chapter. The following is attributed to teasel in Chinese medicine:⁴⁹

- Inhibits and reverses osteoporosis
- Supports the healing of wounded bones

- Improves the immune system
- Blocks *Diplococcus pneumoniae* (streptococcus pneumoniae) bacteria
- Eases vitamin E deficit
- Kills trichomonas urogenitalis flagellates that befall the reproductive organs
- Strengthens the uterus

Teasel strengthens *yang*—the active, “masculine,” begetting, light, warm, filling aspect of the *ch’i* energy. Because it strengthens *yang*, the plant is used carefully when there is *yin* deficiency (*yinxu*) and “not enough fire.”

Ways to Use Teasel for Lyme Disease

Many methods of preparing teasel are available. Here is the basic information.

Tea. Bring one teaspoon finely chopped fresh or dried root or root powder per cup to a boil. Let steep covered for about one minute and drink on an empty stomach, three cups three times a day. Tea is a very good alternative for those who are sensitive to alcohol or for children (possibly with honey). The leaves of the teasel rosette, by themselves or mixed with roots, can also be used.

Tincture. The fresh roots—including the heart of the plant—are harvested, washed, and carefully chopped. (Do not peel the roots, as most of the active ingredients are in the skin.) Pack the chopped roots tightly into a jar and cover them with vodka or another similarly high-percentage alcohol. After macerating three weeks in a warm place, the tincture is ready. If waiting three weeks is too long, it is also possible to chop the fresh root in a blender and then cover it with alcohol. This can be taken the next day.

Another possibility is to combine the tincture with the tea, for example, by adding three drops of tincture to a cup of tea.

Powder. For small children suffering from Lyme disease, the roots are too bitter in taste and alcohol is inappropriate. A friend treated his three-year old with the pulverized dried root. She had a swollen red earlobe (the so-called *Lymphadenosis cutis benigna*) where the spirochetes had retreated, as they prefer a cool part of the body. He gave her one teaspoonful of powder a day, mixed with honey to make it more palatable. After about two months, the earlobe was normal again and his daughter had recovered her normal energy.

Water from the Venus basin. A doctor from Vienna told me about a patient of hers, a very sensitive young girl, an “indigo-child”⁵⁰ as she called her, with Lyme disease. Neither standard medical practice nor alternative forms of therapy brought any improvement of her condition. Assuming the water from the teasel’s leaf basin was energetically charged, similar to the Bach flower remedies, the doctor decided to use it in the treatment. Periodically she gave her small dosages to drink. The results were astonishing. The doctor regarded it as a miracle.

Dosage

In most traditional cultures standardized dosages of medicine do not exist. There is a good reason for that. There are no standard people, no standard illnesses. The dose is thus tailored to the type of person, his or her state of mind or psyche, physical size, weight, age, sensitivity, and so on. (A typical example of dosage is the Ojibwa Indians' method for determining how much calamus root to use: the root is measured according to the size of the first digit of the little finger of the patient.)

“An exact dosage is probably not that important,” writes H. Mettler from Zurich who makes a homeopathic tincture from teasel; rather, “it is the information contained in the medicine that counts.” Her experience is that the tincture energizes and helps overcome self-destructive tendencies.

In traditional Chinese medicine the following dose of the root substance (*Radix dipsaci*) is recommended for strengthening the functional field of kidneys and liver: as a root powder, approximately one-third ounce (10–20 grams); as a concentrated extract 0.5–2 grams (Joe Hing Kwok Chu, www.alternativehealing.org/xu_duan.htm, 2007), 6–18 grams (Suwanda and Tian 2005:105), 10–15 grams (Reid 1996:149), or 6–12 grams (Tierra 1999:307).

Matthew Wood sees the tincture based on his homeopathy-oriented view also mainly as “information” for the organism, and his dosage is logically quite low: three drops three times a day. For patients with a sensitive, delicate constitution that is surely the proper dosage. But for roughneck cowboys and cowgirls, tough loggers or truckers, and those who prefer steaks and whiskey to granola, it is probably not enough. In such cases a tablespoon three times a day is probably more effective. Any dosages of tincture or the teasel tea should be taken before meals on an empty stomach.

One method of ascertaining the correct individual dosage is to test the patient kinesiologically. In this way, one asks the body itself, or the unconscious, whether it accepts the medicine or the dosage. While the patient holds the medication in his or her hand, the kinesiologist measures the degree of resistance in the “indicator muscle,” usually the biceps or the upper thigh. This method is certainly unconventional, and some consider it pseudoscientific at best, but there are therapists who swear by it.

A medical doctor from Bremen suggests starting with a very low dosage of about three drops of the tincture three times on the first day, then progressively adding an extra drop each day, until one has reached thirty drops, three times a day. According to his experience, this gradual approach helps to make a possible Herxheimer reaction milder. At its peak, the process is reversed until one is back to three drops. Then the treatment is finished.

When and How Long to Take Teasel

The time of day for taking medicines—morning, midday, and evening—makes good sense. It is in harmony with cosmic and chronological rhythms as well as with the

cultural morphogenetic field or matrix, or, as C. G. Jung would have it, the collective unconscious of a society. In traditional Western healing and medicine, there are cultural patterns that go back to pre-Christian times (Storl 2000). Folklorists and medical anthropologists have repeatedly noticed that medicines tend to be more effective if administered in ways that are traditional within a society.

Borrelia spirochete activity peaks every month or twenty-eight days, corresponding to lunar rhythm. The duration of the cure should thus be at least one month. Rudolf Müller, a Lyme disease therapist, suggests full dosage for one month and then gradually decreasing the dosage over the next weeks.

Gathering and Harvesting Time

The root of the biennial plant is harvested in its first year in late fall, winter, or the following early spring, before the stalks shoot upward. When the stem grows, the energy of the plant also goes up toward the top, getting ready for blossom and seeds. The seeds probably also have healing properties, but that has not yet been researched. Teasel is an ancient healing plant, but knowledge of its uses is still in its infancy.

Once the plant blossoms, the roots die off and become woody. They no longer have any medicinal value. Occasionally I have had people tell me that they made a tincture from the woody roots and loudly proclaim that it didn't help. The woody roots of the plant in the second year simply cannot be used.

Note for gardeners. The impressive scabiose plant grows very well in gardens. It likes porous half-rich soil and sun or slight shade. It is frost resistant, readily seeds itself, and spreads quickly. The gardener should sow it in late fall or spring directly into the soil. Since it needs light for germination, the seeds should not be covered with soil, but lightly pressed a bit into the soil. Later, one should thin out the plants. According to old farmers' rules and good biodynamic agricultural practice, the seeds should be sown on a "root day," a day when the moon is in an earth sign (Taurus, Virgo, or Capricorn).

Blessings of the Forefathers

The fact that I came across the teasel plant surely had to do with my ancestors. Pre-Christian Europeans believed that family members who had gone on to eternity continued to take care of their progeny by sending them intuition and insightful thoughts or dreams from the beyond. In the children and the children's children their hopes and unfulfilled wishes were fulfilled. As with other native people around the world, they also knew that humans and their kin groups have allies and relatives in the animal and plant worlds. Anthropologists call them totems. These totems (from Algonquian *ototeman* = "his or her sibling relative") accompany a kinship group for generations. They are part of the family tradition. Totem animals and plants are honored, protected, and increased. They are holy and taboo; children are named after them and they decorate family emblems and flags.

When I discovered teasel as a healing plant, I realized that it was a holy plant for my ancestors on my mother's side. As far as anyone in the family can remember, they were weavers and cloth makers. They lived in the kingdom of Saxony and brought their woven wares on foot to the fair in Leipzig, thirty miles from where they lived. There is surely still a weaver in me. How else could I sit for hours on end typing? The typewriter or computer is my loom. The threads I weave are no longer physically visible; they are threads of thought. Still, they have to be carefully "carded" and "spun." Text and textile are even related words, from Latin *texere* meaning weave, braid, or assemble artistically. Though the "cloth" I "weave" is invisible, I hope it "clothes" minds and souls well and keeps them warm and protected in difficult times.

In the beginning of the nineteenth century, when Napoleon dominated Europe, the mainland clothiers experienced a boom. The continental blockade made it impossible to import the much less expensive British textiles. This gave local weavers and cloth makers a chance to modernize and expand. At the same time, the steam engine revolutionized cloth manufacture. The clothiers in our medium-sized town became very wealthy. Then came war, inflation, and economic crisis, war again, and ultimately the mismanaged socialist experiment of the German Democratic Republic. My grandfather, who had experienced most of this development, had owned a textile factory. In his old age, after the communist takeover, he lost all property to government expropriation, including his home, a villa his grandfather had built. He was not put out on the street, however, being allowed to rent a room in his former house. He neither cursed his fate nor clung to material things. When I visited him in the 1980s he commented repeatedly, quoting from Schopenhauer: "Everything we experience in life is illusion, is *imaginaire*. So why get upset?" We talked for days and hours about the textile industry, its development and decline, and calculated how much cloth had been woven in our factory over the generations—enough to reach to the moon and back.

One day he pulled out an old cigar box from a drawer. "Come here, I want to show you something important," he said, his eyes twinkling. I wondered, the last family jewels, perhaps? But when he opened the box, I saw only some old, dry, prickly weeds, flower heads. He pointed with his index finger, stained yellow from stuffing tobacco into his pipe, and said, "Teasel! A very special plant for cloth makers!" He explained how these flower heads had been used in the dressing machines used for napping up cloth. In contrast to steel or artificial materials, the tough but elastic barbs do not tear the fibers. It was not possible for man to improve upon the elasticity of the plant. Even in the modern times of steam engines and other machinery, these dried teasel flower heads were used on the rotating cylinders of the finishing machines in the factory. They gently roughed up the nap on woolen fabrics of flannel, felt, loden, and various coat and uniform cloth. I was amazed. Before that I had only known teasel as an ornament in dry winter bouquets.

In the course of our talking, we wandered through family history, family karma, and even the unspoken dark secrets that every family holds. To the latter he reckoned the illness of his own father, who seemed to have suffered from "blood impurities," that being a euphemism for syphilis. Why else did he go to take a "cure" every year at the

health spa of Bad Tölz? On hearing this, I thought about the long years of suffering, familial strife, and unfulfilled hope that such a tragedy entailed. It was a matter of shame that one did not discuss. And yet, as the medical scientist Albert Reibmayr wrote in his book (*Immunization in Families with Inherited Diseases*, 1899):

There is surely no one in Europe, given the four thousand ancestors in his ancestral line of the last 400 years, who has not been touched by this disease. Though the thought is unpleasant and one would rather it weren't the case, there is a hundred percent certainty, that one or more of his forebears were afflicted.

—BÄUMLER (1997:113)

Later on, after my experience with Lyme disease and the teasel cure, I wondered whether old karma was fulfilling itself, if my great-grandfather's spirit was guiding me to find a solution to the problem of spirochete diseases. The mystical poet Novalis wrote, somewhere, that the afflictions and agonies of past generations find their resolution in the following generations. Of course, such statements are beyond the scope of science. They cannot be tested empirically. Nevertheless, they might still be true.

CHAPTER NINE

Supportive Therapy During the Teasel Cure

The goal is to show patients how they can take matters into their own hands by giving them a major share of the responsibility and supporting them in finding internal and external freedom.

—JÖRG REINHARD, MD (1993)

Systemic hyperthermia is deliberate heating of the whole body to achieve an elevated core temperature for therapeutic purposes.... The goal of systemic hyperthermia is to imitate the beneficial effects of fever. Typically, the body temperatures of 41–42°C are induced for 1–2 [hours], or alternatively 30–40°C for 4–8 [hours].

—R. WANDA ROWE-HORWEGE, University of Texas Medical School (2006)

Our mind tends to simplify things; it prefers to separate the world dualistically into good and bad or black and white, leaving out the nuances in between. Modern medical thinking is also guilty of simplification: there is a tendency to look for a single healing ingredient and overlook the fact that usually a whole orchestra of elements works together to create the healing melody. There is also a tendency to look for just one cause of the disease: the germ that can be eliminated with a single medication, such as an antibiotic.

By now, however, it should be common knowledge that sickness can hardly be reduced to a single causal factor, such as infection by a germ or a virus. There are nearly always a number of disturbances that lead to an ailment. Medical science considers sickness as a category of biology but that is also a case of reduction and simplification. By reducing diseases to biological functions, medical scientists close their eyes to the fact that diseases develop within a field of socio-cultural, economic, and environmental circumstances. Conditions of work, the kind and quality of the food eaten, harmful substances in the drinking water, air, and food, hygiene, lifestyle (disorderliness, lack of sleep, lack of exercise), chronic stress, emotional problems, inner conflicts, fear, hate, envy, and many more factors prepare the ground on which sickness grows. For that reason it is appropriate to look for health restoration on all levels—physical, mental, societal, and spiritual.

And just as there is no single causal origin for disease, there is no magic pill, no single miracle drug, that can eliminate a disease with a single stroke. This also applies to teasel preparations as a cure for Lyme disease. It is important to support the healing process in many other ways as well. The teasel cure works best when supported by a host of natural therapeutic measures. Monika Falkenrath emphasizes that it is a good

idea to combine as many natural methods as possible. One should work on all levels—physical, mental, and even spiritual—she claims, thus creating what she calls a synergistic effect (synergie: Greek *Syn* = together, *ergon* = work).

In the following paragraphs are natural methods that support the teasel cure.

Hyperthermia and Balneotherapy

Many sufferers of Lyme disease have had very good results solely from taking teasel tincture or drinking teasel tea. However, it is much more effective to combine the tincture or tea with heat therapy. The Caribbean Indians cured syphilis and similar spirochete diseases (such as pinta and framboise) with heat therapy and herbal teas. (See [Chapter Twelve](#).)

The Greek philosopher Parmenides proposed heat therapy as far back as a half a millennium before the Christian era: “Give me the power to create a fever and I will cure any disease.” In earlier times, our own ancestral grandmothers, who used to care for the health of the families and animals on their farms, were well aware of the healing power of heat. They knew which herbal teas (see the Appendix) would cause sweating, such as elderberry and linden blossoms, thus flushing sickness out of the body. Sick people were often wrapped in blankets and laid into the bread-baking ovens before these had completely cooled down in order to sweat out the sickness. The ovens were usually just about the length of a grown person, and the hot ash was pushed to the back of the oven before the patient was placed in it. Sick children and infants would be wrapped up and laid in the cooling ashes or the sand of the baking ovens “until they were well done.” The effect was similar to the sweatbath or the sweat lodge of the Native Americans, or the Russian, Turkish, or Japanese baths. The belief was that the bad spirits that caused sickness could not withstand heat. The fact that similar heat cures were practiced in northern Europe can be concluded from early medieval church decrees, which condemned the practice as pagan superstition. In heathen times, northern Europeans saw the oven as a symbol of the mother’s warm womb, the portal to the realm of the Earth Mother and the ancestral spirits. The diseased person went “back to the womb,” in a sort of *regressus ad originem*, in order to be “reborn” into a new state of health.

Native American sweat lodges share similar symbolism: the lodge is the womb of the Earth Mother. Sick as well as healthy people sit naked inside the lodge in a fetus-like position and sweat the “bad influences” out of their bodies. Eventually they crawl out, back into the everyday world, cleansed, renewed, and blessed with new visions. *Oinikagapi*, “the place where one renews life,” is what the Lakota call the sweat lodge. The hot womb of the Earth Mother is a sacred place, beyond time and space; it touches eternity. Indeed, while sweating one loses one’s sense of time. It is a place of prayer. Mighty gods and spirits, who have command over healing powers, come and go in this sacred space. Not only is the nearly intolerable heat in itself healing, but also the healing herbs that are strewn onto the glowing hot stones: mugwort, or prairie sage

(*Artemisia tridentata*, *A. ludoviciana*), sweet grass (*Hierochloa odorata*), cedar (*Juniperus ludoviciana*), or osha (*Ligusticum* spp.). These healing herbs help the soul to relax, become receptive, and expand its consciousness beyond daily matters so that one can see all of life in a greater context and perhaps even see in a vision the best way to go on with one's life after the sweat lodge.

Sweat lodges and steambaths are a legacy from the Stone Age hunters and gatherers of the northern hemisphere. The North American Indians merely kept one of the oldest forms. Russian steambaths, Scandinavian saunas, and hot baths in Japan are all varied forms of the original Paleolithic sweat tent. For the Aztecs the sweatbath, *temazcal*, was one of the most important therapeutic facilities. It was dedicated to Tonantzin, mother of the gods and the people, mistress of healing plants and healers. She was also the guardian of all bodily excretions. The cave-like structures into which one crawled to sweat were heated by fire from the outside. They were regarded as her womb into which one went in order to heal sicknesses such as arthritis, gout, skin rashes, venereal diseases, and other painful ailments.

How does man-made heat therapy work? Natural fever, an important defense reaction of the body against infections, is imitated. The main aspects are described below.

- The heat **causes sweating**. The pores are opened and metabolic toxins are flushed out of the body.
- The heat **encourages blood circulation**. Muscles and other tissues are better supplied with blood and oxygen; thus, toxins are more easily transported out of the body.
- The heat **stimulates the immune defense system**. Bacteria, fungi, and viruses, especially flu and human immunodeficiency viruses (HIV) cannot easily survive heat. New research in the United States has proven that tumor cells begin to die off when exposed to heat above 107°F (42°C). In experiments using heat, cancer patients had a 25–35 percent better chance of healing (Moss 1992:377).

Julius Wagner von Jauregg (1857–1940), professor of psychiatry and nervous disorders in Vienna, took the words of Parmenides to heart. In 1883 he noticed that some of his patients suffering from progressive paralysis, which results from neurosyphilis, experienced improvement of their condition after bouts of fever. This led him to experiment with artificially induced fevers. One of the ways of inducing fever was to inject the patients with malaria germs. This practice of “driving out the devil with Beelzebub” was especially successful with syphilis patients. One-third of the patients were completely healed, for another third a long remission followed, and the other third experienced no improvement at all. After this radical cure, he proceeded to treat his patients with standard malarial remedies, such as quinine drugs. (Bäumler 1997:233). The “fever professor” received the Nobel Prize for his discovery in 1927.

A WARNING MESSAGE

Attention! Systemic hyperthermia is not advisable for people with a heart condition or circulatory problems, such as thrombosis, arteriosclerosis, or high blood pressure. Also, tuberculosis, epilepsy, and diabetes patients should consult with natural healers or their doctor before trying heat therapy. Partial baths or limb baths may be tried for short periods of time, however, but only after consulting with a qualified professional.



In the 1930s researchers discovered why malaria was therapeutic for syphilis patients: the spirochetes die during the recurrent fever attacks of 107°F (42°C). Since Lyme disease is a spirochete infection very similar to the syphilis spirochete, it is logical that artificial fever, in the form of hyperthermia, would have a therapeutic effect. For such a treatment, the bath water should be gradually raised to a high temperature. Each individual has a different heat tolerance, and the water temperature should not exceed 42°C. The body itself doesn't reach quite as high a temperature as the surrounding water. One should use common sense and only heat up to the degree that the patient can tolerate. A time span of exposure to the excessive heat ranges from fifteen minutes to half an hour. In any case, any artificial fever weakens the spirochetes. In Japan, people are more accustomed to and tolerate much higher bath temperatures than do Westerners. They manage to stay in for quite a long time (typically, more than thirty minutes) because they have been used to this kind of bathing since childhood.

Selective heating (local hyperthermia) of affected joints with hot packs (hot mashed potato packs or peat moss, for example) can be very beneficial in treating aching and dysfunctional joints due to Lyme. Hot mudpacks, composed of ground-up basalt tuff, volcanic mud, or ash, and paraffin packs are even better because they can be heated to a higher temperature, yet they do not feel unbearably hot to the touch. In this manner, the heat can penetrate more deeply into the tissue and be applied for a longer time.

BALNEOTHERAPIES—MANY FORMS OF BATHS FOR MANY USES

Sauna

The hot air bath achieves very high temperatures (60–90°C), although it is not quite as effective as moist warmth because the body cools off due to the natural reaction of sweating. Between rounds in the sauna, taking a cold shower or a dip in a cold basin activates the circulation. In some countries, the body is energized by striking oneself with birch branches between sauna rounds.



Sweat lodges of the Navajos and the Caribbean natives

Hot springs

Thermal baths and hot springs have been known to be healing since time immemorial. Hot springs near Aachen in Germany, Vichy in France, Ourense in Spain, Bath in England, Baden in Switzerland, Calistoga in California, Ojo Caliente in New Mexico, and in various other places have had an excellent reputation for their healing properties, even for very severe diseases. This was known even long before the Romans used hot baths. The Celts thought of thermal baths as the cauldron or womb of the Great Goddess. The sun, in its aspect as the healing sun god, Belenos or Grannos, protected these hot spring areas; the sun itself was seen as the source of heat for these springs, heating them up as it passed underneath the earth on its nightly journey. For the Celts, fire and water constitute the primordial elements from which all else was created. In the hot springs, the sick person is exposed to the healing effect of the primordial elements.

Sweat lodge

The Native American sweat lodge is historically and culturally related to old Germanic, Slavic, and Siberian steambaths. In all, hot stones are doused with water and heal-all herbs are used. Rocky Mountain Indians use prairie sage, wild bergamot, beebalm (*Monarda fistulosa*), cedar, or purple cone flowers as part of the sweatbaths; the Potawatomis use water in which branches of witch hazel (*Hamamelis virginiana*) have been steeped in order to ease muscle tension; and the Menominees put hemlock tree needles (*Tsuga canadensis*) on the hot stones in order to cure the flu. Participants in a sweat lodge drink herbal teas to increase sweating: the East Coast Indians drank blood-purifying sassafras roots for increased sweating, the Iroquois use elderberry blossom tea and a tea made from the scarlet beebalm (*Monarda didyma*). In both New and Old World, the body of participants was rubbed with healing herbs and/or struck with birch branches to drive out impure spirits and stimulate circulation. After the heating phase, the individuals shower with cold water or rolls around in snow. This closes the pores and gives the immune

system an additional beneficial shock.

Schlenzbaths

The Austrian midwife Maria Schlenz developed this bathing method. The bath, lasting for about an hour, begins with a water temperature of 95°F (35°C) and is gradually heated to 104°F (40°C) or even 113°F (45°C). The patient's head remains out of the water. The patient should drink a lot before bathing to avoid a dizzy spell. The skin is brushed with a fairly stiff brush to stimulate circulation. Professional accompaniment is absolutely necessary with these baths. With her baths Maria Schlenz treated ailments like rheumatism, cancer, and typhus, as well as Lyme disease-related recurrent fever, which are all difficult to cure. Important: No cold water interruptions with a bath of this nature!

Hot sand baths

Sand baths are good for patients with circulatory problems or heart problems. Except for hot sand areas in nature (such as on sunny tropical beaches or natural geothermic spots), it is difficult to do a whole-body sand bath. For that reason one confines them to hand- or footbaths. The sand is heated to 140°F (60°C) and then the patient simply puts his hands or feet into the sand for 20–30 minutes or until the sand cools off. Moving the fingers or toes during that time stimulates circulation.

Hay-flower bath

The hay-flower bath is essentially a hot herbal bath. Hay flowers (*Graminis flos*) are the seeds and flowers that remain on the floor of the hayloft or barn after the hay has been fed to animals. These remains are swept up and used to make an infusion or decoction, which is added to the bath. Such a bath stimulates digestion and blood circulation, and is soothing (for example, for fibromyalgia.) The hay from mountain meadows, rich in various herbs, such as the sweet-smelling vernal grass (*Anthoxanthum*), clover blossoms, and the panicles of various grasses is especially effective. The warming quality and healing power of hay flowers was known to the ancient Celts and was rediscovered in recent times by Father Sebastian Kneipp.

To prepare such a bath, add a large handful of hay flowers to a gallon of boiling water; let it steep thoroughly and then pour it into the bath water.

Other herbal baths

- Yarrow (*Achillea millefolium*) tea is a good additive to a hot bath. It supports liver and gallbladder functions, relaxes the muscles, helps reduce blood clotting, is diuretic and sudorific, flushes out toxins, and is antiseptic.
- A horsetail (*Equisetum arvense*) decoction⁵¹ can be added to a hot bath. One handful to one quart of water is boiled for about 15 minutes and then added to the bath water. It is good for joints and for arthritic conditions associated with Lyme, rheumatism, and weak or ailing connective tissue. It helps remove urates, uric acid, and cellulites from the system. Horsetail is rich in silicic acid (ninety percent of the ash consists of silica), which strengthens connective tissue, bones, and cartilage.
- Handbaths and footbaths in various herbal teas were the specialty of the great French herbalist Maurice Mességué. The palms of the hands and the soles of the feet are very sensitive and respond to numerous stimuli, transmitting reflexes to all major organs. Various herbs in hot herbal foot- or handbaths provide such stimuli to specific body areas; they also promote the excretion of different toxins.

With all the baths mentioned here, except for the sauna, which has its own rules, it is advisable to bathe for about 15–30 minutes at a time, either daily or every two to three days for a period of one month.



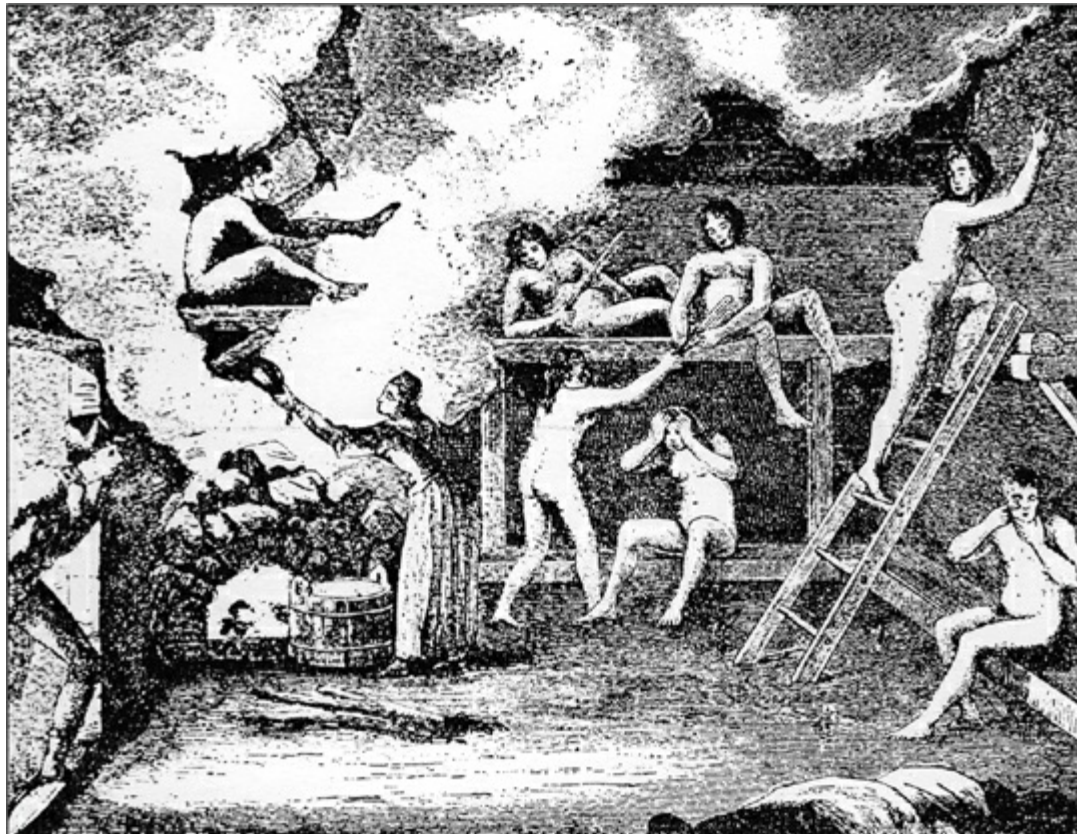
Even a simple moist, hot compress is soothing. Some have even found comfort from heating up a painful joint very carefully with a hair dryer.

Other worthwhile remedies for the afflicted joints of patients suffering from Lyme arthritis are crushed Savoy cabbage leaves wrapped around the joint and secured with cloth and an elastic bandage. Footbaths of horsetail tea prepared as described above and alkaline salt footbaths are beneficial, as they lower the acid levels in the body, alleviating arthritic pain.

Other things to consider during sweat cures include the following.

- It is beneficial to eat lightly or even fast before a sweat cure, or at least empty the intestines and the bladder.
- It is helpful to support the sweating by drinking sweat-inducing teas, such as yarrow, linden blossom, or elderberry blossom tea. One should drink plenty of warm herbal beverages (no cold drinks or alcohol!) while sitting in the hot baths.
- Copious sweating drains the body of electrolytes, the ions of salts and minerals. Try

to replace them in your diet with natural, chemically unadulterated salts to restore the balance. The salt can be added to fruit juice. Iodine-enriched or fluorinated salts are to be avoided, however. Aluminum is added to make salt pour well—“it pours when it rains”—even when the atmosphere is moist. As aluminum tends to deposit in the nerve synapses in the brain, it is suspected as a factor in Alzheimer’s disease. Natural sea salt or purely natural mineral salt is the best. The twelve different kinds of Dr. Schuessler’s salts nourish tissues and cells, and can be considered helpful. The common belief that salt will raise blood pressure and damage the kidneys has been refuted by recent scientific studies (Pollmer and Warmuth 2003:262).



Finnish sweatbath (woodcut by Retzius, Stockholm, 1881)

- The best time for hot baths is in the evening. After bathing, one should go directly to bed in order to continue sweating while well covered.
- It can also be very beneficial to take a quick cold shower right after the hot bath to close the pores and help the veins retain their elasticity. But people who are seriously ill would be advised not to expose themselves to this cold shock until they feel better and it is easier to do. (Any kind of cold draft is detrimental until the body is back to normal temperature, so one should wrap up well after the baths.)

Nourishment during Treatment

The fundamentals of a healthy diet were already mentioned in [Chapter Five](#). There seems to be some truth in the old German adage, “Sour food makes for mirth, however

sweets may taste good at first, but ruin the appetite and good humor.” Dr. Orth states that our blood should have a pH level of 7.25–7.35. Bad nourishment (too much protein, fast foods, and industrial sugars) lowers the pH of the blood, making it more acidic. The body odors of a person who is stressed and whose blood is acidic are likely to attract more ticks and mosquitoes. Acidity also fosters microbial germs, fungi, and bacteria. “Almost every serious disease is accompanied by hyperacidity of the blood and tissue. This is true of infectious diseases as well as for chronic diseases like rheumatism, arthritis, cancer, leukemia, and AIDS” (Orth 1998:28). He recommends a diet of mainly fresh and natural foods—a lot of fruit and vegetables, sour foods such as pickles, sourdough bread, and even a frequent swig of pure apple cider vinegar.

According to Monika Falkenrath, who also changed her diet to help cure Lyme disease, silica-rich healing earth should also be a part of the new diet (Falkenrath 2003:120). Such healing earths containing silica enhance immune resistance, strengthen skin and hair, bind tissue and vascular walls, stabilize bone tissue, cleanse skin and sensory organs, especially the eyes, and help with eczema, psoriasis, and fungal afflictions. These beneficial effects are due to the fact that silica is able to transmit cosmic light and warmth energy to living organisms. A number of well-designed studies by biodynamically oriented researchers have been able to provide substantial proof to this effect (Storl 2000:154).

A lot can be said about the therapeutic properties of food. What is interesting here is the light diet administered by the Caribbean and South American healers to those suffering from syphilis as they underwent the cure of sweating and drinking guaiacum decoctions. They were only allowed to eat white foods—white maize, manioc, palm hearts, coconut, white squash, and so on. Except for white meat from fish, any red, bloody meat was taboo. Salt and other seasonings were also left out of the diet during the cure (Pfeiffer 2007:29). What is the cultural context and meaning of such a diet?

In South America, as in other places, the sick person does not participate in normal daily life and routines. The patient lies in a hut and does not partake in everyday activity. Feverish, and often in a state of daze or stupor, this person is in an in-between state, partially in the “other world,” the realm of the spirits and the dead. He experiences a crisis, a concept derived from the Greek *krinein*, meaning to separate, to divide, decide, or select. In the delirium caused by fever, the mind begins to become aware of transcendental beings wafting through one’s psyche and leaving an imprint on the body. The patient himself begins to feel as though he is part of the other world. Indeed, he may actually die and go all the way over to the other side. Young people undergoing initiation (rites of passage) into adulthood experience a situation similar to that of the sick, in that they find themselves in a crisis and are temporarily separated from the rest of the community. The child in the person ritually “dies” and is transformed before re-entering society. Between ritual death and rebirth both the sick person and the youthful initiate live separated from society and are in a state similar to the spirits who are outside of the daily life of the community. Both have difficult and painful ordeals to go through and, sometimes under the controlled influence of consciousness-altering plants, they learn about the world of the gods and spirits. During

this time they either fast completely or they eat light meals made up only of white foods—spirit foods. The spirits of the dead tend to be seen as pale or whitish in hue, and it is deemed correct to feed them such white foods. Red is the color of life. Spirits do not have red blood and are not fertile, that is, they do not menstruate. Spirits do not have the red glow of living fire, but are like cold white ash.

In South America candidates for the role of a shaman also live apart from the community, practicing abstinence and eating only white “ghost food” until they are finally reborn as healers and full-fledged shamans. In this manner, they become specialists who know the spirit world and are able to find the souls of the sick who have gotten lost in the spirit world and bring them back to the world of the living. The Kogi Indians in the high mountains of the Sierra Nevada in Colombia are ruled by a priestly caste called the *mamas*. The *mamas* are chosen for their role even before they are born. The mother-to-be is already required to eat only white food, such as white beans, white potatoes, and white caterpillars. The child is raised in a cave separated from the community and after being weaned at the age of four, he or she is also given only white food to eat. In this way, the child remains continually in contact with the spirit world, *Aluna*. The *mamas*, who clothe themselves in white cotton robes, are extremely clairvoyant. They communicate directly with the gods and ancestors and have an unbroken transpersonal memory that spans generations and goes back hundreds of years (Ereira 1993).

The dead are pale and their bones are bleached white. However, semen is also white and contains within it the fire of life. Mother’s milk, which nourishes the newly born, as well as the reborn, is also white. Thus the color of white stands not only for death but for transformation and new beginning. Thus, within this cultural and metaphysical context, white foods are considered appropriate to the transformational process of healing. The wealthy Spanish syphilitics who could afford the expense and time to sail to America to cure themselves of the dreaded “French disease” (syphilis) were subjected to a similar process of transformation by their Indian healers. They also underwent a *rite de passage*. For six weeks or forty days they drank decoctions of guaiacum, ate only white foods, and sweated copiously. During their stay in the extremely hot sweat lodges, conceived of as the primeval womb of Mother Earth, they rested in hammocks, but otherwise were subjected to strenuous activity such as fencing and wood chopping, to make them sweat even more. Nicolaus Poll, personal physician to Emperor Charles V, reported in 1517 that some 3,000 Spanish syphilitics were cured in this way (Griggs 1997:36).

It is a common South American and Caribbean native practice for initiates to eat only white food. Other cultures, such as in Papua New Guinea and Sub-Saharan Africa, know this also.⁵² Similar to ritual vegetarianism or food taboos, one can interpret such diets as a form of asceticism or shamanistic technique. In combination with sexual abstinence, retreat into solitude, and/or the use of mind-altering plant drugs, food is used to influence consciousness in a specific, intended way. For the therapy of Lyme disease this is only marginally interesting. The most significant point here is that eating a bland, mainly light diet might be advantageous as part of the cure.

Sensible Lifestyle

Enough was written earlier in this book about supporting well-being with a healthy lifestyle. Here are some precautions to take, while completing the four- to six-week cure involving hyperthermia and teasel preparations.

- **Avoid stress** as much as possible. It has actually been shown that constant stress makes the blood hyperacidic, lowering the pH value.
- Except for an occasional glass of wine or a beer, it is best to **avoid alcohol** during the cure.
- Any activity that **robs vitality**—or, by Chinese thinking, lessens the kidney *jing*—should be avoided. It is best to abstain from sexual activity or excessive, exhausting sport.
- Recreational **drugs** of any kind should be avoided during the cure. In many cultures drugs are used to expand consciousness or to induce dreams and visions. In the proper social and cultural context that can certainly be a blessing. However, visions and psychedelic flights require vital energy, which is drawn from bodily reserves. It can be likened to a flame that needs to draw on the wax of a candle in order to burn. During the cure it is important to bundle and conserve one's life energy, not burn it up.
- It is a very good idea to live in accord with the **natural rhythms** of the cosmos. Sleep and wake in a regular rhythm and, except for times of fasting, eat regular meals. Rudolf Steiner once said, "Rhythm replaces strength." Our bodies have natural biorhythms, which should be considered in support of overall health, especially at a time of health crisis.

Natural geomantic factors, geomagnetic disturbances, and underground water currents can produce, as *feng-shui* advocates claim, stress for the body. Dr. Orth uses a so-called biotensor, a kind of modern divining rod, to test the location of the beds of his patients and often he suggests moving them to another more optimal position (Orth 1996:41). Artificial fields and currents emitted by digital wireless systems, high-power transmitters, cordless phones, overhead power lines, modulated microwave radiation, transmission towers, and even relatively weak magnetic fields, the so-called ELF (extreme low-frequency fields), can have severe effects on health when living organisms are exposed to them for long periods of time. Though this is denied by commercial interests, independent researchers have repeatedly shown that these electromagnetic fields constitute health risks. These risks include lowering the efficiency of the immunological response, thus increasing the cancer or leukemia risk and chronic fatigue. These fields constitute stress for the cells and have been experimentally shown to have a toxic effect on our genes. Obviously, such subtle influences will decrease the effectiveness of the teasel-hyperthermia cure.

Some Feedback about the Teasel Cure

I have received a lot of positive feedback in the form of letters and e-mails after publicizing my own personal experience with teasel. Here are some of them.

Thank you for making me acquainted with teasel. It helps many of my patients get well again. I use the European and the Chinese teasel as a spagyrically prepared tincture (kinesiologically tested).

—DR. RENATE L., MD

I had been suffering for the last three years from chronic borreliosis, rendering me incapable of continuing my work as a bio-physicist. The infection affected the lymph system, clogging it and leading to severe eczema. The effect on the nervous system was even worse, leading to lapses in memory, especially short-term memory. I have gone through several courses of antibiotics as well as trying various alternative curing methods. When I finally took the teasel tincture, the effect was immediate and the result can only be described as a miracle. I want to thank you; you have done a great service to the healing arts. Here are some thoughts regarding Lyme disease:

- 1. Lyme disease, and especially neuro-Lyme disease, is a disease that one cannot heal by simply killing the pathogen with an antibiotic. It encompasses the entire body and alters it after having been in the body for a certain amount of time. Only through stimulating endogenous self-healing forces is it possible to reverse such a multi-system sickness. This self-healing gets started through healing plants or, for example, through specific acupuncture. In the last analysis the healing happens through the will of the body; of course, this is accompanied by the psyche and spirit of the person.*
- 2. When the borrelia take on the encapsulated cystic form or when they retreat into tissue (such as cartilage), which is undersupplied with oxygen, antibiotics do not reach them or penetrate the cell walls. They retreat quickly to such areas after an infection. In the blood they usually get intercepted and destroyed by killer cells, unless the immune system is very weakened.*
- 3. Allopathic medicine has failed in the battle against late forms of Lyme disease, as proven by thousands of reports on patients who were treated with antibiotics (see respective Internet forums). It is only successful when the infection is very new. Often, doctors are not able to observe the outcome of their treatments because when one treatment fails, the patients tend to go from doctor to doctor in an attempt to get better. For this reason doctors are usually unable to observe patients over a long period of time, which is essential for ascertaining whether their therapy has been successful.*

—DR. ULRICH BERTSCHE, cellular biologist

Dear Mr. Storl,

After many antibiotic infusions and recurrent pain and paralysis now teasel tincture. I take three full tablespoons a day, which is wonderfully bitter like medicine should be....

In the first week the symptoms got much worse. I could hardly walk and my feet burned which was almost unbearable.

Now, in the second week, a remarkable improvement. No more pain, or only minimal pain in the joints. The eyes clear and not inflamed.

First of all, thank you for your book and the courage that it gave me.

But I am writing for another reason: Additionally I am doing a therapy with a gestalt therapist and have consciously confronted pain for the first time—pain that I have had in me my entire life.

If we do not experience pain in a natural way, tears, crying, or mourning, our immune system gets weakened because it is constantly occupied with suppressing pain.

Our society is surely one of addiction, greed, and superficial pleasure, in which sadness has no place.

I grew up in South America and in the Taita tradition they have the following saying: “If we don’t live out our pain, it will get into our limbs and joints.”

I wish you a good time, love and strength.

—DIRK from Fulda

About two months ago I ordered a bottle of teasel tincture for a patient—a dog. I am a veterinarian.

Thanks so much once again! In the meantime, the dog is a picture of vital life itself, it is doing better than it ever had!!! We are very enthused!

Now my colleagues here in the clinic plan to treat the animals with teasel tincture also.

—DR. CLAIRE W., veterinarian

Dear Mr. Storl,

First of all many, many thanks to you for writing about the teasel treatment—and for your other wonderful books, too. The teasel treatment made me into an almost-normal person again after an acute case of Lyme disease. First I was treated with twelve different antibiotics and cortisone compounds and I ended up in isolation in a clinic for nerve diseases in Munich. That turned out to be a saving grace, though, as the doctor there took me off of all medication. The pharmaceutical “brew” seeped out of open sores from head to foot. The sores were up to 2 inches wide and close to each other and the skin between them itched terribly. The skin was open for months and afterwards my whole body would itch,

even after numerous detoxifying flushing treatments. The joint pain made my hands basically useless. The Lyme disease was still there, worse than ever. The only thing that helped, accompanied by many natural liver, kidney and lymph medicines, plus homeopathy, was the teasel treatment and lots of spirulina.

—HANNE H.

Dear Mr. Storl,

I feel the need to thank you for your publication about Lyme disease. I was sick with Lyme disease about one year ago. I was diagnosed to be at stage 2 and 3 and chronic. I read your research and tried the treatment you suggest: five weeks of a sweat cure, taking teasel tincture and following some of the other good suggestions. Today I feel very good. Not only have I found out how to beat these bacteria but I regained my connection to nature in general. This experience has been a milestone in my development.

—HELGA P.

Dear Mr. Storl,

Not only is each line in the book interesting but each word is interesting and your incredible fundamental knowledge impresses me immensely. But there is something that I just must write: The infestation by the spirochetes has been proven to be more likely for persons with a highly acidic digestive metabolism. The healing is supported by a base blood tissue milieu. After fifty years of practice as a specialist in internal medicine, having completed very long university studies, I would give the base-acid ratio much more importance. For another edition of your most valuable book, I would suggest that patients actually measure their acid-base values daily. It is possible to do this oneself with indicator paper, testing urine. It is common knowledge that the pH value should be around 7.0 and that value can be used to estimate what the blood pH level must be.

I have been able to observe an improvement with stiff and sore muscles when the pH value has improved. I have also observed an improvement in mood, (depression gave way to a better mood) and the positive energy increased when the pH value was improved.

—DR. KARL OTTO J., MD

The following contributions were kindly provided by Heinz Machura, producer of teasel tincture in northern Germany. Mr. Machura himself writes: “I just got an e-mail from a pharmacist who is selling my tincture. He tells about a patient who is very enthused, who is free of symptoms, and has a considerably better blood count.”

Dear Mr. Machura,

A new person!

After a hard day of work, I fell exhausted into bed, exhausted but not unhappy.

The next morning my world was not as it had been prior to that. My arms and legs did not function anymore!

I sat there on the edge of the bed and had a look at myself from the outside. I saw that nothing was working like it should. During the next week my health deteriorated steadily. Recurrent pain, partial paralysis, and blurred vision set in. I was so exhausted that I wanted to sleep day and night. This went on for three months.

Then the exhaustion started to get better, but the impairment in my limbs and the recurrent pain did not get better. I was told I had burnout syndrome and should see a neurologist and a psychologist. No one really listened to my description of the symptoms I was having. I felt I was just stamped as a depressive patient and my case was put in the files. My question was: "But why does someone who is burned out have such pain in the joints and cramps in the limbs (even to the point of recurrent paralysis)?" The answer was that it was due to my nervous system and the psychologist would help me out.

After weeks of ineffective psychological treatment, she actually was able to help in that she recommended I see a bone specialist. The bone specialist found that I had Lyme disease in the third stage and gave me the address of a teasel tincture producer.

I ordered teasel tincture and jiaogulan (miracle grass, southern Ginseng) tea to detoxify my body. At that point I had been out of commission for five months, was no longer able to work, and had no prospects of getting better soon. When I started to take the tincture, on the first day three times five drops and every day thereafter one drop more, the pain got much worse again and I got worried. My husband told me that it is typical for any kind of homeopathic treatment that the original symptoms reappear for a couple of days, so I continued steady-fastly. After one week I felt much better though I was very anxious that the pain would come again at some time. But that did not happen; instead it got better day-by-day. At three times seventeen drops per day, the pain came back, so I reduced the amount again, which I noticed immediately. I think each person has to listen to his body to find out which dosage is best.

Now after four weeks of this treatment (tincture and tea), my legs and arms have started to feel like they belong to me again.

Now I can be there for my family again and manage my daily work at home. I still cannot work in my profession, but I have a lot of hope that it will be possible. I am so thankful that I was shown the way to this teasel producer! Thanks to the treatment, I am a new person again and I was able to find a way out of a five-month nightmare.

—SONJA D.

Hello Mr. Machura,

Thank you for the teasel and the tea. I wanted to write more but for today, this

much: I feel better from week to week.

—ROSWITHA F.

Dear Mr. Machura,

Thank you for your teasel tincture, which beat my Lyme disease. Since June 2007, I sought out five different doctors looking for help. Nothing helped. For two months I was completely dizzy two or three times a day, had to spend the whole day in bed. Had headaches and terrible pain in the joints, could barely walk. I think your product saved my life! I took eight to fourteen drops three times a day and drank jiaogulan tea. I think I can say the ordeal is over now. I feel almost completely normal again, like I was before this started.

—KLAUS S.

Dear Mr. Machura:

We hoped, but did not really believe, that your teasel tincture would help my wife as much as it did. We are very thankful to you.

Very many of the disorders have disappeared. My wife can climb stairways again, she is no longer drawn, she no longer has these terrible problems with her circulation, spells of weakness—in short, she is completely changed. She can take on her duties and enjoys her life again.

—HANS H.

Hello Mr. Machura,

I have had very good success with an Arabian horse, a patient of mine. We are giving the horse two times twenty drops a day and it has nearly completely regained its health.

—S. HERRSCHER, natural healer for animals

Nearly all correspondents told of the improvement or disappearance of their Lyme symptoms after having taken teasel root. Once in a while, however, there were negative responses. One patient wrote that he had made a tincture of the roots and had no results whatsoever. Upon probing, I found out, that he had made the tincture from the roots of the teasel that had already gone to seed. No wonder. At this stage the roots had turned woody and died. There is no life in them at that state and certainly no healing power. Another person, known to me had no success with the tincture. But that did not surprise me. She lived in an extremely unhappy family situation and basically fled into her illness. In reality, it seemed that she did not want to be healed.

Herxheimer Reaction

Some patients wrote of worsening symptoms after taking the tincture. A woman, Saskia K. living in Lower Saxony, wrote:

It was Christmas, when I read your article concerning teasel as cure for Lyme. Since I suffer from the disease and the plant grows everywhere around here as a weed, I decided to make the tincture and take it. I had a severe reaction to it. I was afraid it would kill me. My heart started racing, the muscles tightened, I had chills and attacks of anxiety. Could it be that the teasel is poisonous? Or should one rather try a homoeopathic option?

Another letter was written by a young woman, whose seventy-six-year-old mother suffered from Lyme arthritis that confined her to a wheelchair. She reported that her mother's symptoms took a turn for the worse after taking the tincture. This state lasted for nearly two weeks. But she had enough faith not to quit. Afterwards, not only did she feel well, she is without pain and can freely move her joints. The joy of life had come back.

Reactions such as these two woman experienced are rare. But they can occur, sometimes in a mild form, sometimes in a more severe form. These reactions are not the response of the body to some toxic agent in the teasel, for the plant is definitively not poisonous. Instead, the reaction is akin to the "rebound effect" with homeopathic remedies, where at first the initial symptoms reappear for a short time. Dr. Orth refers to it as a "retro-activation of the endotoxins" associated with Lyme. What we are dealing with is actually a typical Jarisch-Herxheimer reaction or Herxheimer reaction, or simply Herx-reaction.

Advice from an Old Herbal Woman

Once, while lecturing about healing herbs at a well-known wildflower nursery in Bavaria not far from the majestic Alps of the Allgäu, I noticed a bunch of teasels growing as weeds in a nearby meadow. That brought to mind my bout with Lyme disease and I started to continue the lecture by telling of the healing power of this plant. Among the listeners was a rather stout Bavarian woman. After introducing herself as midwife and "herbal hag," she let me know that what I was describing was no news to her. The use of teasel was well known in her tradition. She said that she has much experience with a tea made from the dried roots for treating arthritis and rheumatism, and that she even has had success with inflammation of the vertebrae with it.

MORE ON THE HERXHEIMER REACTION

The Viennese physiologist Adolf Jarisch and the Frankfurter dermatologist Karl H. Herxheimer were the first to describe this reaction in connection to a successful treatment of early stages of syphilis. It is a reaction to the toxins, which are

released when syphilis spirochetes (*Treponema pallidum*) collapse after the first administration of an antibiotic (penicillin). The following symptoms can occur as part of a Herxheimer reaction: chills and fever, a general feeling of unwellness, worsening of previous symptoms or the appearance of symptoms that had not yet surfaced (Pschyrembel 1994:746). Similar reactions can appear after chemotherapy for abdominal typhus (caused by salmonella infection) and by the treatment for other spirochete infections, such as recurrent fever, leptospirosis, or pinta.

The Herxheimer reaction can last for a few days up until several weeks. In the case of Lyme disease, it appears after a successful antibiotic treatment. Recently experts have come to believe that it has not only to do with the spirochetes that are dying off but mainly the endotoxins, the noxious surface proteins, or the debris of lipoproteins that the decomposing bacteria leave behind in the blood and lymphatic vessels.

How extremely the patient “herxes” is very individual, according to the condition of the liver and gallbladder, the overall health, the degree of heavy metal contamination in the system, the acidity in the tissue, and so on. With most patients there is no Herxheimer reaction at all.

In case of an acute Herxheimer reaction, it is beneficial to drink lots of fruit juice, to move the pH of the blood into an alkaline direction and restore electrolytes. Also helpful is cranio-sacral treatment (Agustoni 2008) and detoxifying the liver and kidneys with various cleansing herbal teas.



She then proceeded to describe her rustic four-week cure, which she also uses in case of Lyme borreliosis. For the first week, her patients fast. During this time they quench their thirst with the bitter, unsweetened tea of the teasel root, taking small sips at a time over the whole day. After the first week, the patients start taking light food again but continue drinking the tea along with food for the rest of the month. In case of Lyme disease, she recommends a tea cure on a weekend once every month for the following next year, but without fasting. “Those little worms are tuned in to the moon rhythms,” she claimed. “They multiply every twenty-eight days! That is why one should drink the tea each month, preferably during the full moon for the next year or solar cycle.” How did she know that, I wondered? But then, Lyme patients indeed complain about monthly bouts.

This fairly drastic treatment is probably one of the many ancient cures practiced traditionally by herbal healers, housewives, and grandmothers. It is a folk-based, underground, oral tradition, which has eluded scholars, doctors, clerics, or pharmacists.

It is real indigenous herbal medicine that never found its way into their books.

Back home in my study I did some research on traditional uses of teasel. I saw that in European herbal practices a decoction of teasel root has been used for ages as cleansing and detoxifying for arthritis, rheumatism, dropsy, dermatitis, boils, gallbladder weakness, hepatitis, and acne. I found its use since Dioscorides as strongly diuretic, bile-stimulator, and sudorific, as well as a stimulator of liver metabolism.

A mother who was touring the garden with the group that day said she had read in my book that teasel helps with warts and the like. Her children had warts on their hands, so she dug up the roots, cooked them, and wrapped them around their hands as a poultice. She said, "Believe it or not, after three days, the warts were gone."



Herb gatherers, sixteenth century

CHAPTER TEN

Other Natural Cures

*If the illness through it all persists,
Prescribing hope is not remiss.
Like a single spark that lights a blaze,
A new doctor earns high praise.
(translated by Matthew Held)*

—JOHANN WOLFGANG VON GOETHE (1948:Vol 4,161)

*Take the root of any tree,
Mix it with any kind of juice,
Someone takes this as medicine
and you can be sure that something will happen!*

—JOHANNES HERTEL (1915)

In this chapter are some other therapies for curing Lyme disease. All make sense to me though I have not tried them. Including them here is not meant necessarily as a suggestion but to give the reader some more ideas about other therapies that exist.

The “Borrelia Path” of Rudolf Müller

In the summer of 2004, Rudolf Müller, a carpenter in Swabia, southern Germany, was bitten by a tick. Soon after, when a red ring developed around the bite, he decided to go to his doctor where he was given a shot against a possible co-infection with early summer meningoencephalitis, just in case. He did not react well to this vaccination. A booster shot two weeks later brought on severe headaches and partial paralysis of the right arm. The pills consisting of the antibiotic doxycycline worsened the situation. He could hardly move and was in great pain. The doctor shook his head and said that a reaction of this sort was extremely seldom—one in a million, as a matter of fact. Müller felt desperate. Then by coincidence he heard of teasel tincture and, clutching at straws, he found and dug out the roots of this plant. Determined to get well as quickly as possible, he did not want to wait three full weeks for the tincture to mature. Instead he put the cleaned roots into a mixer, ground them to a pulp, poured vodka over them, and drank the result right away. He continued drinking his concoction every day for the next three weeks and was amazed how well the cure worked. At the same time he treated his aching joints with hot peat packs and etheric oils steeped in olive oil. In this rather unorthodox way he was able to cure himself of a serious case of Lyme disease. When he

visited me to tell me his story, he was an obvious picture of health. As a matter of fact, he felt that his bout with the disease was a blessing in disguise. On the letterhead of his stationery appears “I thank God and the tick for opening my heart and my eyes.” He even refers to himself as “the friend of the borrelia.” His fortunate healing made him feel called upon to share it with others who suffer from the disease. Despite occasional problems with the law regarding unauthorized practice of medicine, he has become a successful folk healer of Lyme disease. Here are the suggestions he passes on to his clients (Müller 2005).

- Take teasel tincture, three tablespoons daily for three months.
- For pain in the nerves, dissolve Himalaya salt in cold water in a bottle. Shake the solution and rub the residue into the skin where the nerves are hurting. Afterwards rub the body from head to foot with olive oil containing a maceration of some 130 (!) healing herbs. (Note: He did not reveal all the herbs used to me. They are herbs containing etheric oils and are similar to the ones that Dr. Orth puts into his essential oil mixture.)
- Place hot peat moss packs (122°F or 50°C) on the ailing parts of the body every two days. Afterwards rub these areas down again with olive oil containing 130 healing herbs.
- For stomach and intestinal disorders, he recommends Haarlemer oil capsules—in the first week three per day, in the second week two daily, and in the third week only one daily. Haarlemer oil, or essence (*Oleum terebinthiae sulfuratum*), named after the city Haarlem in Holland, is sulfured linseed oil that has been in a solution of one to three parts turpentine. For hundreds of years stomach, intestinal, and kidney ailments have been treated with Haarlemer oil. (Attention! It can only be taken in small portions, a few drops or capsules. Larger amounts can cause fatal poisoning!)

During the entire cure observe a light diet, eating less and drinking a lot of noncarbonated water.

The only side effect that the borrelia friend noticed was that his liver spots vanished, a result attributed to the use of teasel in old herbal writings.

The Klinghardt Method

The German-American medical doctor Dietrich Klinghardt has a comprehensive therapy in which nothing is left untried (www.ink.ag). It is based upon the following four pillars

- The presupposition that psychological stress “opens the door” for the disease, and must be resolved with psychological treatment, for instance with psycho-kinesiology
- Regulating and harmonizing the immune system
- Detoxification and the flushing out of toxins and acids
- Combating viruses, bacteria, and other germs that cause disease

According to Dr. Klinghardt, not only neurotoxins should be flushed out or neutralized, but also heavy metals, environmental poisons, and other poisons, such as amalgam from “silver” tooth fillings. Substances such as antioxidants,⁵³ glutathione, phospholipids, DMPS,⁵⁴ calcium EDTA (binds metal ions), together with vitamin C, are given intravenously. They transport the poisons from extracellular space to the excreta organs. Toxin-binding substances are taken simultaneously, such as:

- Raw foods and roughage such as in raw vegetables
- Coriander tincture
- Chlorella algae
- Apple pectin, which protects the inside wall of the intestines from bacterial poisons
- Velvet bean powder (the powder of the African velvet bean *Mucuna puriens*), which is antitoxic and vermifugal
- Soy-phospholipids (the essential phospholipids, produced from the lecithin of soybeans), said to protect the liver and increase its performance

Further treatments are: draining the lymph and intestinal irrigation; high-frequency microelectricity, claimed to arrest the buildup and multiplication of microbial cell walls; auto-urine therapy, a nosode therapy by which one’s own urine is used to stimulate a defense reaction; chestnut extract, which makes the binding tissue more porous; induction of lacking minerals, including lithium to stabilize the central nervous system; salt and vitamin C intake to put the parasites into osmotic shock and to boost the body’s endogenous enzyme elastase; reduction of stress due to electro-smog, for example, in the bedroom or car; injections of blood-thinning heparin to dissolve pathological blood clots in the veins; changing to a diet of high protein and fatty substances, but only a small portion of sugar and carbohydrates.

Klinghardt prefers plants that work antibiotically and orthomolecular substances (minerals) to fight bacteria and parasites. These include the following herbal remedies.

- **Cat’s claw** (*Uncaria tomentosa*) is anti-inflammatory, anti-cancerous, and antiviral (see the sidebar).
- **Noni** (*Norinda citrifolia*), a Rubiaceae from northern Australia, is cultivated nowadays in southern Asia and Central America. It contains essential oil with caprylic and caproic acid, which are also contained in saxifrage Burnet (*Pimpinella saxifraga*), indigenous in the northern hemisphere. It is traditionally used for cancer, obesity, high blood pressure, heart disease, impotence, old age complaints, and more.
- **Garlic** strengthens the immune system and is antifungal. Both a weakening of the immune system and an increase of fungi-caused ailments are common attendant symptoms of Lyme disease.
- **Teasel peppermint tincture** that has been made tastier with peppermint is given for six weeks, alternating with cat’s claw.
- **Mellite** injections are antimicrobial and are supposed to heal an ailing nervous

system.

- **Niacin** (vitamin B3) has an antibiotic effect against borrelia.

<https://www.healthboards.com/boards/lyme-disease/592203-i-believe-i-can-now-recommend-niacin-anti-borrelia-treatment.html>

CAT'S CLAW (*Uncaria tomentosa*)

This vine, which is known in its South American place of origin as *una de gato* or *samento*, is a tropical cleaver (genera *Galium*) from the madder family (*Rubiaceae*). The plant has prickly blossoms and sickle-shaped, cat-claw-like thorns that help it climb over other vegetation. It is related to cinchona, whose active ingredient, quinine, kills malaria plasmodia and similar parasites. Similar to the cleavers of the northern latitudes, lady's bedstraw (*Galium verum*), or goosegrass (*Galium aparine*), cat's claw has a cleansing, lymph-system-supporting effect. Beyond that, it is also immune-stimulating, anti-inflammatory, antioxidant, and antitoxic.

The Indians in the jungles of Peru, such as the Shipibo, used it for pain in joints and bones, rheumatism, severe wounds, inflammations, cancer, and other diseases. The plant did not become known to Western herbal medicine until the 1930s when a Bavarian emigrant to Peru discovered it. The Austrian Klaus Keplinger made it generally known in the 1980s and in the 1990s it became a fad drug, using the roots and inner bark of the plant. Since numerous experiments *in-vivo* and *in-vitro* (*in-vivo* = in living experimental organisms; *in-vitro* = in test tubes) have shown the immune-stimulating (phagocytosis and lymphocyte stimulating) effect of cat's claw, it has subsequently been used for the treatment of cancer, AIDS, arthritis, and Lyme disease. Mainly pentacyclic and tetracyclic oxindole alkaloids are claimed to be responsible for this effect.



Regehr-Clark Therapy

Similar to Dr. Klinghardt's therapy, the therapeutic program developed by Dr. Hulda Regehr-Clark begins with an all-around cleansing. Her theory is that, in the last analysis, all diseases develop from toxins, environmental poisons, and parasites such as worms, leeches, fungi, and bacteria. She even claims that an intestinal leech causes cancer. Dr. Regehr-Clark believes the patient will become healthy again if the parasites or poisons are successfully eliminated. Recommended courses of action are intestinal cleansing, dental cleansing, strict nutritional cleanliness, and a thorough cleansing of the living environment. The main emphasis, however, is on electrode therapy using 380-volt (380 kHz) electrical impulses, which are directed onto the diseased tissue one to

three times daily for five minutes at a time⁵⁵; presumably, they kill the parasites.

In addition, further steps are taken, such as rubbing in freshly ozonized oil with L-cysteine, an endogenous amino acid containing sulfur, which functions as an antioxidant and detoxifier, also in the case of heavy metals. A tincture made of black walnut (*Juglans nigra*), wormwood (*Artemisia absinthium*), and antimicrobial cloves is claimed to kill off the parasites.

Some other electrode therapies already exist, such as the Rife machine, which works like a microwave only with frequencies that are not harmful, and Beck electrification, which is claimed to kill spirochetes, including those hidden in cells, by means of low-frequency voltage.

Salt and Vitamin C—Salt-C Therapy

This therapy consists of taking very high doses of natural salt (sea and mineral salt) and vitamin C powder (ascorbic acid). At first one takes one to three grams of each substance per day. The aim is to increase the dosage up to a maximum of one gram per 6 kilograms body weight. A person weighing 75 kilograms (165 pounds) would take about twelve grams (approximately one-half ounce) of salt and vitamin C powder. It goes without saying that the dosage can be adjusted if there is a strong reaction or discomfort with the amount. Every morning the appropriate amounts of salt and vitamin C are dissolved in water and sipped throughout the day. Fresh lemon juice is added to the solution.⁵⁶

During this therapy it is very important to drink a lot of fluids in order to flush out the toxins and, as the case may be, dead bacteria. To alleviate the possible Herxheimer reaction and to support the organism, one should:

- Take enough mineral substances, especially magnesium-orotate
- Take a vitamin B complex
- Take active coal or healing earth to bind toxins, dead bacteria, and excessive acids
- Eat healthy food, including fresh vegetables, fruits, roughage, and unsaturated fats
- Take salt-water baths or brine baths with magnesium sulfate
- Take algae (chlorella or spirula), which contain micronutrients and bind heavy metals and toxins

The salt-C therapy can be successfully combined with electrode therapy. The effect is enhanced through the heightened electrolyte content in the body fluids.

According to the theory, it is through the increased salt and vitamin C content that the borrelia, whether in spiral, capsule (L-form), or capsular cystic form, get an osmotic shock. The salt extracts the water from their cells; they then “dry up” and die off. The same happens to the microbes, which cause certain co-infections, but—so continues the theory—not to the beneficial bacterial intestinal flora or the endogenous immune system.

Phytotherapeutic Lyme Disease Therapy, According to Stephen H. Buhner

Stephen Harrod Buhner is a well-known phytotherapist and ecologist from Vermont, a region where Lyme disease first reached epidemic status. He developed a clinically proven therapy based on healing plants. His approach is based on the following four points.

Eliminate the spirochetes. In conventional medicine, killing the bacteria is the primary concern, but it cannot be denied that at least thirty-five percent of infected patients do not react to antibiotics or have a relapse very soon, especially the ones with chronic Lyme. For that reason Buhner chooses healing plants that are capable of lowering the number of spirochetes or flushing them out of the organism.

Modulate the immune system and build up the defense system. Buhner accounts for three clinically proven healing plants, which reduce the spirochetes and simultaneously strengthen the immune system; they also make the symptoms of the sickness milder.

- **Green chiretta** (*Andrographis paniculata*, Sanskrit *bhunimba*, Hindi *kriyat*) is from the thorny plant family *acanthus*. It grows in India and is used in ayurvedic medicine as a blood-cleansing, balancing, anti-inflammatory, sudorific, immune-stimulating, bile-stimulating, vermifugal, cooling bitter tonic. According to recent scientific studies it has an anti-spirochete effect. Buhner has documented these studies (Buhner 2005:81). Traditionally the plant has been used for recurrent fever, leptospirosis, syphilis, and other spirochete-caused diseases. It is also used for malaria and chronic fatigue. The dosage is 400–1200 mg (14–40 ounces) of the powder three times a day. No side effects are known.
- **Japanese knotweed** is originally from eastern Asia but is now an invasive plant running riot in other countries. It looks somewhat like the bamboo plant. (See the related sidebar for more information.)
- **Cat's claw.** Buhner recommends one to four capsules of 500 mg (17 ounces) three times a day, over a period of eight to twelve months. He advises starting with a smaller amount and building up to the above-mentioned amount.

Supporting these three main plants are two others that can be considered.

- **Astragalus** (*Astragalus membranaceus*, Chinese *huang qi*). This papilionaceae from northern China and Mongolia is considered by traditional Chinese medicine to be “light-warm” (activates ch'i and conducts cold out), “sweet” (tones), and affects the functional pattern of the lungs and spleen (Suwanda and Tien 2005:52). As far as Lyme disease is concerned, astragalus strengthens the immune system (increasing the interferon-gamma and interleukin-2 levels). It is also antiviral, antibacterial, anti-inflammatory, liver detoxifying, and heart strengthening (Buhner 2005:118–126). Astragalus is taken in the early stages of Lyme disease but not in the later phases. The dosage is twice daily 1000 mg (35 ounces), which can be multiplied by

four and taken four times a day for a patient with Lyme disease.

- **Smilax, or sarsaparilla** (*Smilax glabra*, *S. aristolochiaefolia*, *S. spp.*). Different kinds of smilax were used in Central and South America for syphilis. The Chinese in eastern Asia also used indigenous kinds for spirochete disease. Smilax binds endotoxins in the blood; it is antibacterial and, with spirochetes, also has anti-inflammatory and antioxidant properties. It strengthens and protects the liver and eases Herxheimer reactions, strengthens the immune reaction to the borrelia, protects the nerves, and reduces fatigue (Buhner 2005:26–31). Buhner prescribes 500 mg (17 ounces) of the powdered root taken three times a day.



Smilax

Support and rebuild structural proteins (collagen). Spirochetes take nourishment from the collagens, protein from the binding tissue, tendons, fascia (the sinew-like sheaths of the muscles), ligaments, cartilage, and nerve sheaths, as well as from cerebrospinal fluid and eye fluid. The borrelia actually benefit from the autoimmune reaction of the body by making the jelly-like cartilage soft so that they can use it for nourishment. The spirochetes have probably always done this for hundreds of thousands of years, but in a body that is healthy, the loss is easily replaced and there are no symptoms despite the presence of these microorganisms—that is, a healthy person remains symptom free despite their presence. Presumably with the new Lyme disease, a bacterium that has become virulent and is a genetic mutation is coming into contact with people whose immune systems and regeneration ability have been extremely weakened. For that reason an important part of the therapy would be plants and foods that rebuild cartilage and “gelatine.” Here are the ones that Buhner recommends (Buhner 2005:139).

- **Vitamin C** functions as an essential coenzyme for collagen synthesis. Not only

vitamin C tablets (1000–3000 mg daily, 36–100 ounces), but also citrus fruits and other fruits with high vitamin C content are beneficial.

- **Zinc picolinate with copper.** The trace element zinc helps form enzymes that enable proteins to become building blocks for new cells. Both zinc and copper are essential for new collagen formation.
- **Silicium** calcium colloids help to stabilize the structure of vessels, tissue, and bones.
- **Glucosamin sulphate** is a cartilage protection and rebuilding substance (chondroprotective) made out of the shells (chitin) of lobsters, shrimp, and crabs; it is a remedy for arthritis.
- **Pregnenolone** is a precursor (“mother substance”) to all steroid hormones of the human body. According to clinical tests this food supplement soothes arthritic inflammation, repairs the damage that occurs due to stress hormones, and repairs damaged myelin around the nerve fibers.
- **DHEA** (dehydroepiandrosterone) is an anti-aging-hormone, produced from the adrenal gland. This steroid hormone is a forerunner of the sex hormones.
- **ALA** (alpha lipoic acid) is said to hinder oxidative damage.
- **Selenium** is an essential micronutrient necessary to promote healthy blood cells and detoxify the body against poisonous heavy metals.
- **Vitamin B complex**
- **Vitamin E**

Symptomatic Treatment of Particular Afflictions

As Lyme disease can take on the appearance of other diseases and can afflict every organ, these ailments are treated singly according to the complaint. Here are some examples, according to Buhner, of plant therapies for specific afflictions.

- During the **first acute phase** of the disease: Siberian ginseng (*Eleutherococcus*, Chinese *wie-jia*). This thorny plant from the family *Araliaceae* is anti-depressive, lessens stress, and increases the number of defense cells.
- For **facial paralysis** (Bell’s phenomenon) and **ocular lyme disease**: *Stephania* root (*Stephania tetrandra*; *S. cepharantha*, Chinese *hang-fangji*). This Asiatic menispermaceae reduces nerve and arthritic inflammations, reduces edema, and is antibiotic.
- For **flushing out neurotoxins**: Japanese knotweed (*Fallopia japonica*). Resveratrol,⁵⁷ which is found in the roots, reduces neurotoxins and protects from oxygen radicals in the nervous system. Selenium, zinc, copper, and melatonin are also recommended as supplements.
- **Arthritis in the joints**: *Fang ji* (*Stephaniae tetrandrae radix*), teasel root (*Dipsacus*), vitamin A. To alleviate the pain of **general arthritic symptoms**: creeping devil’s claw⁵⁸ (*Harpagophytum procumbens*), stinging nettle (fresh juice or tea), capsaicin (an extract of chilli pepper), and turmeric (*Curcuma longa*), which lowers blood

cholesterol, is an antioxidant, and is antimicrobial, anti-inflammatory, and protects cells. He also recommends arthritis tea containing stinging nettle, horsetail, dandelion, peppermint, celery seeds, turmeric, devil's claw, and meadow sweet.

- For **memory lapse** and **cognitive dysfunction**: Extracts from the roots of the Japanese knotweed, the roots of *Stephaniae tetrandrae* and of club moss (*Huperzia seratum* or *Lycopodium clavatum*), as well as periwinkle (*Vinca minor*, *V. major*) are recommended. Periwinkle is a brain-specific tonic that increases the oxygen in the brain and improves its glucose metabolism. The result is better memory, better concentration, and better articulation. Periwinkle reduces irritability, dizziness, headaches and tinnitus; it also improves blood flow to the retina.
- **Angina pectoris** and other Lyme disease-related **heart problems**: hawthorne (*Crataegus spp.*) and southwest Asian khella, or toothpickweed (*Ammi visnaga*), improve coronary circulation.
- **Eye problems** (floating black spots, blurry vision): stephania root, periwinkle, vitamin C, zinc.
- **Itching and twitching muscles**: magnesium and vitamin B complexes.
- **Swollen lymph channels, plugged lymph channels**: New Jersey tea, or red root (*Ceanothus americanus*) is effective as a tincture for pain and swollenness in the spleen and liver area. It is also cleansing for the lymph system.
- **Weak muscles and general conditions of weakness**: tinctures made of American ginseng or wild sarsaparilla (*Aralia nudicaulis*).
- **Restoring the intestinal flora** after antibiotic treatment: probiotic acidophilus capsules.
- **Chronic fatigue**: Siberian ginseng (*Eleutherococcus*), green chirayta (*Andrographis paniculata*), or Astragalus root.
- **Headache**: Japanese knotweed, stephania root, green chirayta, periwinkle herbal preparations.

JAPANESE KNOTWEED

Japanese knotweed is *Fallopia japonica*; synonyms are *Polygonum cuspidatum* and *Renoutria japonica*. It is also called Japanese winged knotweed, pointed knotweed, spear knotweed, Japanese rhubarb, and Japanese buckwheat. The Sachalin knotweed (*Renoutria sachalinensis*) is a close relative that has similar characteristics; its origins are northern China and northern Japan.

This knotweed native to East Asia was introduced in the early nineteenth century to Europe and America by plant aficionados as an exotic, decorative garden plant. In addition, it was hoped that the plant would serve as fodder for domestic animals, as well as for deer. However, it turned out that grazing animals and deer avoid it. Nonetheless, it provides shelter and food for small rodents and birds. Honeybees also enjoy the knotweed's blossom nectar, making it into quality honey

similar in taste to buckwheat honey, yet milder. The wild plant can reach an impressive nine feet tall, growing in early spring at a rate of four to twelve inches a day; it likes to spread its rhizomes and shoots out in all directions

As this plant has neither natural enemies that feed upon it, nor competing vegetation, it has spread abundantly in dense stands in such locations as river valleys, forests, and roadsides. Moreover, this remarkable plant has managed to spread without producing seeds because the plants that were introduced were all female; no male plants were on hand to pollinate them. They are, so to speak, like an army of plant amazons. They spread when rodents such as muskrats carry the roots, when rhizomes are swept along by flooding and then find new places to grow along riverbeds, or when disgruntled gardeners rip them out and discard them in landfills or roadside ditches. Nature purists, who refuse to accept any change in nature, regard such an immigrant plant as an aggressive neophyte that crowds out native plants and is immune to any plans to eradicate it. Despite the use of industrial-strength herbicides, the plant continues to steadily propagate. Although potent herbicides are administered, the bamboo-like plants readily spread. Even after being cut and treated with poison, the plant is still able to produce tiny sprouts.

In former East Germany, Japanese knotweed was planted to cover and green thousands of acres of strip-mined land, as well as aiding in reinforcing dams and dunes. Scientists at the University of Oldenburg have discovered that giant knotweed growing in heavy-metal polluted earth can actually detoxify the soil of its poisonous substances. After the rapidly growing plants have absorbed lead, cadmium, zinc, and other heavy metals from the soil, they are then harvested and disposed of.

Organic gardeners have discovered the use of extracts from knotweed roots as an effective preventive measure against mildew, leaf fungus, and browning leaves. These extracts are also used to prevent dry rot and grey mold in bell pepper plants (Kowarik 2003:215).

Children in China and Japan enjoy eating the freshly peeled shoots in the spring as much as our youngsters enjoy the taste of sour dock. The taste is similar to rhubarb and one can easily bake a delicious rhubarb pie with them. The boiled spring shoots are delicious; alternatively, the blanched shoots can be made into a kind of sauerkraut by salting them and packing them into a crock.

The outer part of the root is used in East Asia to make a yellow dye for textiles. I was aware of all of these facts, but it was from Stephen H. Buhner's book *Healing Lyme* (2005) that I first learned how knotweed can also work as an important phytotherapy.

Traditional Chinese herbal medicine refers to knotweed as *chuan qui*, *ban zhang*, *suan zhang*, *huang yao zi*, or *chuan jun long*. This slightly bitter tasting root has medicinal applications in liver and spleen function. Its medicinal applications in China are numerous:

- Antiviral
- Antileptospiros (It is effective against spirochetes of the genus *Leptospira*)
- Fungal ailments (fungicide)
- Decongest bronchial tubes, loosen mucus, calm a cough (also applicable for asthma)
- Lower blood pressure and lipids, reduce bad cholesterol
- Hemostatic, astringent
- Alleviate pain, decrease inflammation (with arthritis, rheumatoid arthritis, and bacterial inflammations)
- Antibiotic for *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Moraxella catarrhalis*, *Streptococcus*, and *E. coli*
- Blood-cleansing, detoxifying, and anti-rheumatic

In Buhner's view, Japanese knotweed is one of the most important means of healing Lyme disease. The root of the plant helps repair damage caused by spirochetes. Active ingredients such as resveratrol and transresveratrol expand blood vessels and overcome the blood-brain barrier. The active ingredient improves blood flow to the eyes, heart, skin, and joints. It protects nerve tissue from oxidation damage and microbial endotoxins. In addition, it alleviates Herxheimer reactions, protects endothelial cells that envelop the blood vessels, suppresses co-infections, lowers bad cholesterol levels, reduces autoimmune reactions, and has many more applications (Buhner 2005:108–118).

Resveratrol is also a phytoestrogen, a botanical hormone that resembles the female sex hormone. It has been speculated that it may be used to suppress menstrual cramps, post-menopausal symptoms, and even breast cancer.⁵⁹

Collecting knotweed. The roots are dug up in late fall or in the spring. As they are very tough, they must be dried and then grated or milled to pulverize them. The whole drug, meaning the root powder, has a synergistic effect and is better suited as an isolated active ingredient.

Dosage. Buhner suggests a dosage of 9–30 grams a day, depending on body weight and physical constitution of the patient. The powder is simmered in water for twenty minutes. The water is filtered, divided into four parts, and taken throughout the day.

Side effects are practically nonexistent; a rare exception is complaints of stomach

or intestinal upset. To be safe, pregnant women should avoid taking it, and it should not be taken in combination with blood thinners. For a person weighing 75 kilograms, a toxic dose is 75 grams per day.



For traditional herbal healers it is interesting to note that knotweed, this new aggressive and invasive plant, which has taken over entire areas in no time, is effective with a disease that is spreading just as quickly. Paracelsus once said that the same “aster” (star influences or soul influences) that cause diseases in people also cause healing plants for the disease to prosper in the same areas. Here is another parallel: Japanese knotweed detoxifies soil that has been contaminated by cadmium and other heavy metals; it also detoxifies the human organism as a healing plant.

Buhner suggests the following herbal therapies for co-infections.⁶⁰

- Co-infections with **babesiosis**, or **babesia**, which is also a tick-borne disease caused by *Babesia* protozoans, with symptoms similar to malaria, can be treated with annual mugwort (*Artemisia annua*), which is also used for recurrent fever, combined with New Jersey tea (*Ceanothus*) as a lymph-cleansing and stimulating medium. In case of fever and shivers a tea made of boneset (*Eupatorium perfoliatum*) can be considered; it is sudorific and stimulates the immune system.
- For co-infection with **ehrlichiosis** Buhner prescribes Astragalus as well as a tincture made of meadow saffron (*Colchium autumnale*), which is traditionally used to treat gout. (Note: This plant is extremely toxic! Laypeople should not try to use it, but seek competent herbalists.)
- For co-infections with **bartonella** the powdered root of Japanese knotweed, boneset tea, and tincture from New Jersey tea are recommended.



Boneset

Other Therapeutics for Lyme disease

Coupled with the increasing fear of Lyme disease are an ever-multiplying number of healing remedies and therapeutic medicines. Here are some of the most prevalent suggested medicines.

- **Lauricidin** or **monolaurin**. These monoglycerides of lauric acid are antibacterial and antiviral. They assault the lipid hulls or surface proteins of the bacteria. Mother's milk is also said to contain monolaurin, which gives the infant additional immunological protection.⁶¹ Considerable amounts of monolaurin are also present in coconut milk. Coconut was also an important part of the "white foods" eaten during syphilis treatment among the Caribbean Indians (see [Chapter Nine](#)).
- **Colloidal silver** consists of electrically charged silver particles that are kept afloat in distilled water. Used internally, it works like a broadband antibiotic by blocking an enzyme that microorganisms, both fungi and bacteria, need for their metabolism. A silver coin used to be put into the milk pitcher for this same reason, so that the milk kept longer and did not become sour. Microbes apparently cannot develop a resistance to it and side effects are unknown.
- **Artemisinin** (Sesquiterpenlacton-peroxide) is an active ingredient of annual mugwort (*Artemisia annua*), a plant that grows in the moderate zones in Asia. It grows well in gardens. The plant powder has been used successfully for malaria. The effect is described as antiparasitic and antimicrobial. Artemisinin has few side effects.

- **Goldenseal** (*Hydrastis Canadensis*). This American forest plant is a heal-all. (But it should not be used when pregnant, as it can induce labor.)
- **Olive leaf extract** from leaves of the olive tree is germicidal and is said to stimulate the endogenous immune system. Dosage: 1–2 teaspoons (5–10 ml) three times a day, undiluted.⁶²
- **Mistletoe** leaf extracts have been proven to arrest tumor growth and have a stimulating effect on the immune system. Mistletoe stimulates the activity of the lymphocytes and helps release lymphokine and interferons. Even Hippocrates prescribed mistletoe for lymphatic disturbances and swelling of the spleen. Mistletoe compounds are also used for chronic joint inflammation (Kaufhold 2002:538). Caution! The berries are highly toxic.
- **Rizol therapy according to Dr. Gerhard Steindl**. Rizol oils are ozonated oils (long-chain well-oxygenated oils). Ozonide, as an oxygen carrier, is mixed with olive oil and castor oil. In addition, 10 percent vermouth (wormwood) oil, 1.8 percent walnut oil, 3 percent mugwort oil, 5 percent black cumin oil, and 0.9 percent marjoram oil are added. Borrelia and other anaerobic germs do not like oxygen. It is poison for them.
- **Unsaturated fatty acids** in **borage seed oil** (*Borago officinalis*), **hemp seed oil** (*Cannabis sativa*), **evening primrose oil** (*Oenothera biennis*), and **salmon oil** (also rich in omega-3-fatty acids) ease inflammations and strengthen the immune system.
- **Rockrose** (*Cistus incanus*), a small, resinous shrub found in the macchia thickets of the Mediterranean, is considered to be a miracle drug among Lyme disease self-help groups. The great amounts of polyphenol neutralize free radicals and strengthen the endogenous immune system. Taken as a tea or decoction, it is claimed to protect from tick or mosquito bites.

CHAPTER ELEVEN

Hahnemann and the Syphilitic Miasma

Diseases that are not given names tend to disappear faster.

—CLEMENS KUBY (2005:44)

A homeopathic medicine regulates the same process in the human being as it does in external nature. In humans, as in nature, the regulating factor remains invisible. The same is true of medicine.

—JÖRG REINHARD, MD (2008:113)

Miasmas are nothing other than states of consciousness.... They evoke the appropriate disease fitting the individual patient. It is my perception that they also contain within them the solution, because they never have only negative sides.

—DR. ROSINA SONNENSCHMIDT, homeopathic doctor (2007:20)

Nearly everyone has heard something about homeopathy. It enjoys the reputation of being a gentle, sensitive way of healing. The founder, Samuel Hahnemann, himself a medical doctor, was born in Meissen, Saxony, in 1755 and died in Paris in 1843. Hahnemann rejected the medical practices of the time—bloodletting, blistering plasters of Spanish fly (*cantharides*), cauterization, aggressive emetics and laxatives, as well as highly toxic pills, strong brews, salves prepared from mercury compounds, arsenic, sulfuric acid, and heavy metals—which often weakened patients and made them even sicker (Hahnemann 1999:159).



Samuel Hahnemann, founder of homeopathy

The following basics of homeopathy are probably known to most people. The healing media consist of highly diluted substances, which when taken by healthy people bring forth symptoms similar to the disease itself. The principle is to treat like with like or similar with similar (*similia similibus curantur*) and not, as in allopathic⁶³ medicine, to fight the disease with poisonous antidotes. Homeopathic globules and drops stimulate the body to react against what is ailing it—thus mobilizing the life energy and strengthening the endogenous defense system.

Hahnemann first discovered the similarity principle when he tested upon himself a small dose of cinchona bark, which is commonly used against intermittent fever or malaria. He noticed that he temporarily developed symptoms similar to the malaria: cold feet, sweating, pounding headaches, exhaustion, and nausea. After much experimenting with rather toxic substances such as *nux vomica*, *arnica*, strychnine, and *veratrum*, Hahnemann came to the realization that the dosage of the medical substances should be as low as possible. Not the material amount matters but the “information” that is passed over into the body. The material that is used as medicine, which is often toxic in its original raw form, is progressively diluted with ten parts of water or alcohol and vigorously shaken after each dilution until the right degree of dilution has been reached. Insoluble substances are rubbed or succussed into lactose and thinned down to the same degree. When the twentieth dilution has been reached, there is nothing measurable left of the original substance in the water. Only the information is passed on, conveyed to the patient via the carrier, either water or lactose. The higher the dilution, the stronger the effect is claimed to be.

Hard-core skeptics consider this “potentized” or sensitized water or lactose to be hocus-pocus. However, the success of homeopathic medicine and its record of curing the sick are thoroughly documented, and various scientific investigations suggest it is not hocus-pocus at all. For example, recent tests done by Jacques Benveniste of the ISERM laboratory in Paris indicate that there remains, possibly, some sort of impression or “molecular memory” in water of the substances it has been exposed to. This “memory” is carried from one dilution to the next. Benveniste showed that, in comparison to placebo dilutions, homeopathic dilutions (D25) of IgE (immunoglobulin E) retained their effectiveness (Schiff 1999:49). Scientists investigating the “etheric, formative forces” of biodynamic or anthroposophic theory come to similar conclusions. Theodor Schwenk, who investigated the impressionability of water in connection with biodynamic agricultural preparations, refers to water as a “sensible chaos,” a dynamic substance that can be sensitized or “programmed,” especially when rhythmically stirred or shaken (Storl 2000:353, 81).

For East Asians the fact that water takes up and stores information is common sense. Water is pure *yin*, and *yin* is—in contrast to *yang*—by its very nature receptive, sensitive, and passively incorporating. The Japanese scientist Masaru Emoto tried to present this in the form of picture images by photographing the fine crystal patterns formed from different water sources and springs. He was able to show that the ice

crystal patterns from the water pipes of big cities or polluted rivers are generally disharmonious, incomplete, or distorted, while water from healing springs, sacred wells, or unpolluted mountain streams produce crystals that are well-formed and harmonious. It even makes a difference if water had mantras or good words uttered over it. Water in contact with healing herbs or flowers also produces harmonious crystal patterns characteristic to the plant species it has had contact with (Emoto 2000).

The Theories of “Vitalism” and “Miasma”

The philosophical background of Dr. Hahnemann’s teachings is less well known than the dilution principle and the doctrine of similars. Hahnemann believed that all beings have a basic life energy, or *dynamis*, which permeates the entire body and keeps the life processes going. This is similar to Rudolf Steiner’s vitalistic concept of an etheric force or form-giving principle underlying all life’s processes. When this vital energy leaves the body, the person dies. To put it in Hahneman’s own words:

When someone is in good health, this life energy presides over that person, keeping him/her wonderfully intact, as seen in a marvelous harmony of feelings and activities. When this is the case, the spirit in the person is free to work through a healthy body and fulfill its ultimate purpose.

—HAHNEMANN (1999:§9)

In later years Hahnemann occupied himself with the metamorphosis of illnesses, referring to sicknesses that seem to have been cured but then came back in a new form together with new symptoms. In such cases, it is as if the life energy, which permeates the body, has been disturbed by a deeper-lying agent of disease. This disturbed state becomes visible as the symptoms of the sickness. But the symptoms should not be mistaken for the cause, nor be considered as the basis of the disease. The source of the disease lies beyond the symptoms and is not of material nature.

Hahnemann accuses his colleagues, the allopathic doctors, of stopping short at the symptoms. They attempt to get rid of them by means of scalpel, bloodletting, and poisonous chemicals. If it works, they talk about successful healing. But in this way they only drive the sickness—contrary to the natural process—deeper into the body, from the skin to the muscles and bones, and if they are especially “successful” in their efforts, into the inner organs and the nervous system. But the natural progress of a disease always goes from the inside to the outside, from the vital organs to the surface, until it reaches the skin—visible as a rash, pimples, lumps, or warts, only to slowly disappear entirely. By fighting the symptoms with their poisons and torturous methods, allopathic doctors actually weaken the life energy or *dynamis* of the patient. A true art of healing should see to it that the life energy is regained, maintained, or strengthened. For that reason it is important, according to Hahnemann, that a person minds what he eats and drinks, that he lives in a healthy place (not in cellars, moist rooms, or closed-off apartments),

enjoys enough fresh air and exercise, avoids excessive grief and worry, but also, equally important, avoids false medical treatment (Hahnemann 1999:§77, §79)

After many years of practical experience, Hahnemann concluded that the disturbance of life energy, which reveals itself in the form of chronic ailments, is essentially based on the influence of “miasmas.” The concept, which Hahnemann introduced into medical vocabulary in 1828, is derived from the Greek *miasma*, meaning defilement or pollution. It was used in Hahnemann’s time to designate foul gaseous exhalations given off by putrefying matter or fetid swamps, causing disease, such as malaria. He described three basic miasmas, which manifest themselves in a multiplicity of ailments: **psora**, **sycosis**, and **syphilis**. Hahnemann admitted that these terms were rather arbitrary, but nonetheless served the purpose of describing the primary manifestation of the miasmas as they appear on the skin: the psoric or psoriatic manifestation showing itself as red scaly spots on the skin; the sycotic manifestation resulting in chronic inflammation of the hair follicles, cauliflower-like growths, and warty proliferations (*condyloma*); and the syphilitic manifestation evidenced by the chancre sore and venereal abscesses.

Psora

The Greek word *psora* means “scabs” and is presumably derived from the Hebraic *tsorat* meaning “leprous.” In today’s medical terminology psoriasis might also be called scabies, scurf, or mange. To Hahnemann, however, psora was “a thousand-headed monster of various diseases with different symptoms and the source of countless protracted ailments.” The psoriatic patient literally “does not feel well within his skin.” Itching, oversensitivity, and nervousness characterize such a patient; the accompanying mental state includes undue excitement, worry, jealousy, fearfulness, and tension.

Diseases that fit into this category are various nervous conditions, hysteria, hypochondria, melancholy, falling sickness, cramps, osteomalacia (softening of the bones), scoliosis (deformity of the spine), kyphosis (hunchback), bone rot, cancer, port-wine stain (hemangioma), gout, and countless others (Hahnemann 1999:§81). For each individual and in each new generation this age-old “contagion tinder” manifests itself in yet another form. Little by little, after a few hundred generations and a sojourn through many millions of human organisms, it is incredibly well trained and adapted.

His observations convinced Hahnemann that most people today are latently infected by psora. He estimated that seven out of eight chronic illnesses are based on what he called the psoric miasma.

The main healing agent proposed by homeopathy for such psoriatic ailments is sulfur.

Sycosis

Syko is the Greek word for the fig. Sycosis refers to condyloma, or a proliferation of wart-like tissue near the anus or the vulva. According to Hahnemann, a primordial disease agent, plaguing humanity for millennia, manifests in various forms: viscous

discharge as found with gonorrhea, infections, lumps, fatty swellings, polyps, warts, and fungal infections. Depending on the circumstances, emotional aspects such as depression, fear, fixation, compulsion neurosis, or an inferiority complex can accompany this miasma.⁶⁴

Hahnemann claimed the main healing agent for sycotic ailments to be thuja (*Thuja occidentalis*).

Syphilis

Clinical syphilis, or *lues*, shows itself in three stages. After the infection occurs, an abscess, the so-called chancre, appears on the genitals, but occasionally it can appear on the fingers, lips, or other areas. At the same time, the lymph glands swell. After one to two months the infected person begins to feel sick. Fever, headaches, and pain in the limbs set in. This is often accompanied by oozing, foul-smelling abscesses and rashes. Skin, mucous membranes, and inner organs are afflicted. The symptoms come in bouts; they go away only to return. Syphilis is a master of deception; in the course of time it can imitate various illnesses and diseases. In its final stage syphilis destroys bones and joints, and attacks kidneys, liver, and nerve tissue. Hard knots, granulomatous swellings called *gumma*, form particularly on the skull, as well as on the nasal bone, shinbone, or breastbone, disintegrating the bone tissue. The brain and its surrounding tissue, the meninges, are also attacked and destroyed (Köster-Lösche 1989:53).



The syphilitic (French engraving, sixteenth century)

When Hahnemann spoke of syphilitic miasma he didn't only mean the characteristic lues as just described. He meant a variety of diseases, whose symptoms are the degeneration and destruction of tissue, organic dysfunctions, abscesses, and spasms, as

is the case with osteoporosis, muscular atrophy, Alzheimer's disease, Parkinson's disease, AIDS, or syphilis. Also included are hereditary anomalies, deformities, birth defects, spina bifida, and addictive tendencies. The syphilitic miasma literally devours the life energy (*dynamis*), or as traditional Chinese medicine would state, it destroys the kidney *jing*, the life energy that we inherited from our parents, which is the basis of our reproduction and which we should be able to enjoy up to a high age by maintaining a sensible lifestyle and diet.

On the psychological level the syphilitic miasma manifests itself in various perversions, violence, addiction, and destructive and aggressive behavior toward others and oneself (auto-aggressive, suicidal tendencies). In this context it is interesting to mention the statement made by Heidi Mettler in Zurich, who experimented with homeopathic teasel tinctures and found it helped her overcome self-destructive tendencies. She concluded that teasel dampens psychosomatic auto-aggression.

The main agent that Hahnemann named in connection with this third miasma is mercury (*mercurius*)—of course, in harmless homeopathic dilution.

According to the homeopathic practitioner S. Ortega, one can see in psora a condition of general *underfunction*, a lack of reaction and defect, impaired or weak function in the organism. In sycosis one can observe an *overfunction*, an overreaction or hyperactivity of organic processes. In syphilis one can make out a *destructive function* and a general dysfunction (Pschyrembel 1998:197). Indeed, syphilis leads progressively to the destruction of body and mind.

Modern medicine considers Hahnemann's doctrine of the miasmas to be outdated, something best left in the archives of medical history. His teachings appear to be an attempt to explain the mechanisms of contagion, disease transmission, and infections. Hahnemann could not have known about bacteria, germs, microscopic fungi, viruses, and other microbial life as the actual cause of disease. The practitioners of classical homeopathy disagree. They feel that Hahnemann's miasma theory has not been understood. Miasmas are not identical or infectious germs. Rather these "contagious evaporations and contaminations" are to be understood as metaphysical agents, as disease archetypes. Immaterial causes, such as moral impurity, alienation of the soul from its divine source, resentment, lack of love, and sentiments of hate, envy, and greed descend from the mental plane to the physical. This is what paves the way for the miasmas to begin their destructive work. An unfriendly touch from a hand, loveless sex, a blow of breath or a cough from a person bearing ill will, or a look from an "evil eye" can possibly bring on illness. According to the *Magic Handbook of Sympathy*, written in 1857 by an anonymous occultist, "an evil look shooting from the eyes or evil breath blown in someone's direction can pass on disease, especially when there is bad will behind it." (Kremp 1996:263). From a shamanistic point of view this is understandable. It is an excursion into what anthropologists call sympathetic magic. Expressed in modern terminology, one can perhaps define the miasmas as negative information patterns or as morphogenetic fields that continue to be operative over generations and long time spans.

Mercury and the New Syphilis

According to the view of classical homeopathy, the diseases in earlier times were either of a psoriatic or a sycotic nature. But in modern times diseases are ever more determined by syphilitic miasma. One could say we are living in a syphilitic age, in a state of increasing “syphilization.” The terrible syphilis epidemic, which broke out at the beginning the sixteenth century, was combated with mercury compounds, then later outbreaks were suppressed with the arsenic compound salversan and most recently with penicillin. But a miasma cannot really be destroyed, as envisioned by conventional medicine.

Now it seems this destructive syphilitic miasma is returning in different forms such as AIDS, cancer, and autoimmune diseases. Moreover, in terms of social pathology, this destructive miasma reveals itself in such things as terrorism, suicide bombings, state-sanctioned torture, addiction to drugs like crack, speed, and heroin, or life-negating science such as nuclear fission or gene manipulation—the former implying the breakdown of matter and the latter the disarray of genotypes that had evolved along separated lines for millions of years.

Classical homeopaths interpret these happenings as the expression of brains suffering from latent neuro-syphilis. The breakdown of societal ties, neighborhoods, and families, the extreme turbulence of the financial system, the breakdown of personality, and similar decadent guises are all included in the syphilitic miasma.



The spirit of syphilis (F. Rops, nineteenth century)

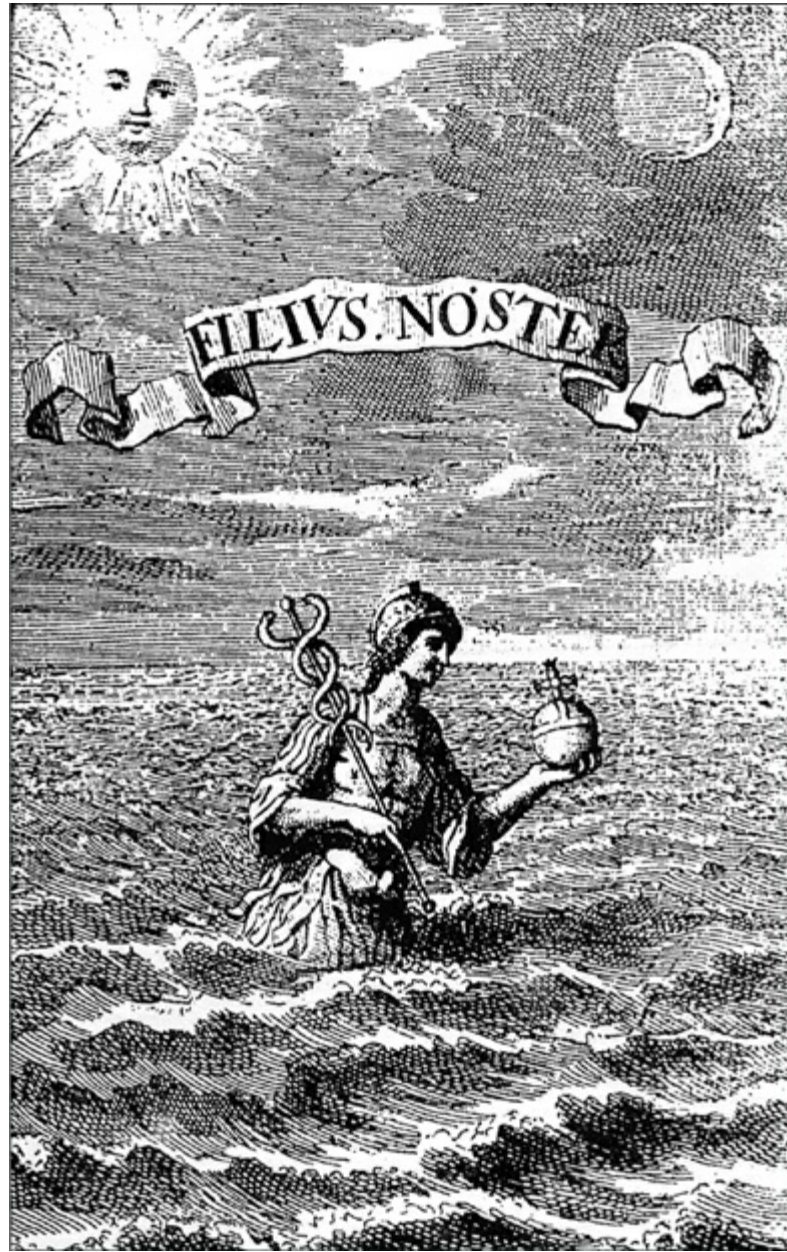
Classical homeopaths interpret Lyme disease as a metamorphosed form of lues, or syphilis. Both are connected to spirochetes. Lyme disease, just like syphilis, has three discernible stages.

- Shortly after being infected, a first symptom appears on the skin. With Lyme disease it is the expanding red ring (*Erythema migrans*); with syphilis it is the chancre sore. Both of these cutaneous symptoms disappear shortly afterwards, even without treatment.
- After a period of latency the second stage brings muscle, joint, and bone pain. Both diseases are masters of deception, capable of imitating a large variety of illnesses, and are therefore often misdiagnosed.
- In the third stage the nervous system is affected. Nervous breakdowns leading to the point of a psychosis, schizophrenia, or even complete mental derangement and apathy are all possible.

Our current scientific paradigm is not comfortable with the thought that Lyme disease is a new expression of the old syphilitic miasma. Admittedly, the respective spirochetes *borrelia* and *treponema* are closely related and cause similar symptoms, but other than that there seems to be no connection. Perhaps, however, there might be some kind of

“morphic resonance,” as the biologist and nature philosopher Rupert Sheldrake formulates it? We know the concept of resonance (Latin *re* = again, plus *sonare* = to sound) from musicology. When a tuning fork is struck, the fork next to it begins to vibrate and sound along at the same frequency. According to Sheldrake, the experiences and habits of former generations are in resonance with those of the new generation; they “sound onwards” independent of time and space. He observes that this morphic resonance does not become weaker with distance, and that it can work from the past into the present. It is not the energy that is transmitted, but information (Sheldrake 1993:131). This statement should be taken seriously because Sheldrake is not a mushy mystic but a respected experimental scientist. The hypothesis is, as he admits, controversial, yet it still can be checked experimentally and possibly falsified. Living organisms, he concludes, do not only inherit their genes but also their specific morphogenetic fields. Genes are transmitted from generation to generation in material form and enable the progeny to synthesize certain kinds of protein molecules. Morphogenetic fields, on the other hand, are passed on nonmaterially, not only from parents to their children, but basically from the entire species along to the entire next generation (Sheldrake 1993:113). The syphilis epidemic, which afflicted humanity over hundreds of years with dwindling intensity, is part of our collective experience. It is part of our matrix or morphogenetic field that is with us to this day. In this sense, it is well worth considering the homeopathic viewpoint that Lyme disease has a morphic resonance with syphilis.

Hahnemann was convinced that like cures like. Mercury (quicksilver) was his main agent to arrest the loss and disintegration of the life force, or *dynamis*, due to the syphilitic miasma. Of course, he did not administer mercury, as his allopathic adversaries did, in the form of the coarse, highly toxic mercurous chloride or calomel (Hg_2Cl_2) but rather in its homeopathically highly potentized, diluted form. With this in mind, let us look now in what way quicksilver has an affinity to syphilis.



Mercury, the spirit of quicksilver (Baro Urbigerus, Besondere Chymische Schriften, Hamburg, 1705)

According to the old planetary teachings, the scintillating fluid metal called quicksilver belongs to the god Mercury, the god with wings on his shoes. As a planet visible to the naked eye, Mercury speeds along faster than the other planets—as seen from the earth, it travels its sidereal course, always near the sun, through the twelve regions of the zodiac in a span of only eighty-eight days. In comparison Mars takes two years to pass through the zodiac, Jupiter takes twelve years, and ponderous Saturn takes thirty years. Mercury, who the Greeks called Hermes, is the messenger of the gods, ambassador, and as such a master of language and quick, shiny intelligence. It was he who, at the beginning of time, endowed humans with the ability to think and to speak. But he also taught them to twist words, to lie, and deceive. Mercury-Hermes is the shaman of the gods, a transgressor of all borders and boundaries. As a shaman traveler he is able to pass the threshold to the realm of the dead and return unscathed. It is he who was able to free the divine flower maiden, Persephone, from the clutches of the

underworld; he also is the one who accompanies the dead over the threshold of Hades. As a border crosser, he is also the patron of healers and doctors, and merchants, but also of quacks, thieves, liars, spies, and actors. He is called a master of disguise, the wearer of myriad masks. Mercury goes everywhere, unrecognized and well disguised.

The symbol of Mercury is the serpent. As his sign and emblem of authority, the god carries a staff with snakes wound around it. This Caduceus or Aesculapian staff has become the symbol of medical doctors and pharmacists. It is actually derived from the shaman's staff or magic wand. The two criss-crossed winding serpents facing each other are the symbol of the *pharmakon*, a classical Greek concept meaning drug, medicine, magic potion, as well as poison. Thus the image implies the delicate balance between venom and remedy, a balance that any healer must master. Since Mercury is also the lord of the flow of commerce and currency, of traffic that knows no borders, he is also the patron of traders, merchants, and brokers. The dollar sign (\$) has its origin in the magic staff of Mercury.

In the body, Mercury rules the lungs and breathing. In these organs, the inner and outer world, the microcosm and macrocosm, the human soul and the world soul meet and mingle with the inflow and outflow of air (*pneuma*). According to the medieval doctrine of humors, Mercury also rules the ebb and flow of body liquids, in particular the lymph. The youthful god himself was depicted as transsexual and hermaphroditic; he had no problem breaching sexual borders. Neither were the borders of decency binding for him. Being a typical shaman he knows no shame. He is a clever and fast talker, the mentor of the talk show host, politician, the devious rascal, the con, and the court jester at the court of the king. As a clever talker, jester is best able to tell the king such things that no one else would dare say—sometimes even the bitter truth.

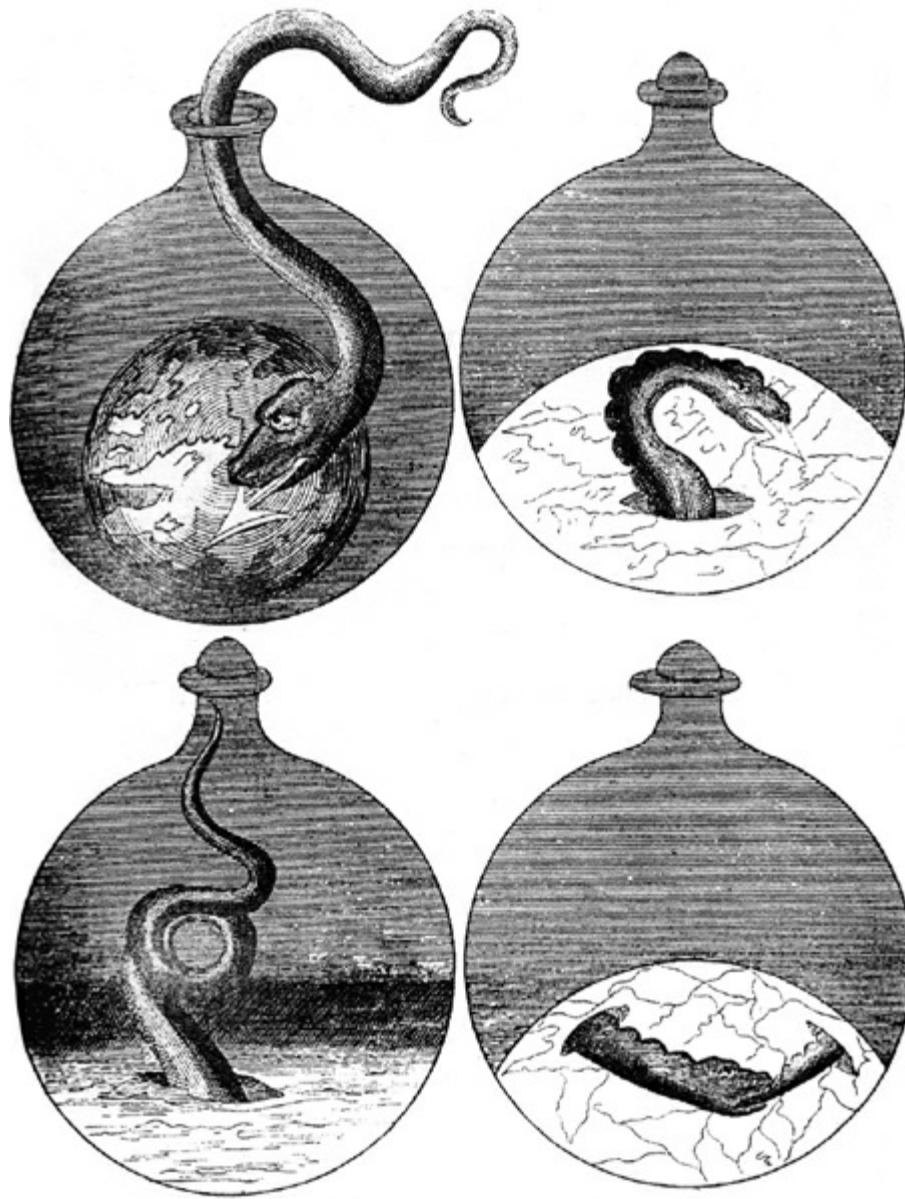
Considering these images, we can easily recognize in Mercury the archetype that rules our age and society. He personifies the spirit of our times, our *Zeitgeist*. He commenced his reign as the stodgy Middle Ages waned at the close of the fifteenth century, when Columbus broke through the confines of the medieval world and the age of global commerce began. As the god of rational, calculating thinking, he also heralded the era of mechanical devices, starting with clocks, which objectified time, and mills, which Don Quixote, representative of an earlier age, tried to prevent. The age of science and machinery replaced the age of belief and superstition. Even God himself came to be defined as a machine constructor, a cosmic watchmaker. The beginning of Mercury's rule was also marked by the outbreak of the syphilis epidemic, after Columbus returned from the New World. This epidemic, which spread like a wild fire, was at first called the "serpentine disease" (Latin *serpens* = snake).



Mercury-Hermes, with winding snakes (Stolzenberg, Frankfurt, 1624)

Is it mere coincidence that the spirochetes responsible for the scourge are indeed fast-moving, miniscule “serpents” that wind through the body? The borrelia responsible for Lyme disease also look like miniature snakes when seen with the microscope. They are quick-moving, evasive, and barely tangible, like the fluid metal mercury. As we have seen, they constantly change their form, losing their serpentine, or corkscrew form and encapsulating themselves or taking on globular forms that make them nearly invisible, only to return to their winding snake form again. They hardly let themselves be fettered, either in laboratories or in any kind of tests. They also cross borders with ease, overcoming the blood-brain barrier; they easily go from one kind of animal host to another, from ticks to mice, deer, humans, lizards, mosquitoes, horseflies, and so on. It is difficult to determine their scope and presence. No one really knows how many cases of Lyme disease there are, or how many new infections occur annually. If the estimates projected by some Lyme experts are correct—a quarter million in the USA, a hundred thousand in Germany—then one can certainly call the infection rate mercurial.

Seen in this context, Lyme disease, this new edition of the virulent treponema plague, belongs to the mercurial age, which is currently speeding like a hurricane toward its culmination. We see our age’s financial geniuses, business tycoons, politicians, and masses of tourists jetting all over a world that has become a globalized bazaar. In the process, racial and sexual barriers, physical and metaphysical borders are falling. Satellites, the Internet, and mass media transmit a flood of data, images, information, and disinformation around the world. An electronic tsunami of trillions of virtual dollars, euros, and yen sweeps around the world each and every day. Psychedelics and designer drugs—at least so it is believed—break through metaphysical barriers that once only shamans were able to cross, mainly by practicing harsh asceticism. Actors and entertainers, who in ancient times shared the humble status of beggars and vagabonds, now play the role, for better or worse, of heads of state and governors. Speed-freak Formula One car racers like Michael Schumacher are celebrated like demigods. Personal computers and the TV screen are altars before which communion with the mercurial god is celebrated daily. None of this mercurial activity has any depth, as the dazzling mercurial god has neither the wisdom of Jupiter nor the weight of Saturn.



Mercury permeates and fertilizes the world (J. C. Barchusen, Elementa chemicae, Leiden, 1718)

Name Magic

The three miasmas appear in many different ways and manifest in thousands of symptoms. For conventional medicine, these symptoms constitute distinct, separate diseases, with unique names. Using a biological model, medical practitioners classify each illness or disease as though it were a zoological species. Microbe hunters, the heroes of modern medicine, such as Robert Koch or Louis Pasteur, were convinced that each single sickness resulted from a specific kind of pathogenic microbe.

Hahnemann, by contrast, saw the symptoms of various diseases as an indication of a more basic decline of the life energy. Like him, his followers also do not regard microorganisms as the reason for disease; rather, they hold that microbes come along to colonize tissue that is already weakened and has lost its life energy. In a similar way, bark beetles infesting pine and spruce are not the cause of the trees dying; instead, they

simply colonize those forests, which have already been weakened by electromagnetic fields created by various transmitters, acid rain, adverse weather, and other factors.



Robert Koch as a microbe hunter

Hahnemann also warned about getting misled by medical terminology. He saw the problem of reification of disease names and diagnostic terminology. In his view, there are numerous secondary symptoms covering an underlying primary miasma. Factors contributing to the secondary symptoms include the patient's lifestyle, his good or bad habits, habitat, social environment, heredity, and basic constitution. Each of these factors will give a different slant or expression to what is basically a state of "being out of tune." Medical scientists and doctors tend to see each of these expressions as separate illnesses, which are then given names. But this is misleading, for they are mere symptoms. The doctor, Hahnemann wrote, should treat the individual patient, not the name by which an illness is designated.

How many ambiguous and incorrectly understood medical terms have been invented to describe different states of ill being! Terms such as cold fever, jaundice, dropsy, consumption, leucorrhoea, hemorrhoids, rheumatism, stroke, cramps, hysteria, hypochondria, melancholy, mania, diphtheria, paralysis, and so forth. One treats these conditions with a set of standard medical procedures, falsely assuming they are firmly established, fixed objects!

—HAHNEMANN (1999:§81)

To put it in other words, diseases and illnesses are not things that can be classified, but ever changing processes developing out of a nonmaterial, spiritual substrata or miasma. "This useless and misused terminology should not influence the healing art of a true doctor!" (Hahnemann 1999:168). He continued: not the name of a disease, but the exact empirical observation of the clinical state of the individual patient should be the primary focus of a medical practitioner.

According to this way of thinking, there is no such thing as AIDS, swine flu, cancer, or

Lyme disease. Or, as Rudolf Steiner once put it, “ ‘There are no sicknesses, only sick people’ ” (Steiner 1961:79). Dr. Edward Bach, discoverer of the Bach flower essences, was equally certain that in the phenomenal world, the world of appearances, things are in flow. They are not fixed once and for all. That is especially true for illness and disease. Even though medical terminology makes it seem as if though one were dealing with concrete objects, one is really dealing with continually changing states and appearances. Bach, a keen observer of subtle vital energies in the body, claimed that the diseases are not primarily explainable from a mechanical, chemical, or even biological basis; rather, they are the result of energetic disharmonies, which themselves are ultimately caused by untrue feelings, attitudes, and unsound imaginations and beliefs (Scheffer and Storl 2007:53).

Clemens Kuby, a student of Buddhism and friend of the Dalai Lama, overcame with the help of meditative practices, what doctors called irremediable paraplegia. His experience led him to the conclusion that the worst thing is to accept the finality of a diagnosis. That amounts to imprinting the idea in one’s mind that one “has” this or that disease. It literally programs that individual. He writes: “I simply do not acknowledge the symptoms as disease. I ignore them. I do not give them a name and act as if it were a rumor that someone came up with.... Discomforts which have no name disappear sooner than later” (Kuby 2005:44). Kuby’s viewpoint is obviously radical. Nonetheless, he seems to have a point: conventional medicine engages in “name magic.” Anthropologists have observed in various cultures the belief that in knowing the name of a thing, one has power over it. We could call it the Rumpelstiltskin phenomenon. There certainly seems to be name magic involved with the phrase “Lyme disease.” The disease is so elusive and has so many appearances that there are in fact some people, including doctors, who seriously ask: “Lyme disease? Does that really exist?”

Homeopathy for Lyme Disease

The homeopathic **tick borne fever nosode D200** can be taken to prevent ESME right after having been bitten by a tick. It continues to take effect within the first six hours after the bite and is also supposed to help avoid the side effects of an allopathic ESME vaccination. Dosage: 2–3 drops of globules, repeated after ten minutes.

Many homeopaths believe that the **Lyme disease nosode D200** or **C200** can also be used as a preventive measure against becoming infested by Lyme disease spirochetes. It lasts for half a year and should then be repeated.

There is also a first-aid medium in homeopathy for lumber workers, nature lovers, hikers, campers, and fishermen, and anyone else, of course, who has been bitten by a tick: **Ledum C30** (*Ledum pallustre*, or Labrador tea; British wild rosemary). Dosage: for the first three days, one globule per day; then, on the sixth and twelfth day, one globule, in addition, per day of the **Lyme disease nosode** (Stolze 2006:50). In traditional herbal healing, the aromatic leaves of Labrador tea are used to make a diuretic and sudorific brew, helpful for rheumatism and various forms of arthritis. In large quantities, the

plant is poisonous; it is abortive and can also cause nerve and stomach irritation. Various Germanic peoples are said to have used it as an ingredient in the brewing of psychedelic beer. Siberian shamans use the leaves together with juniper for trance-inducing incense (Rätsch 1998:318).

The research of Dr. Peter Alex renders a new homeopathic proposal, which corresponds very nearly to Lyme disease symptoms: **Aurum arsenicosum C200**, composed of a combination of two main anti-syphilitic preparations, *Aurum metallicum* (gold) and *Arsenicum album* (arsenic)⁶⁵ (Stolze 2006:47).

CHAPTER TWELVE

The Curse of the Sun God

*How miserable it is to spend the night alone in one's bed.
But then, how horrid to have to fear on one's way to the love's treasure,
Serpents and venom hidden beneath the rose bed of pleasure,
When in the very moment of receiving Love's gift
Hissing worries fill the head with thoughts of dread.*

—JOHANN WOLFGANG VON GOETHE, “Römische Elegien” (1948:Vol. 23,247)

*For the lips of an immoral woman drip with honey
And her mouth is smoother than oil,
But in the end she is bitter as wormwood,
Sharp as a two-edged sword;
Her feet go down to death,
Her steps lay hold of hell.*

—BIBLE (New King James Version), Proverbs 5:3–5

Toward the end of the fifteenth century, 150 years after the last great pestilence, Europe was plagued by a new abominable, virulent epidemic called the serpentine plague, also referred to as “French disease,” “genital pestilence,” *lues*, or syphilis. The latter appellation was derived from Syphilos, a herdsman in ancient Greece. During the dog days, the hottest, sultry time of summer, Syphilos cursed the sun that was scorching the green grass and refused offerings to the sun god, Apollo. Instead he offered to the head of state, the king. Apollo became very angry and sent a contagious disease, causing Syphilos as well as the king to be covered with terrible ulcers.

Lyme disease can be regarded as the younger sister of syphilis. In this context it is valuable to have a close look at syphilis as well, especially its effect on culture and the attempts to heal it. Everything indicates that syphilis originated in the New World. In Alabama the pre-historian Ales Hrdlicka exhumed pre-Columbian skeletons on which he could determine typical syphilitic damage. Skeletons in Europe with syphilitic damage are exclusively from the time after Columbus (Bergun and Laugier 1992:1462–1483). The New World disease was brought by Spanish conquistadors returning to Europe after having pillaged the Indian places of sun worship and robbing all the sun metal, gold, they could lay their hands on. The European population had no immunity to the spirochete from America. In the same way, the Native Americans died in the wake of “simple” Old World infectious diseases, such as flu and even colds, or of children’s diseases such as mumps, whooping cough, or measles.

Evil Stars

Columbus and his sailors had spent a full six weeks on the paradise-like island of Haiti, where the Caribbean women had been generous with their favors. But already on the homeward journey, according to the report of Fernández de Oviedo, the admiral's steersman came down with a new kind of pox. After the ships anchored in the small harbor of Palos on the fourth of March 1493, the sailors did what all sailors do when they finally reach land after months on sea. They drank, caroused, and enjoyed loose women. Epidemiologists agree that one single person infected by the treponema bug would have been enough—like a single spark can start a raging fire—to initiate the entire epidemic.



Spaniards take women offered to them by the Indians (Italian engraving, 1825)

Soon after their arrival, Columbus and his crew were treated to a triumphant procession through the streets of Barcelona. During the parade they exhibited the exotic plunder they had brought back—golden Indian jewelry, colorful parrots, unknown fruits and spices, and six captured Indians. The seamen were the heroes of the day, and they had the same effect on the local girls that musical stars do on their groupies today. Very soon thereafter, the so-called serpentine disease broke out in Barcelona. The hospitals filled with court gentlemen and ladies suffering from ugly ulcers, buboes, black pustules, and abscesses. Fernando and Isabella, king and queen of Spain, fled to the mountains; they forbade Columbus to bring any more Indians as slaves.

The very same year, the twenty-four-year-old French king, Charles VIII, descended upon Italy with a large troop of soldiers, mercenaries, and a host of harlots, in an attempt to annex the kingdom of Naples. Besides the warriors and knights were a number of dismissed sailors who had come from Barcelona among the defenders to help the Neapolitan king, Ferdinand. After three weeks of siege the Italian city surrendered,

many of the former defenders joined the French, and the victors amused themselves with the fairer sex. It did not take long before the serpentine pox or genital plague broke out in the French encampment. As an eyewitness reported, the victims were reduced to a pitiable state:

From the crown of the head to the knees, they were covered with scabs, so contagious that they were left completely alone and abandoned by all their comrades, praying for death to come to relieve them.... On their faces appeared thick wart-like growths, which broke open and stunk like the pestilence.

—GERHARD VENZMER (1929:19)

Of eight thousand Swiss mercenaries who had gone to Italy with Charles VIII, only a mere hundred and forty returned to their hometown of Bern. The city gates were not opened for them, so great was the fear of contagion. Their pleading and crying did not help them; even the lepers avoided them.

The epidemic spread as fast as the wind. Especially the ruling classes, and the aristocracy of church and state, who never took sexual morality that seriously, were felled by the so-called French disease. As it moved across Europe, the new victims blamed the country that brought it to them. The Portuguese preferred to call the new venereal disease the Castilian disease, the Polish called it the German disease, the Russians called it the Polish sickness, the Persians named it the Turkish sickness, and for the French, it was the *mal de Naples*. In India it was called the Portuguese disease, as Vasco da Gama's sailors carried it eastward to Asia.

The small red pimple, the chancre, which, like the *erythema* of Lyme disease, appears on the skin after infection, was usually not even noticed as it healed quickly. But then after a few months the second stage followed: fever and nearly unbearable head and limb aches. The only way to withstand it was to take opium. Soon after, stinking abscesses and ulcers spread mainly over the face and hands. In addition, wart-like growths (*condyloma*) proliferated, mainly in the genital areas.

As the devastating epidemic continued, helpless doctors combed the medical tomes of masters like Galen, Avicenna, and Rhazes, but the all the planetary correspondences and theories of humors provided no help. They tried poultices with cooling, softening herbs under the rule of Venus, such as linseeds, plantain, fenugreek, mallows, and violets. Mastic, honey, and goose fat were tried. Medical plants under the rule of Mars, such as the astringent roots of daffodils, would surely be able to stop the rampages of an angry Venus (Griggs 1997:30). Yet, all the traditional healing plants and practices, which were otherwise successful, brought no relief. Neither blessed healing oil that the Church offered, nor the protective saints—suffering Job, Saint Minus, who had once healed untouchables, Saint Fiacre, patron of vegetable gardeners and healer of cancer, scabs, and hemorrhoids—were of avail. The first wave of syphilis was inevitably fatal for the infected; the Europeans had not yet built up any immunity.



Soldiers parade with maidens and entourage (woodcut from H. S. Beham, sixteenth century)



Saint Minus, patron of the French disease (woodcut by W. Harner, fifteenth century)

The confusion regarding the strange new disease, which shocked European society of the time, is similar to the confusion in our days regarding Lyme disease. What could be

the cause? Was it befouled air? The result of licentious sex? Were the “ruinous miasma of adverse stellar influences” responsible? Emperor Maximilian had little doubt that this “evil pox” as well as a series of bad harvests and weather catastrophes that devastated the realm of the Holy Roman Empire between 1490 and 1495, were the just punishment of God Almighty. Consequently, he proclaimed an edict against blasphemers. Scholars held astral influences at fault. Had there not been, just a few years earlier, a “bad constellation” of the “malicious” planets, Mars and Saturn, within the sign of the Scorpion? Scorpio being, *nota bene*, the zodiac sign of sex! Jupiter, one of the “good” planets, was also present in the conjunction but his power was suppressed by Mars and Saturn. The Spanish scholar, Gomara, on the other hand, suspected that the cause for the disease lay elsewhere: the unseemly practice of sodomy by the South American natives with llamas. The Englishman, John Josselyn, considered cannibalism as the main cause, and Ulrich von Hutten believed that the infection had its origin in miniscule flying worms (Vogel 1982:150).



Emperor Maximilian

Today, one assumes that the spirochete, *Treponema pertenue*, which in the Caribbean causes endemic yaws (also called frambesia) and is passed on by insect bites or close skin contact, mutated in Europe into the syphilis spirochete (*Treponema pallidum*) (Bergun and Laugier 1992:1481). Yaws is clinically and serologically indistinguishable from syphilis (Pschyrembel 1994:492).

The Right Remedy, Holy Wood or Quicksilver?

When doctors realized that none of their otherwise successful methods from the tradition of humoral pathology⁶⁶ were working with syphilis, they remembered the old adage: *ubi malum ibi remedium* (“where the disease is, there is also the remedy”). Thus they searched for a remedy in the New World and did, in fact, find something effective in the healing lore of the aboriginal women who shared their beds with the Spanish colonists. As soon as this became known, wealthy European syphilitics sailed to the New World to undergo treatment. The therapies in the huts of the natives, probably undertaken by

female shamanic healers, were indeed successful.

There are numerous descriptions of the treatment. One is from the report of two young French aristocrats who had previously tried various cures in Europe without any success and were healed by an Indian woman in Puerto Rico. They wrote that the woman gathered twigs from the beautiful blue-flowering guaiacum tree, chewed them, and then boiled them in a clay pot. Every morning, they had to drink large amounts of this brew and then spent the rest of the day doing strenuous activities that promoted profuse sweating. After six weeks the ulcerations disappeared and they went back to Paris having fully regained their health (Griggs 1997:36). Petrus Martyr de Angleria, an Italian serving a secretary for the West Indies Council of the Spanish Crown, was the first to describe the indigenous cure for syphilis, which he observed among the Taino Indians of Hispaniola (Haiti). In his book, which he started writing as early as 1493, he reported: “These sick get successfully healed if they follow the strict rules leading to the cure. They have to drink the juice of what is known in Española as guaiacum wood and abstain from food or habitual drinks, especially wine, for thirty days.” In 1526 Gonzalo Fernández de Oviedo y Valdés also reported of strict diets, drinking decoctions of the holy wood or pox wood (*guaiacum*), and copious sweating.

GUAIAECUM TREE (GUAJACUM OFFICINALIS AND GUAJACUM SANCTUM)

The evergreen tree from the bean-caper or caltrop family (*Zygophylliaceae*) is also called pox tree, holy wood tree, or French wood tree. The tree, whose charmingly beautiful, light blue flower is the national flower of Jamaica, inhabits the entire Caribbean region, from southern Florida all the way down into the South American forests. In Europe, the guaiacum tree was known to grow in the Tertiary period. Fossil wood dating from the Oligocene 25 to 38 million years ago was found in the lower Rhine regions.

The name *guaiacum* comes from the extinct language of the Caribbean Indians. *Guajacan*, *hujacam*, or *hoaxacan* means “wood of life.” With regard to its healing properties the pharmacists called it *lignum benedictum* (blessed wood), *lignum sanctum* (holy wood), or *lignum vitae* (wood of life). Petrus Martyr, cleric and scholar, wrote in his *Decantes* (1511–1525) that “the wood is chopped and crushed, and a medicine is cooked, which drives the evil venereal disease out of the bones and the spinal marrow” (Wolters 1994:142). Until this day, South American Indians use guaiacum wood decoctions for rheumatism, syphilis, anoxia, and fatigue (Rätsch 1987:129). The enthusiasm for the healing wood led to its exhaustive exploitation, making the tree nearly extinct. Today it is listed as an endangered species. Ethnopharmacologist Christian Rätsch writes about its effect and its active ingredients:

The amorphous resin tastes sharply acrid and is composed of guaiaconic acid, guaiac acid, crystallized guaiac resinous acid, yellow coloring, and a kind of gum. The wood also contains an essential oil of guaiacol, guaiasulen and guaiacoxide, vanilla and saponins. The ingredients are sudorific and diuretic and activate the kidneys and the liver (Rätsch 1987:132).



Many hopes were awakened by these reports. The Fugger family of Augsburg, the richest merchant and banking dynasty of the time, immediately requested monopoly control for the import of guaiacum wood from Emperor Maximilian. He granted it, in return for having his huge debt with the Fugger Bank waived. Besides the gold and silver robbed from the Aztecs and Incas, the Spanish galleons now carried masses of guaiacum wood to Europe, where it was sold to apothecaries. It was a booming business. However, the wood is so hard that it can hardly be grated. With a density of 78 to 84 pounds per cubic feet, the wood is, in fact, the hardest and heaviest of all woods; it is so heavy that it doesn't float in water but sinks. The pharmacists hired prisoners to chop, chip, and grate the wood before it was soaked and boiled into a medication. There is still a *raspelhiüs* (grating house) in the old part of the city in Strassburg (Strasbourg), where prisoners were forced to grate pox wood.

The humanist Ulrich von Hutten, who contracted the venereal disease as a young man, tried various cures. When he tried a therapy with guaiacum he was overjoyed at the result and enthusiastically endorsed the drug. However, when at the age of thirty-five he died a pitiable death—either as a result of recurrent syphilis or of the quicksilver “cures” he also tried—the efficacy of guaiacum was put into question. His death only confirmed the suspicion of many doctors, including Paracelsus, of that time that the highly praised poxwood cure was useless.



Ulrich von Hutten

Ulrich von Hutten was not completely wrong, though. We know that guaiacum wood is a valuable remedy for syphilis, providing it is correctly administered. The Indians did not actually use the wood by itself; rather, they used the resin. They obtained the resin by cutting the living branches and placing the tops in a burning fire. In this way, the reddish brown, resinous sap would ooze out of the cut surfaces. This was done at night because the resin reacts photochemically with sunlight, turning greenish and losing its pharmacological potency. The resin was then gathered and formed into nut-sized pills, which had to be stored in a dark place. Directly before using it, the resin was pounded into powder and dissolved in hot water (Stammel 1988:37). Generally the cure took six weeks, while patients observed abstinence and a light diet and took daily sweatbaths. Under these conditions the phenol derivative guaiacol in the resin is able to eliminate the *treponema spirochetes*. It worked for the Indians, but to the Europeans that whole regimen seemed far too exotic and complex. For the doctors the “ritualistic” aspects of sweat lodge, diet, and preparation of medicine seemed unnecessary. Already back then they tended to focus on the substance of the *materia medica*. Their reductionism rendered the therapy ineffective.

Around 1530 the doctors started abandoning guaiacum, concentrating ever more on the mineral drugs prevalent in the original alchemical tradition of the Orient. They recalled the so-called Saracen salve (*ungentum saracenum*), with which the crusaders had made their acquaintance a few centuries earlier. Traveling barbers and surgeons still used this toxic ointment and had moderate success in treating scabs, skin parasites, and leprosy with it. The salve was indeed much easier to use than the complicated guaiacum cure. Unfortunately, it was extremely poisonous. In addition to mercury, it also contained spurge (*Euphorbia hirta*), which was otherwise used as a vesicant (that is, to raise blisters), and oil from larkspur (*Delphinium staphisagria*), which was otherwise used to poison lice, mice, and rats. The ingredients were cooked in pig fat, which is easily

absorbed by the skin. Even though patients treated with the Saracen salve were progressively poisoned by it, the ointment seemed, indeed, to be the only treatment that was effective immediately.

The Beginning of Chemical Antibiosis

Even Paracelsus, who was by no means hostile toward plant medicines, propagated the use of mercurial salve for the abominable disease. The Fuggers, who had monopolized the guaiacum import, sensed a new profitable market and immediately secured the monopoly for quicksilver; they bought mercury mines in Spain. The loss of faith in healing plants and the turn to mineral medicaments was a shift in the history of medicine. It was the beginning of chemotherapy with all of its consequences. From that moment on, it was considered a sign of modernity to disdain plant medicines as primitive, outdated, old wives' lore. The use of alchemically concocted mineral and chemical substances was absolutely "in." They worked rapidly and dramatically, making patients sweat and salivate profusely, causing them to urinate, letting the pulse race, calling forth tremors and other strong physical reactions. The drooling and sweating—actually, signs of poisoning—were interpreted as "drawing out the bad fluids"! Traditional herbs, by comparison, seemed to have no results. The patient who drank herbal tea noticed hardly any immediate reaction. By contrast, the salve made the body react intensely.

The medical profession of the time understood neither the complexity of herbal medicines nor their interaction with the complex immune reactions of the body. The intuitive, clairvoyant access that traditional healers, wise women, or shepherds had to the plant kingdom was not available to physicians. For them it was so much easier to comprehend the obvious empirical effect of toxic chemicals. It was believed that through alchemistic processing—calcination, sublimation, distillation, melting, levigation, and so on—the toxicity of arsenic, mercury, lead, antimony, and vitriol could be taken out of the salves, powders, oils, and salts. A false conclusion!

By the time further healing plants from America, with which the Indians successfully cured syphilis, became known (see the Appendix, in "Antisymphilitic Plants of the Indians"), mercury salves were already firmly entrenched in standard medical practice. The only plants that remained acceptable to medical science were poisonous species, with effects similar to mineral poisons; these included poison hemlock, monkshood, or foxglove, drastic emetics and purgatives such as ipecac spurge, senna, or scammony root, and narcotics, mainly opium. In a truly reductionistic mood, the attempt was made to always find and crystallize out what was considered to be the active agent, the "quintessence," or *arcanum*. From another point of view, one could say, that it was the spirochetes themselves that brought about the paradigm change in the healing arts.

Assistants of the physicians, wearing gloves, applied the toxic grey mercury salve to the patient's entire body once a day at intervals of two, five, or six days. The doctors themselves found it below their dignity to do this kind of work. Often these assistants,

skilled in smearing the skin as well as being barbers, surgeons, tooth-extractors, and applying bloodletting leeches, set up their own lucrative businesses. Popularly they became known as “quacksalvers” or quack doctors, synonymous with charlatans and derived from the German name for mercury, or quicksilver, *quecksilber*. Indeed, the fluid metal killed the spirochetes. However, the risk was great that the famous cure could kill the host as well.

After the patient’s skin was anointed by the salve, the effect followed quickly and she or he became violently ill. Saliva flowed incessantly and massive sweating set in; the patient began to shake uncontrollably and experienced chronic diarrhea and stomach cramps. After these first symptoms had passed, the patient became apathetic and lost appetite; ulcers formed on the tongue and gums, the skin turned yellow because the liver was gravely affected, hair fell out in handfuls, and the teeth turned black and became loose. Patients became anemic and susceptible to kidney and intestinal infections. The doctors interpreted these reactions as a necessary prerequisite for the healing. The Italian physician Hieronymus Fracastor (1478–1553), a medical authority of the time, announced that the salve helped the patient to expel, via sweat, saliva, and urine, the “bad humors,” “the poisonous liquors of the lues,” from their bodies. The unfortunate patients were expected to take the procedure stoically like the heroic soldier on the battlefield. The concept of heroic medicine became synonymous with modern chemical medicine, and prevails still in today’s treatment of cancer, AIDS, and even Lyme disease. Similar to the administration of antibiotics today, patients were warned not to suddenly or prematurely stop with the application of the mercury ointment.



Quacksalver (engraving by H. Curti and G. M Minelli, seventeenth century)



Stove for treating patients with mercury steam (ink etching by Jacques Langier, Paris, 1659)

Mercury (*Mercurius dulcis* or calomel) was the miracle drug of the times—similar to radiation exposure and the penicillin shot in the middle of the twentieth century. Like penicillin later, mercury salve was prescribed for just about every illness. As recently as 1800, renowned doctors designated mercury salve as the best cure for a “chaoticized” physical body and prescribed it as the preferred medicine for forty-six different diseases, including asthma, gout, cancer, hepatitis, madness, headache, pox, digestive problems, side pains, rickets, and to clear the intestines of phlegm (Griggs 1997:183). Even babies had mercury chloride crammed down their throats. Next to mercury salve and pain-killing laudanum (opium), the two most often prescribed medications of the times, other mineral poisons and purging means were popular. An iatrogenic catastrophe of the first degree took its course in the civilized (“syphilized”) world and has continued nearly to this day, more than five and a half centuries later. The Western world suffered from stealth poisoning through toxic mercury. It is still used as an adjunctive in vaccinations and inoculations, is present in amalgam tooth fillings, and often seafood is contaminated with it.



***Mercury salve cure (from Bartholomeus Streber, A Malafranzoso morbo gallico
preservation ab cura, Vienna, fifteenth century)***

Tiny Spirochetes Wreak Big Changes in Society

The new plague as well as its therapy brought about a marked change in Western culture. Not only were the medieval bathhouses, known for their lustfulness and frivolity, shut down but social etiquette and mores, clothing, entertainment, and the entire perception of the world were affected. Where at first only soldiers and harlots felt the impact of the new disease, soon all leading elite felt the impact: emperors and kings, dukes, princes, cardinals, bishops, monks, and nuns (Köster-Lösche 1989:60). Even popes, Christ's representatives on earth, became victims of syphilis. Pope Innocent VIII, who officially legitimized the Inquisition and witch hunting, became so ill that it is reported he took a wet nurse into his bed and drank nothing but mother's milk. His doctors even tried to ease his suffering with blood transfusions, resulting in the death of three young men who were literally bled dry (Rosa 1991:128). His successor, Alexander VI, scion of the mighty Borgia family and licentious playboy, was infected. He had the preacher of repentance, Savonarola, burned alive for calling the disease, which had "caught up with the Borgias," God's punishment. The pope's son, the bloodthirsty tyrant Cesare Borgia, only showed himself publicly with a mask of black silk to hide his disfigured face. The next pope, Julius II, called *Il terrible*, loved extravagant food, drinking, and boys. His masters of ceremonies soon had to prevent prostrate pilgrims from kissing his holy feet because syphilis had eaten the bones away. His successor, Pope Leo X, who was also overly interested in boys, endured rectal ulcers that were so bad he had to be carried around on a stretcher. Seized by syphilitic madness, he ordered St. Peter's Dome to be torn down and rebuilt anew in extravagant glory. The sales of indulgences to finance the costly building project provoked protest. Luther nailed his revolutionary theses on the doors of the Wittemberg church and the Reformation took its course.

Secular rulers were no less affected. In Russia Ivan the Terrible beat his wife and son to death in a raging attack of syphilitic madness. The spirochetes had nested in his brain. Although Landgrave Philipp of Hessa was already married, he wanted, in addition, to wed a virgin woman. A popular theory of the day propagated that the vagina of a virgin or of a black female could cure the sickness—a theory still believed in Africa today pertaining to AIDS. The British heir to the throne, King Henry VIII, went through six marriages, as he could not beget healthy viable children due to the disease. All of his children were born dead, died soon after birth, or were sickly. Only Elizabeth and Mary managed to live. Henry thought himself a good Catholic, but when the pope excommunicated him for his blatant polygamy, the monarch had the cardinal and the Catholic chancellor in England murdered and declared himself the head of the Church of England. Henry, having become increasingly paranoid, died at the age of fifty-five, “stinking, swollen and covered with pus-filled ulcers” (Bäumler 1997:69). Obviously, the “King’s Grace Oyntement” which the best scientists at St. James’ College had prepared for him in order to “cool, dry and soothe his overstrained member,” had not been able to help.

Paradigm Shift

A paradigm shift, as defined by the philosopher Thomas Kuhn, is a change in the model by which a society explains reality. It is a change in the cultural construct of reality (Kuhn 1970). Syphilis, according to the medical historian Schipperges, had “an influence on the entire cultural and historical situation of the occident which is not to be underestimated.... Inquisition and witch persecution found their calamitous roots in a society living in an extreme situation” (Schipperges 1990:84). The height of the witch inquisitions, between 1550 and 1650, coincides with the worst phase of the syphilitic epidemic (Beckmann and Beckmann 1997:23). This was also the time in which a paradigm shift took place, from the intuitive, mystical-magical, visionary worldview to the rule of objective, reductionist-materialistic science of today.

The shock of the epidemic was so deeply engrained in scholars that they began to perceive nature as threatening. Nature was no longer seen as the divine feminine soul of all creation, as the mother of God, or as Isis or Sophia, full of divine wisdom, full of signs and miracles. Suddenly nature seemed to be a treacherous witch full of malevolent power that needed to be controlled. She might appear as a pretty maid or harlot—how could one be sure that no deadly venom lurked behind this façade? How dangerous to fall for her charm, to give in to her and open oneself to her! Would it not be safer to inspect her carefully first, every part of her, objectively? Sir Frances Bacon (1561–1639), one of the most celebrated fathers of modern science, developed an inductive, experimental method to investigate nature. He proposed to tie nature to the rack and force her to reveal her secrets. This should be done “mechanically, with the help of levers and screws,” much as one did with a suspected witch while questioning her (Merchant 1987:177). It should be noted that Bacon served also as a state prosecutor in

witch trials of his day. With Bacon, the objective scientist, who approaches nature as a stoic, cold-hearted inquisitor, makes his appearance. Bacon's *Nova Atlantis*, a utopian vision of a future society dominated by objective science, was published in 1627. In this new Atlantis, white-clothed scientists, working in cloister-like institutes, would, for the "good of humanity," experiment, research, dissect, and learn to make use of nature. The old idols of superstition would be mercilessly toppled from their foundations; chimerical notions of angels and plant spirits and delusions of a magical, trans-sentient dimension of nature would have no place. René Descartes (1596–1650), the master of rational thought, also left no room for sentimentality. He declared the world to be devoid of soul. The heavens and no less the organisms were to him robot-like functioning machines measurable with an abstract mathematical system of coordinates. With this kind of philosophy, the path was cleared for the exploitation of nature. Plants, animals, and even the "savage race of man" could be dealt with rationally and functionally, with no scruples, no guilt, and as the exploiter pleased. The representatives of the old magical, empathetic worldview, the nature-versed individuals of the communities, the midwives, and the old wise women merely stood in the way of progress and needed to be silenced, removed, and, if need be, burnt publicly as witches or black magicians. Their traditional knowledge about nature spirits, magical and cosmo-biological correlations, their ways of healing and the healing plants themselves were no longer considered to be of value.

KING'S GRACE OYNTEMENT

The salve that should have given comfort to King Henry VIII was to be the finest that science could come up with. It was based mainly on the writings of the Greek Dioscorides. The following ingredients were contained in it.

- **Plantain** (*Plantago major*), which softens and is astringent and wound healing. "There are no ailments that stand under the influence of Mars that cannot be healed by plantain" (Nicolas Culpeper).
- **Linseed** (*Linum usitatissimum*). The oil in the seed softens tissue and is soothing.
- **Fenugreek** (*Trigonella foenum-graecum*). The crushed seeds have a lot of mucilage, steroid saponines, and essential oils. The powder was used for furunculosis, pus-filled inflammation of tissue (*phlegmon*), and lymph node inflammation.
- **Oxeye daisy** (*Chrysanthemum leucanthemum*), similar to chamomile flowers, is used as balm for wounds.
- **White marshmallow** (*Althea officinalis*) contains much mucilage, which is soothing and softens the tissue.
- **Sweet violet** (*Viola odorata*) is cleansing with skin diseases.

Henry also experimented with sweet clover, rose water, lead, turpentine, red

coral, powdered “unicorn’s horns,” and pulverized earthworms (Griggs 1997:51)—to no avail. As a result, the scholars and scientists of Henry’s day concluded that there was no plant capable of dealing with syphilis.



Nature as a goddess: Mary in harvest dress (woodcut, 1450)

Despite all that, the elite still considered themselves to be Christian; René Descartes was even an ordained Jesuit priest. In the new paradigmatic way of thinking, God was imagined to be a cosmic clockmaker and his creation was regarded as a truly wonderful mechanical clock. God had constructed it, wound it up, and now it was ticking automatically until one day, at the end of time, it would run out of energy. Since nature had been defrocked of her magic and declared to be basically soulless matter, no bold scientist need have any reservations when dealing with it. The researcher need not have any qualms dissecting and poking about in nature’s viscera. For the bold scientist, proper worship was discovering the so-called natural laws, which were deemed the thoughts of the creator. Descartes opened the chest of a living dog, cut a corner of its heart off, and stuck his finger into the hole, proving empirically that the heart was a pump. A similar frame of mind enabled the unflinching Andreas Vesalius (1514–1564) to dissect animals and human bodies without second thoughts, since they were only “mechanical things.” In this way, the womb of nature could be forced open—and the

womb of the human microcosm as well; in 1500, Jacob Nufer, a professional castrator of animals, performed the first cesarean-section birth on a living woman; around 1600, Peter Chamberlin invented the forceps.

With the starry universe now conceived of as a giant clock, it was no longer the gods who guided the planets on their course but mechanical laws, which astronomers like Johannes Kepler (1571–1630) had been able to calculate. Copernicus (1473–1543) took the feminine earth out of the center of the universe and replaced it with the masculine sun. The paradigm shift happened in every realm! Corrective glasses for nearsighted people were discovered. Book printing was discovered. In 1600 Hieronymus Fab produced the first drawings of human embryos. And all the while during this time, “witches” were being burned and persecution by the Church of so-called nonbelievers took on an unprecedented scale. With the burning pyres, the accumulated knowledge based on the experience of generations was also destroyed—knowledge about the nature of the soul and of the soul of nature, shamanistic knowledge, and knowledge of healing. Thank heavens there were conscientious botanists—Brunfels, Bock, Fuchs, Mattioli, Gerard—who wrote down, systematized, and printed this information in the form of herbal books. The information in these books was certainly better than the new mercury-based medicine, although plant angels and miracles were not included in the herbal books, either.

The godfathers and initiators of this new era were the spirochetes. The tiny “snakes” were the pathfinders into the new Atlantis. The change they brought about affected the profane, daily life of all people. The new disease poisoned the innate trust between men and women. The Middle Ages had not been hostile toward sex and feelings of shame and guilt were generally not involved. Sexual repression started around 1500 and heightened after 1550 (Daxelmüller 1996:180). During this time the number of witch trials directed specifically at women also increased. Before then both men and women were subject to persecution by the Inquisition. When syphilis came, the seeds were sown for the disastrous battle of the genders that still rages to this day. Morose Puritans gained the upper hand, preaching against “impure, sinful coitus.” Frustrated men were increasingly cautious regarding the fairer sex. They concerned themselves, instead, with big cannons and rapid-firing rifles, with which they “penetrated and deflowered” foreign worlds. Colonialism and imperialism can thus also be interpreted as a consequence of Western “syphilization.” The women, on the other hand, became in a clinical sense increasingly hysterical (Greek *hysterikos* = suffering in the uterus).

The epidemic, as well as the mercury poisoning used to fight it, also dictated the fashions. Loss of hair, yellowish and impure skin, and stinking, weeping ulcers were discreetly hidden under fancy white powdered wigs, makeup, and perfume. Eau de cologne became a big seller. Parisian fashions replaced traditional clothes. Silk stockings, scarves, stiff collars, lace, and elegant kid gloves were fashioned in order to discreetly cover the ailing body. Women wore long skirts and bonnets. Because the mercury poisoning led to tooth loss, dentistry got a start. Experiments with tooth replacements were made. On the one-dollar bill, George Washington is depicted with swollen cheeks because of ill-fitting dentures made of hart’s teeth.

Manners were also affected. The former loud, boisterous voice of the rulers gave way to a graceful, nearly whispered tone. Chronic mucous membrane damage, hoarseness, and ulcers in the throat—a side-effect of mercury salve—were responsible for such a change in the etiquette of verbal discourse. In contrast to the hearty romping of country folk or merry round dances of the peasants under the linden tree on the village green, the social dances of the time were stiff, the movements like a ticking clock. Of course, this fit the mechanistic paradigm—people were in essence imitating machine movement and, given their ailing bodies, such minimal clockwork-like dancing was easier to do than jump about like a primitive “savage.”

Hard wooden banks and benches gave way to comfortable sofas, padded chairs, and *chaises longues*. Cushions became fashionable, making it easier for those with hemorrhoids and rectal ulcers—side effects of calomel medication—to sit. The cult of the cushion survived into the twentieth century in the respectable bourgeois living room. At the same time handkerchiefs came into use, elegant lacey squares of cloth, in order to deal with chronic sniffles, which were a sure sign of a stressed immune system. Blowing snot on the ground by pressing the side of the nostril with the thumb was definitely boorish.

Table manners also changed radically. A less immediate and more distant and objective relationship to food came into mode. One no longer ate from common bowls and pans—each individual had his or her own plate. One no longer ate with bare hands or supped with wooden spoons. One no longer bit into the meat, cutting it near the lips with a knife if it was too tough. Now one approached food in a more distant, objective manner, dissecting it with metal cutlery as though with surgical utensils. In the same way, physicians no longer got their hands involved, but treated their patients with utensils and surgical “cutlery.” At first the Church protested that the three-pronged fork had become an eating utensil, as the trident was considered a sign of the devil. However, a compromise was found: the four-pronged fork. For this reason we use a (non-diabolic) four-pronged fork to this day.

Not only was eating done more abstractly, but everything came to be regarded with new reservation and “objectivity.” Modern mothers no longer carried their babies and small children in their arms, where they could feel snug and secure and smell the familiar soothing odor of the mother’s body. They were deprived of the sound of the heartbeat that had comforted them already while in the womb. Instead, they were moved about in baby carriages. At the same time, the “child’s room” became fashionable, where each child slept alone, whereas earlier small children cuddled with parents and siblings in one bed. In upper-class families, the children were not even nursed by their mother anymore, but by a wet nurse. Later, and even farther removed from nature, bottles were considered a more modern and hygienic form of feeding. All this influenced the psyche of the children in the Western world, where they were expected to grow into reserved, cool, and objectively oriented people, who did not deal with the world in an immediate warm-hearted way, but rather in a coldly distant, analytical, and intellectual manner. Descartes’ “I think, therefore I am” (*cogito ergo sum*) is the motto of a time when the focus moved from the heart into the cool citadel of the

head. It was the time when parlors became fashionable social centers, where cultivated conversation, discussions, intrigues, flirtations, and artificial manners were the norm.

Glass windows and mirrors decorated the rooms and parlors of the baroque times. Behind generous window galleries, people sought refuge from the dangerous miasmas and the disease-carrying *mala aria* (bad air) outside. Glass cottages boomed at that time. Entire beech forests were turned into ashes in order to get the potash needed for making glass. From these windows the eye could behold gardens forced into strict geometric patterns. These parks and gardens mirrored the mechanistic, intellectual spirit of the time: rigidly straight gravel paths, straight canals interrupted occasionally by basins and fountains, trees and bushes cut into green pillars and hedges in the form of square walls. It is a nature subdued under the will of human civilization, a nature ruled by the drawing board. An army of gardeners was constantly occupied with checking the natural laws of growth, humbling the plants and shrubs (Scharff 1984:77). The prototype for these pompous and ridged geometric gardens was the park of Versailles of Louis XIV. This “sun king” also presumably suffered from syphilis, a fact that was kept secret (Bäumler 1997:83). In the summertime, when the frivolous society took rides in their coaches, they had to endure gruesome heat. Makeup melted and ran, face powder became sticky, body crevices sweaty. Sun parasols and the fashionable Chinese fans brought little relief. The master gardener, however, had a brilliant idea. He knew that of all trees, the horse chestnut or buckeye, a native of Asia Minor and the southern Balkans, provided the coolest shade. Therefore, horse chestnut trees were planted as alleys along the roadways of Versailles and, of course, trimmed into proper geometric shape. Soon aristocrats all over Europe had chestnut alleys planted on their estates, and the bourgeoisie followed with buckeye alleys in their cities. Finally the simple folk discovered the shady tree for themselves. The horse chestnut replaced the linden tree as the most popular cool place for dancing and drinking, shading the popular “beer gardens” in central Europe, so that on blistering hot summer days the beer in the mug managed to stay fairly cool. Cool, refreshing beer, thanks to the spirochetes!

What the upper class does is quickly imitated by the bourgeoisie. Like the lords and ladies, soon every citizen was wearing wigs and high-collared jackets, avoiding the sun, preferring to spend time inside, speaking softly, eating with prescribed manners, and, if the pocket-book allowed, visiting the modern doctors and taking their mercury-based medicines. In contrast to the simple country folk, who could not afford doctors and stuck to old-fashioned (herbal) remedies, the bourgeoisie suffered from the iatrogenic afflictions common among the ruling class. In the rural countryside, grandmothers still gathered herbs for ailing family members, usually with a prayer or appropriate saying—a practice that was considered primitive and outdated. The aristocracy and bourgeoisie tended to look down with disdain upon the country people, with their red cheeks, hearty appetites, and healthy bowel movements.

Bowel movements! That was the essential point in this difficult time because the mercury salves caused irreparable intestinal damage. In addition, the use of opium as a painkiller paralyzes the peristaltic activity—a fact that many a traveler in the tropics suffering from dysentery has thankfully recognized. It is well known that opium

consumers, junkies, and morphine addicts are constantly constipated. Intestinal purgatives were one of the most important ingredients in the doctor's arsenal at the time. Simple indigenous herbal plant medicines were not sought. Drastic medicines, such as mineral antimony, and expensive drugs such as Chinese rhubarb or American scammony, were imported in order to get the sluggish intestines to move again.

Return of the Herbs

It wasn't until toward the end of the eighteenth century, the romantic *sturm und drang* period, that the situation slowly relaxed. The treponema spirochete had progressively lost its virulence, but the fashion of the wigs and lace was still *en vogue*. Young artists and scholars began to rebel against the unnatural lifestyle and "rational" chemical medicine, even declaring that it made people sick. Johann Wolfgang von Goethe, for example, discarded wearing a powdered wig, silk stockings, and lace, and moved to the countryside, a fact that upset his cultivated mother. In a letter she admonished him to "do as is proper for Christians and live within city walls" (Balzer 1976:45). In the company of his girlfriend he lived in a garden house, wrote poetry, did botanical studies, took long walks in nature, paying tribute to the *genius loci*. He loved nature, saw it as a goddess who does not reveal her secrets when forced, not even if put on a rack and maltreated by mechanisms. In his *Faust* he rebuked the cold-hearted experimental science of Francis Bacon:

*Remaining mysterious even in the light of day,
No one can rob Nature of her veil;
And whatever secrets she may want to reveal,
You can't take it by force, can't pry her with levers and screws.*

In this romantic age, country folk were seen as living in tune with nature by breastfeeding their children and curing their ailments with healing plants. Jean Jacques Rousseau idealized the "noble savage" and contrasted him to the decadent, civilized human, plagued by syphilis and given to artificiality and debauchery. English romantic poets wrote beautiful works about idyllic country life.

Christoph Wilhelm Hufeland (1762–1836), a physician in contact with Goethe, Schiller, and the romantic philosophers, brought the new attitude into the healing arts. He rejected mercury salves, poisonous mineral medicines, bloodletting, and the abrasive blistering plasters of the time. His healing approach, which he called "macrobiotics," has similarity with that of Hahnemann. He insisted that the main aspect of healing should be the effort to support the natural, inherent "life's vital energy." Chemicals cannot accomplish this; on the contrary, they bring about a decrease of this vital energy. Sunshine, fresh air, fresh clear water, and warmth are the elements necessary to help maintain health. In addition, a balanced rhythm of waking and sleeping, rest and activity in harmony with the rhythms of nature, are important. One should get enough

sleep, because sleep itself is healing and restores expended vital energy. For a long and happy life, he suggested rising with the sun, eating simple food with little meat, chewing food well and thoroughly, exercising in fresh air, keeping the muscles well toned, drinking herbal teas and using them as enemas, wearing comfortable clothes that are easy on the skin, not smoking, living quietly and peacefully, and staying cheerful and content. Music, art, and poetry, he reminded us, are nourishment for the mind and soul; by contrast, unnecessary luxury wastes the life energy.

Hufeland taught mothers that babies should drink the milk from the mother's breast, not from the bottle. Children should not be pampered too much. They should play and exercise outside in the fresh air and not in stuffy closed rooms. They should do so even if the weather is bad. Furthermore, they should not be forced by schools into abstract intellectual activity too soon. They need time to dream, to develop their souls. Too much mental strain reduces the life energy instead of increasing it. Children should go to bed early—the best hours of sleep for them being before midnight. Mattresses should be made of horsehair, moss, or straw. It is invigorating to take a cold shower or quick cold bath, and then rub oneself down well with a towel. Young people should avoid beverages and foods that pep up or excite the nerves—tea, coffee, chocolate, wine, or sweet pastries. Fresh water is the healthiest beverage. Work and activity are better for the young than idleness; for adults, it is best to live in a state of marriage. “Artificial or exaggerated sexual stimulation” leads to squandering of the life energy. And the medicaments that one takes should never be such that they diminish life's vital energy.

Hufeland's main work, *Macrobiotic, or the Art of Extending Human Life*, a bestseller when it was published in 1796 and translated into many languages, including Chinese, marks the end of the iatrogenic catastrophe afflicting Europe. The Chinese and Japanese were especially receptive to Hufeland's teachings. This is not surprising, as his life energy concept is very close to the concept of *chi'i* energy or kidney *jing*. Nowadays in our hedonistic society his ideas sound somewhat strict and restrictive. But in his day, they were revolutionary. Even now, they make good sense.



Forebodings about the Spirochete

It was a spirochete, a miniscule corkscrew-shaped worm called treponema that catapulted the Western world very rudely into a new age and, as has been described above, dramatically changed the course of culture. Syphilis ripped people out of their dream and pointed the way into the rational, empirical scientific perspective.

The epidemic that befell the people in the fifteenth century like a divine scourge and literally rotted the flesh off their bodies, killing them quickly, lost its virulence in the course of time. The immune response adjusted to the disease and by the end of the nineteenth century it was no longer as devastating; it became little more than a peccadillo, an annoyance to be treated with “blood purifiers.” Nonetheless, it was still a disease that had many masks, similar to Lyme disease today, leading in its last phase to paralysis, insanity, degeneration, and debility. But before it got that far, the spirochetes actually seemed to stimulate the cerebral functions, heightening creativity and achievement potential. Aldous Huxley theorized that mind-altering substances (psychedelic drugs) impair the filtering function of the brain, which filters out all the sensory input not necessary for direct survival. Perhaps the bacterial toxins, the endotoxins of the spirochetes, have a similar effect. Without the “reduction valve” of a healthy nervous system, the mind gets flooded with information that it must digest or at least process artistically. The spirochetes seem to cause creative energy to blaze up and empower the artist before he burns out like a fire. Similar to drugs, the spirochetes open the doors to perception; they open the doors to dimensions beyond the daily norms. Many artists, poets, musicians, and mystics of the nineteenth and early twentieth centuries were syphilitic. Genius and madness are often not far apart.

Friedrich Nietzsche wrote works like *Zarathustra*, *Beyond Good and Evil*, *Antichrist*, and *Ecce Homo*, while suffering from neuro-syphilis and before he completely lost his mind. The biologist Karl Möbius even thought that Nietzsche wouldn’t have been able to write some of his works without the spirochetes and their toxins (Bäumler 1997:243). Heinrich Heine, Arthur Schopenhauer, Nicolaus Lenau, E.T.A. Hoffmann, Christian Grabbe, Friedrich Schiller, Franz Schubert, Ludwig van Beethoven (syphilis is believed to be the reason for his deafness), Hugo Wolf, Frederic Smetana, Guy de Maupassant, Charles Baudelaire, the artist Alfred Rethel (*Dance of the Dead*), Edouard Manet, Emile Zola, Gustave Flaubert, and many others were also syphilitic.

In the year 1905, researchers Fritz Schaudinn and Erich Hoffmann placed the liquid tissue from a syphilitic ulcer under a microscope. A very fine, tiny, screw-like “snake,” smaller than a speck of dust, hovered in strange turning movements before their eyes. They gave the being the name *Spirochaeta pallida*, “pale screw-like hair.” One year later, August Paul von Wassermann developed a serological diagnosis—the Wasserman reaction, still used today—with which the infection can be detected. The bacteriologist Paul Ehrlich was looking for what he called a magic bullet, or silver bullet, that would

hit the bacteria without fail and destroy it. In the year 1910 he was able to market an arsenic compound called salversan. Even though this drug caused severe side effects, syphilis was basically banned by its use. The disease had become, as Dr. Venzmer wrote, “a dying disease.” He even gave his book this title (Venzmer 1929). With penicillin the disease seemed to be banned forever.

But living beings do not let themselves be banned out of existence so easily. The archetypes remain, even if the material expression vanishes. One can eliminate them from physical being for a time, but one cannot exterminate them forever. One of the wisest of our philosophers expressed it in this way:

*No being can disintegrate into absolutely nothing!
The eternal is always present in everything.*

—JOHANN WOLFGANG VON GOETHE (1829)

At the beginning of the twenty-first century, infectious diseases, including syphilis, are returning. The World Health Organization reports twelve million new infections with syphilis per year. And now, recently discovered, there is this new kind of spirochete, *Borrelia burgdorferi*. Will borrelia bring about cultural change? What kind of dreams and intuitions will come to us with borrelia? What effect will it have on our lives, on our civilization? Will it bring about a paradigm shift like its sister, the treponema? What kind of inspirations, dreams, or nightmares will it provide to us? It was mainly the fear of the syphilis spirochete that instigated the search for medical miracles promising a disease-free life and bringing us antibiotics. Again, another spirochete-based plague, Lyme disease, is telling us that the age of antibiotics is coming to an end. It challenges us to search deeper. Perhaps we will find the answer at the origin of the journey; perhaps it is time to return to our old allies, the healing plants.

APPENDIX: HEALING PLANTS

Lymph and Spleen Plants

The following is a small selection of plants that affect the lymph system.

***Mistletoe* (*Viscum album*)**

It is not a single active ingredient in the mistletoe but a combination of active ingredients that is responsible for the effectiveness of the plant. Tea or tincture made of the leaves strengthens the capillary vessels, regulates the blood pressure, alleviates arterial sclerosis, overcomes infertility, improves the lymph functions, and supports the immune system. Administered parenterally, that is, as an injection circumventing the digestive system, mistletoe extract inhibits tumors. Mistletoe even stimulates regrowth in a shrunken, ailing thymus. Dosage: daily 2–3 cups of tea or three drops of tincture.

***Common Figwort* (*Schrophularia nodosa*)**

The signature of this plant is obvious: nodose roots and hard, knotty blossoms. It is used wherever there are knots in the body, such as swollen glands (lymph nodes) and swollen tonsils, as well as scrofula (“king’s evil”), chronic lymph infections with chronic sniffles, eczemas, milk crust (atopic infantile eczema), and inflamed eyes, such as red-eye.

Dosage: 1–2 cups a day (1 teaspoon of the plant per cup), sipped slowly over an entire day. As the saponine content can aggravate the kidneys, it is better to take the figwort in low homeopathic potency (D3) or as a spagyric compound.

Salve for external use: Gather the roots in May. The salve can be used for swollen lymph glands and skin eczema. According to a recipe going back to Dioscorides (first century AD), one can chop up the whole plant, soak it in vinegar, and apply it to swollen lymph glands.

***Lady’s Bedstraw* (*Galim verum*) and *Cleavers* (*G. aparine*)**

Both kinds of bedstraw, members of the madder family, have a diuretic, “blood cleansing,” and detoxifying effect. They stimulate lymph circulation. Especially cleavers, also called goose-grass, are used in the treatment of skin diseases, such as psoriasis and eczema. John Wesley, the Methodist evangelist, used them to cure his poor parishioners of nodular goiter, using the tea internally and poultices externally.

***Golden Saxifrage* (*Chrysosplenium alternifolium*)**

Used as dried tea or the fresh plant in spring, it alleviates spleen ailments, ailments of the urinary tract, and liver ailments. In addition, the plant stimulates bile secretion for so-called constipation of the liver.

Rowanberry (Sorbus aucuparia)

Juice, vinegar, and especially tea made of the dried berries are good for bad lymph circulation. Tincture made from the berries is used for swollen lymph nodes or lymph edema.

Strengthening the Immune System

Purple Coneflower (Echinaceae purpurea, E. pallida, E. angustifolia)

This pretty wildflower from the Rocky Mountains, which is cultivated in Europe as a garden flower, is named after the hedgehog (Greek *echinos*) because the convex spiny floral disc in the center of the blossom reminds one of the little insectivore. In that way the plant is somewhat similar to teasel. The roots and leaves of the plant are used, chewed or made into tincture, decoction, powder, or pressed for fresh juice. The purple coneflower works as a disinfectant (hinders bacteria), is anti-inflammatory, strengthens the immune system, and helps with viral infections. It is also considered to be a lymphatic.

This member of the composite family works by increasing phagocytosis and the number of helper T cells. The plant serves as an interval therapy (between other therapies and followed only for a short period of time) for chronically recurring respiratory infections, urinary infections, and wounds that heal with difficulty (Fintelmann and Weiss 2002:232). The cure should be taken for a short amount of time, at the most three weeks. If taken too long, its effect is reversed.

Mistletoe (Viscum album)

Among the lymph and spleen plants, mistletoe stimulates the thymus, thereby helping to strengthen the immune system. It is taken in the form of tea or drops.

Elderberry Tea and Berries (Sambucus niger)

This tree is attributed to the earth goddess and has always been regarded as “the poor man’s apothecary” in northern Europe. The old poem dedicated to elderberry is still valid:

*Oh, who can count the wonderful things
that come from this tree?
Bark, berry, leaf and blossom
Each part is full of power and benevolence
Each is a blessing.*

According to recent research, the berries and blossoms have not only diaphoretic and diuretic qualities but also anti-inflammatory and strong immunity-strengthening qualities. Studies have shown that the plant helps patients with a weakened immune systems, cancer, and viral infections (Foster and Johnson 2006:150).

Wormwood (Artemisia absinthum)

The extremely bitter wormwood tea can be drunk in small sips throughout the day to regulate digestion. It also tones the body, increases efficiency, stimulates bile secretion, promotes menstruation, stimulates the central nervous system, and discourages intestinal worms. Recent studies show that it also has a modulating effect on the immune system, but since the plant contains a considerable amount of thujone, a nerve poison, the correct dosage is very important.

Vervaine (Verbena officinalis)

This ancient, sacred plant of the Celtic Druids is not to be confused with lemon verbena (*Lippis triphylla*), which is sold in health food stores as a refreshing tea.

The bitter tea of this old healing plant is diuretic and galactagogue, that is, it stimulates milk production in lactating females. It also stimulates the autonomic nervous system and the digestion. Furthermore, it has a moderating effect on the thyroid gland. Vervaine tea helps with such symptoms as exhaustion, weak nerves, migraines, and anemia, and smooths convalescence (Holzner 1985:217). There is a growing interest regarding the anti-inflammatory and immunity-stimulating effects of the plant.

Plants for Pestilence and Bubonic Plague

Numerous contagious epidemics or pestilential diseases, including the dreaded bubonic plague, swept the Old World, especially after the fourteenth century, as a result of the global cooling known as the “little ice age.” The immediate disease vectors were rodents, which spread infected fleas, lice, and other parasites. A more basic factor was the sudden cooling of the climate, bringing long icy winters and attendant crop failure and famine. The immunity situation of the population under these circumstances was, to say the least, precarious. In addition, the cool moist summers favored the ergot fungus, which befell the grain fields and caused St. Anthony’s fire, a disease in which the limbs

become black and gangrenous, accompanied by unbearable pain, convulsions, and hallucinations. Up to a third of the population of Europe perished as a result of various pestilences.

In such times of extreme stress the social fabric and the cultural construct of reality becomes fragile. Religious fanaticism tends to become rampant; utopian, revivalistic, and messianic cults appear and people will have visions and hallucinations. What is interesting, in the context of our discussion, is that the herbalists and folk healers of the time also experienced numerous visions. Transcendental beings, angels, leprechauns, talking animals, water sprites, elves, and other supernaturals appeared and gave them helpful clues about healing plants. Exhausted and helpless peasant crones, gathering plants, would hear rhymed verses sung by a bird or murmured by a bog spirit, such as this one:

*Eat juniper berries and Burnet saxifrage, too,
then death will not be able to catch a hold of you.*⁶⁷

For the ethnic Slavs in Saxony, the grim reaper came personally to a peasant farmstead and warned: “Had you eaten scabwort root [elecampagne],⁶⁸ you would not have died, but still be afoot!” The moss-covered skull of a dead person floated above the altar of a chapel and spoke to an old pastor who was in a state of utter exhaustion, praying for help: “Take potentilla and summer savory, this will keep the pestilence from thee.”

Dozens of such sayings were handed down (Schrödter 1997:214). They tell of a “crossing over” into other sublime states of consciousness, similar to what American Indians describe when they go on a vision quest. Trance visions like these usually come about only through privation, fasting, drug intoxication, or asceticism. In the case of these folk herbalists it is the traumatization, agony, and privation caused by the epidemics that led to visionary experiences. It is interesting that the visions obtained do not consist of meaningless subjective fantasies, but they often provide deep insights into plants that might really help. They are true visions, or “true hallucinations,” as the ethnobotanist Terence McKenna called them (McKenna 1989). The plants brought to consciousness by the supernatural beings contain a large assortment of vitamins, phytohormones, and other substances that have been recognized as immunity-strengthening.

Following are the plants most often mentioned in visionary experience to counter the so-called pestilence. Those shown with an asterisk are especially strengthening for the immune system and, while searching for plants that help with Lyme disease, are worth special attention.

Common Tormetil (Potentilla erecta)

This plant contains tannic acid, a tonic astringent, that was traditionally used to heal

wounds and stop external and internal bleeding. Next to bacteria and virus inhibitory characteristics, the dried roots were found to have anti-allergic properties, lower blood pressure, and stimulate the immune system (Schönfelder 2004:360).

***Valerian* (*Valeriana officinalis*)**

Hufeland praised valerian as one of the best cures for the nerves and for strengthening and regulating the whole nervous system. It is interesting to see that the root was included in the theriaca (a heal-all medium containing many herbs, minerals, and animal parts) of the Middle Ages, as it was claimed to help neutralize the poisons of pestilence in general and of bubonic plague in particular (Willfort 1997:60).

***Juniper* (*Juniperus communis*)**

Both in the New World and in the Old World juniper branches were traditionally used to smudge away demons that caused sickness. The berries are diuretic and “cleanse the kidneys and the liver,” according to the humoral pathologists. Recent studies show juniper berries to be antioxidant, antiviral, and anti-inflammatory (Foster and Johnson 2006:221).



Juniper

***Stemless Carline Thistle* (*Carlina acaulis*)**

According to legend, Charlemagne was praying when the plague was raging. An angel appeared to him and told him he should shoot an arrow into the air and the plant the arrow hit would be the right healing plant. The arrow hit a thistle, which was then named after him, the “carline thistle.” The plant is now a threatened one and is under conservation protection, but like all thistles, it stimulates liver bile and has an antibiotic tannic acid (Carlinaoxide).

Masterwort (Imperatoria ostruthium)*

The masterwort plant is an umbellifer, which grows only above an altitude of 3,000 feet. For alpine mountain dwellers it is a heal-all, the master of all worts. To this day they prefer to take this medicine in the form of a hard liquor (masterwort schnapps), steeping the aromatic roots in high-percentage alcohol. A better way is to make a tea of the roots. Masterwort is sudorific, diuretic, and calms the lungs and the digestive system, similar to angelica or the American osha (*Ligusticum porteri*), both of which are closely related. It is antibacterial and antiviral. Recent tests have shown anti-inflammatory and fever-lowering effects (Schönfelder 2004:255).

Mountain Arnica (Arnica montana)

The yellow-blossoming flower is under strict conservation protection. It has antimicrobial, antifungal, anti-inflammatory, pain-killing, anti-arthritic, and blood-thinning qualities. Used internally, however, it is slightly poisonous, hence its old English name, wolf’s bane. A tea of the blossoms once saved Goethe when he almost died of heart muscle failure. These days it is used externally in the form of compresses for bruises, contusions, rheumatic joints, and hematoma.

Burnet Saxifrage (Pimpenella saxifraga)*

“Bibernell und Stänz ist gut für Pestilänz,”⁶⁹ sang a little bird for an herbal healing woman in rural Switzerland. And Rübezahl, the guardian spirit of the Sudeten mountains, told the land dwellers, “Cook Burnet saxifrage and valerian, then the pestilence will have an end!” The taproot, which has a sharp peppery taste, is used today for catarrh in the upper air passages, infections of the urinary tract, and as a bath ingredient for wounds that won’t heal properly (Hiller and Melzig 2003:170). It was once regarded as one of the most important remedies for contagious diseases. Swiss herb pastor Johann Künzle used the anti-inflammatory root powder as a preventive when the flu or some other infectious disease went around. He said, “Burnet saxifrage is as violent as a Russian when it comes to driving out stubborn, festering, and purulent discharges from the throat, the lungs, stomach and the intestines” (Künzle 1977:31).

Ramson's or Bear's Garlic (Allium ursinum)*

Bear's garlic can do everything that regular garlic can do. It is antibacterial, antifungal, antiviral, lowers cholesterol, regenerates the intestinal flora, flushes out worms, is blood-cleansing, strengthens the immune system, and, according to old Slavic lore, it also keeps vampires at a safe distance! A friend of the simple folk, the Swiss herb pastor Künzle came to the point: "People who were full of rashes and eczema all over the body, were pale, and even if they already were lying in the ditch and the hens scratched them out again, they would become fresh and healthy again after using this wonderful gift of God for a certain amount of time." In the spring a cure with the fresh plant helps flush out heavy metals.

European Sanicle (Sanicula europaea)*

In the olden days, in the folk medicine of the alpine countries this delicate and fragrant umbellifer was regarded as a heal-all. The name sanicle even comes from the Latin sanare, to heal. The plant is used today mainly to heal wounds and inflammations of mucous surfaces, to stop bleeding in the intestinal tract, and as an expectorant. The North American black snake root or Maryland sanicle (*S. marilandica*) has similar properties. The Indians used it to cure snake bite, syphilis, and diseases of the lungs (Coffey 1993:164).

Angelica (Angelica archangelica, A. sylvestris)*

Angelica was seen as as an angel in plant form. Christians claimed it was the archangel Raphael himself, who revealed the plant to the doctors during the time of the great plague. Since ancient times the immunity-strengthening properties of the plant have been known. The Romans imported it from northern Scandinavia and it found its way even to the bazaars of the Orient. Medieval doctors would chew on pieces of root when they tended to patients suffering from highly contagious diseases. European apothecaries sold Angelica vinegar, with these protective properties. Angelica is diuretic, sudorific, anti-inflammatory, expectorant, and, due to its natural bitters, it stimulates the liver. It works mainly on the digestive system, but also tones the pancreas and the lungs. Its colloquial name, "poison root," indicates that it detoxifies and helps flush out poisons. The old herbals of master herbalists from the sixteenth century praised this ability to drive out poison.

Rue or Herb of Grace (Ruta graveolens)

This traditional cloister plant must be handled with care. People with sensitive skin could possibly get a rash from skin contact with it. Rue contains oil that can cause liver

and kidney damage and was used in earlier times to promote menstrual flow and as an abortive. Nonetheless, it has healing power when used correctly to treat nervous disorders, rheumatic ailments, bone injuries, tendon sheath inflammation, poor blood circulation, and for antispasmodic, diuretic, and anti-inflammatory treatment.

Elecampane or Scabwort (Inula helenium)*

The roots of this plant, named after beautiful Helena, are a vermifuge; they have a number of beneficial applications: antifungal, tumor inhibitive, anti-inflammatory, antibiotic, diuretic, and they stimulate the glands and bile. Experiments have shown that elecampane strengthens the immune system and supports the intestinal flora (Foster and Johnson 2006:141).



Elecampane

Garlic (Allium sativum)*

Garlic has the same properties as Ramson's or bear's garlic, described above.

Plants to Support Sweating and Flushing

Grandmothers used to be the carriers of the old healing traditions. When someone in the family or community was sick with a fever, the grandmother would make teas of sweat-inducing herbs (sudorifics or diaphoretics) in order to drive out the the sickness via sweating. The following plants were and are the most important.

Elderberry (Sambucus niger)

Elderberry blossoms are probably the strongest diaphoretic. The tea also strengthens the immune system and, since it is antiviral, is effective with colds, flu, and even measles and chicken pox. One can combine drinking the tea with a hot bath to support sweating.

Linden or Lime Tree Blossoms (Tilia platyphylles)

The blossoms are prepared as a tea. They warm the body and increase sweating. Linden trees flower at midsummer and fill the air with their honey-like fragrance. When it is cold, wet and nasty, it is as though the sweet smell of the tea reminds our bodies and souls of the balmy, warm summer days. Lime flowers have antispasmodic, diaphoretic, diuretic, sedative, and immunity-enhancing effects.

Wild Bergamot, Bergamot Mint, Beebalm, or Oswega (Monarda didyma, M. fistulosa)

This was an important healing plant for the American Indians. Used as a tea, it warms, is sudorific and diuretic, and inhibits fungi, worms, and bacteria.

Butterbur or Bog Rhubarb (Petasites hybridus)

In the Middle Ages people were convinced that this sweat-causing plant could flush the pestilential poisons out of the body. The tea made of the powdered root is sudorific, anti-inflammatory, and relaxes cramped muscles in the stomach and intestinal (also gallbladder) area and also in the respiratory system. The root is used today also as a heart tonic.

Lymph-Cleansing Plants (Lymphatics)

Lymphatics are plants that influence the lymph system, stimulating the circulation of lymph fluid, decreasing the swelling of lymph nodes, or flushing toxins and debris from the lymph. Here are some of my favorites.

Besides the lymphatic plants summarized below, there are plenty of other herbs

considered to be detoxifying and lymph-cleansing. These include: tansy (*Tanacetum parthenium*), marigold (*Calendula officinalis*), wild pansies (*Viola tricolor*), walnut leaves (*Juglans regia*), hemp agrimony (*Eupatorium cannabinum*), hyssop (*Hyssopus officinalis*), yellow sweet clover (*Melilotus altissima*), red clover flowers (*Trifolium pratense*), and goldenrod (*Solidago* spp.). All of these are good lymphatics, however, it would take us too far beyond the scope of the book to go into further details regarding their application. The interested reader should pursue his or her own research.

Ground Ivy (Glechoma hederaceae)

Painters and people working with lead used to drink this tea as a preventive against heavy metal poisoning. Mattioli, herbalist in the sixteenth century, prescribed ground ivy, extracted in wine and drunk in order to “open liver and spleen” and to eliminate poison through sweating. Ground ivy cleanses the lymph, eliminating bacteria and bacterial waste, regulates the metabolism, and curbs infections that are festering. The plant is also good when used in baths. Painters and craftsmen working with lead drank ground ivy tea daily in order to flush lead residues out of the body.

Stinging Nettle (Urtica dioica)

Nettle is diuretic and anti-inflammatory, and thus a good cure for flushing the urinary tract and for cleansing lymph and blood; it is also stimulating for the immune system due to the sterol (phytosterol) and lectin content. The fresh juice of the young shoots in the spring is especially good for cleansing the blood.

Angelica (Angelica spp.)

See above, in Plants for Pestilence and Bubonic Plague.

Rowanberry (Sorbus aucuparia)

Dried ripe rowanberries, prepared as an infusion (tea) or made into cider or vinegar, are an effective lymphatic.

Hart's Tongue (Liatris odoratissima)

Hart's tongue elixir is a twelfth-century recipe from Hildegard von Bingen. The contemporary herbalist Peter Germann dug it out of the archives and writes that the elixir contains a few pinches of deer's tongue fern, mixed with honey, some long pepper, and cinnamon bark, all simmered in wine for a few minutes. Unfortunately,

Hildegard tells us nothing about the amount or dosage, only that it cleans the body of foul humors.

Burdock (Arcticum lappa)

Especially the root, but also the seeds of the burdock, stimulate the metabolism of the liver, the gallbladder, spleen, and kidneys. They are sudorific, antifungal, blood-cleansing, antiviral, expectoral, and help excrete poisons through the skin and urine.

Milk Thistle or Lady's Thistle (Silybum marianum)

This thistle works mainly as a bitter tonic that promotes the flow of bile. It is a protector of liver functions and an antioxidant. It is also a detoxifier and thus helps clean the lymph. For further details, see [Chapter Six](#), in the section Neurotoxins and Lipid Bacterial Debris.

Syphilis Cures of the Native Americans

North American Indians used a number of wild plants for treating venereal diseases, especially syphilis. Contrary to Caribbean natives, it seems that the treponema infection was not endemic among North American Indians. They came into contact with the disease during the time of settlement of the continent by Europeans. Nonetheless, they quickly developed plant remedies to deal with the disease. These plants can be interesting for us. First, they can potentially be used in the treatment of Lyme disease and, second, they grow wild in the North American natural environment.

Lobelia (Lobelia spp.)

The great blue lobelia or blue cardinal flower (*Lobelia siphilitica*) is among the most important syphilis-curing plants of the Native Americans. Great blue lobelia was used by the tribes of the Eastern woodlands specifically for this venereal disease. The French trappers and rangers also let themselves be healed by the natives with this plant. The Swedish botanist Kalm reported in 1749 that the natives healed victims of venereal disease completely with this plant within five to six months (Erichsen-Brown 1979:243). C. F. Rafinesque, who wrote about medicinal plants of North America in 1830, reported that the root of lobelia is strongly diuretic, diaphoretic, emetic, and cleansing (Erichsen-Brown 1979:243).

The roots were boiled together with May apple (*Podophyllum peltatum*) and chokecherry (*Prunus virginiana*) into a strong brew to drink as a tea. It was used externally to dab the abscesses, after which powdered New Jersey tea (*Ceanothus americanus*) was strewn onto them.

Other kinds of lobelia that were also used for syphilis are cardinal flower (*Lobelia cardinalis*), also a strong cure for worms, and Indian tobacco or puke weed (*Lobelia inflata*), not to be confused with common tobacco. The Indians called it tobacco, not because it was smoked, but because it was a powerful, sacred medicine plant, like tobacco. Puke weed is associated with the great itinerant herb doctor Samuel Thomson of the early nineteenth century. This American folk healer used the herb as a purgative and to promote perspiration to initiate his cures consisting of hyperthermia (by means of sweatbaths) and a variety of specific simples.

Sassafras (Sassafras officinalis)

The red, fragrant wood and bark of this tree belonging to the family of the *Lauraceae* was already incorporated into the London pharmacology in 1618 as a syphilis remedy. Next to tobacco, sassafras was the main export article from the British colony of Virginia and competed with guaiacum wood, exported from the Spanish colonies. Among the settlers from Europe, decoctions of sassafras were used as a blood cleanser. The Pennsylvania Dutch called it “fever tree” because of its diaphoretic effect. For syphilis, sassafras was often boiled with sarsaparilla root (*Smilax*), guaiacum wood, and the highly poisonous paradise plant or mezeron (*Daphne mezereum*). Sassafras root was the main ingredient in root beer, which was first sold as a health tonic and later available everywhere as a soft drink.

Butterfly Weed (Asclepias tuberosa)

This asclepiadaceae, also called red milkweed or pleurisy root, is diaphoretic, emetic, and purgative. It cleanses, so to say, all the way through. Native Americans in the southeast United States used it for syphilis (Vogel 1982:287).

Purple Boneset, or Sweet Scented Joe Pye Weed (Eupatorium purpureum)

This plant, also known as Joe Pye weed, is related to the European hemp agimony (*E. cannabinum*) and the common American boneset (*E. perfoliatum*). Joe Pye was a Native American healer who was able to curtail a typhus epidemic plaguing the white settlers in New England. His main healing plant was this strongly diaphoretic, diuretic, and astringent root. Dr. Johann David Schöpfung, who came to America with Hessian soldiers during the war of independence and wrote the first ethnobotanical text *Materia Medica Americana* (1787), also listed the plant as an anti-syphilitic. According to ethnobotanist Daniel Moerman, all the Eupatorias were used a venereal aids and poultices for syphilitic chancres. (Moerman 1999:229).

Staghorn Sumac (Rhus typhina) and Smooth Sumac (Rus glabra)

These two kinds of sumac are very similar. They are beautiful especially in the fall when the leaves turn a bright orange red. The dry, red fruit cobs of the staghorn sumac can be soaked in water for a few hours; the water then turns reddish and tastes like lemon water. This “pink lemonade” was a main source of vitamin C for Native Americans during the winter. The bark and roots, which are very astringent because of a high tannin content, were used to heal and dry out abscesses, for curing diarrhea and hemorrhoids, and healing wounds. The Ojibway used a combination of sumac bark and lobelia for syphilis (Vogel 1982:377). The Delaware used the staghorn sumac combined with purple coneflower roots for venereal disease (Moerman 1999:472).

Yerba Santa (Eriodictyon californicum)

The wonderful aroma of the “holy herb,” which grows from Oregon to northern Mexico, leaves no doubt that it is a healing plant. Wherever this plant from the *Hydrophyllaceae* family grows, it was chewed, smoked, or made into tea for rheumatism, bronchitis, digestive ailments, syphilis, and other ailments. The white settlers also brewed a blood-cleansing tea that was believed to be of help for syphilis (Vogel 1982:399).

Queen’s Delight (Stillingia sylvatica)

Native Americans of the southern states used the root of this plant, from the plant family *Euphorbiaceae*, as a cleanser for venereal diseases. The white settlers also used queen’s root to cleanse the blood. It is an anti-syphilitic.

Common Prickly Ash (Zanthoxylum americanum)

The Winnebago made a decoction out of the root of this plant belonging to the family *Rutaceae* and used it as a diaphoretic for healing venereal diseases.

Greenbriar, Catbriar, or Smilax (Smilax officinalis)

Even though the medical greenbriar grows only in a warm climate, it should be mentioned as one of the most important syphilis remedies. The Aztecs called the plant the “syphilis flower” (*nanahua-xochitl*). It was dedicated to the syphilis god who jumped into the sun and burned there, which tells us that heat is one of the most important cures for the spirochete infection. The Aztecs made a strong decoction out of the root, which is rich in steroid saponins. They combined this tea with sweating in a sweat tent. The botanists Monardes and Lonicerus praised smilax for its effectiveness against the “unchaste pox” or “French disease.” They wrote that this plant helps even where

guaiacum has not helped. The “Zittermann decoction” for “blood cleansing” has smilax in it. The Chinese and the East Indians had also discovered the blood-cleansing effect of the variety of smilax that grows there (*Sarsaparilla glabra*). They use it for syphilis and mercury poisoning.

Various other kinds of greenbrier grow in the North American forests. All of them were used by the the native Indians as dermatological, gynecological, and gastrointestinal aids. The Cree used the roots of catbrier (*Smilax spp.*) together with false indigo (*Baptisia spp.*) as decoctions for syphilis (Moerman 1999:534).

TEASEL ROOT RESOURCES

United States

Delta Gardens Flower Essences

www.deltagardens.com

603-601-6929

Lady Barbara's Garden

www.ladybarbara.net

E-mail: ladyb@ladybarbara.net

Misty Meadows Herbal Center

www.mistymeadows.org

603-659-7211

Phytotherapy Research Laboratories (PRL)

www.prlherbals.com

1-800-27-HERBS (43727)

Walker Farms

www.walkerherbs.com

715-285-5605

Europe

Heinz Machura

www.gesund-net.de/heinz.htm

English language home page: www.karde-teasel.com

NOTES

Introduction: A Fall from a High Horse

“Two Controlled Trials in Antibiotic Treatment in Patients with Persistent Symptoms and a History of Lyme Disease,” *New England Journal of Medicine*, 345(2):85–92, July 12, 2001.

New, soft, multi-celled tissue that builds during healing.

Chapter 1: Encountering the Demon

A superinfection is an infection occurring during antimicrobial therapy that is caused by an overgrowth of drug-resistant microorganisms.

Gram-negative and *gram-positive* are terms for classification of bacteria according to the method of diagnostic gram coloring (from Hans Gram, 1853–1938); gram-negative bacteria are red, gram-positive are deep blue.

Manichaeism, named after the religious founder Mani (216–277 AD), advanced the view of radical dualism between good and evil, light and dark. One of the early church fathers, St. Augustine, started his career as a Manicheist. His thinking influenced not only Christianity but also Islam and various other philosophic streams (Storl 2004a:191).

B lymphocytes (bursa-dependent L) build highly specified antibodies (immunoglobulin) against unknown intruders (bacteria, spores, viruses) and store the information in memory cells. T lymphocytes (thymus-dependent L) destroy—as killer lymphocytes—cells alien to the body; after successful defense, so-called repressor cells inhibit further immune system reactions, while memory cells store the characteristics of the invaders.

Jean-Baptiste Lamarck (1744–1829), a French naturalist, theorized that habit, use, and disuse of organs in their response to the environment become part of the genetic inheritance and are thus passed on to future generations. This evolutionary thesis, considered to be outdated, was replaced by Darwin’s theory of natural selection.

This morphogenetic field is a matrix that transcends time and space. It includes the collective experience (and wisdom) of the species (or, on another level, a society). Information is not necessarily encoded in the genes (DNA), but the genes receive instructions from this field and then translate these into physical expression.

Vancomycin, a bactericide that penetrates the cell wall of gram-positive bacteria, was long considered to be the last hope in life-endangering infectious diseases.

Chapter Two: An Arthropod Terrifies the World

10. High-risk areas are officially defined as those regions where, between 1985 and 2005 and within a single year, at least two people were infected with ESME, or where within a time span of five years at least five people were infected.
11. Weintraub, Pamela, "The Bitter Feud over LYMERix," *HMS Beagle: The BioMedNet Magazine*, 106(6), 2001, <http://www.whale.to/m/lymerix8.html>.
12. www.impfschaden.info.
13. www.impfkritik.de.
14. Nosodes (Greek *nosos* = disease) are highly diluted homeopathically prepared medicines made from diseased or pathological material, such as blood, pus, germs, cancer cells, or, in this case, infested ticks.
15. Novartis Foundation, Project No. 99A18.
16. Titer: The concentration of antibodies as determined by titration.
17. Pinta, an endemic skin disease of the American tropics, is caused by spirochetes (*Treponema pallidum carateum*). The symptoms include scaly lesions and depigmentation of the skin. It is serologically indistinguishable from syphilis.
18. Framboise, yaws, or buha, a contagious, tropical infection caused by spirochetes, takes a similar course as syphilis, but is not passed on through sexual intercourse. It is serologically indistinguishable from syphilis.
19. http://en.wikipedia.org/wiki/Lyme_disease (04.12.2006; p. 5).
20. www.angelfire.com/me2/StarShar/Spiros.html.
21. Endothelial tissue is the cell layer or coating of blood vessels, lymph channels, the heart, the ribs, and the abdominal membrane.

Chapter Three: The New Epidemic

22. Two Web sites are worth checking: www.reimerhbo.com/lyme_dis.htm and www.canlyme.com/flawedtest.html.
23. Bakken L. L., S. M. Callister, P. J. Wand, and R. F. Schell, "Interlaboratory Comparison of Test Results of the Detection of Lyme Disease by 516 Participants in the Wisconsin State Lab of Hygiene/College of American Pathologists Proficiency Testing Program," *Journal of Clinical Microbiology*, 35(3):537–543, 1997.
24. In the titrimetry, the determination of the amount of antigens or antibodies that can be proven to show a positive reaction.
25. "Lyme-Borreliose: Merkblatt für Ärzte," Hrsg. BgVV und RKI, Köln, 1996.
26. Bionia, World War 4 Report, February 2007, www.ww4report.com.
27. www.initiative.cc/Artikel/2004_08_23%Polio%20und%Pestizide.htm.

Chapter Four: Fear of Nature

- 28. Genesis, “The Return of the Giant Hogweed,” from the album *Nursery Cryme*, 1971.
- 29. Referred to as Lyme Literate Medical Doctors (LLMD), or Lyme Wise Medical Doctors (LWMD).

Chapter Five: Natural Treatment

- 30. Christoph Wilhelm Hufeland (1764–1836), a renowned physician of the Romantic Age and founder of macrobiotics, composed a set of rules for longevity (*Lebensregeln*) in verse form, while on his deathbed in 1836. This and the following quotations are taken from Hufeland’s *Makrobiotic – oder die Kunst, das menschliche Leben zu verlängern* (various translations as *Macrobiotics, or the Art of Prolonging Life*).
- 31. Chemtrails are made of mainly aluminium and barium dust that is mixed in with the gas of airplanes. The fine particles that hover in the atmosphere are supposed to reflect the sunlight and help protect the earth from warming. The effect of chemtrails on the environment and health is hardly understood and their application constitutes a messing with delicate natural and ecological processes. Barium is highly poisonous and, as we know, aluminum seems to be a main factor in causing Alzheimer’s disease.

Chapter Six: Dr. Orth, a Faustian Doctor

- 32. Radiesthesia: the (pseudo-) science of measuring the vibrational fields of objects such as the human body using pendulums, “bio-tensors,” dowsing rods, and similar sensitive instruments.
- 33. The book came out in 1958 and sold half a million copies within a year. It was the only popular book available in the U.S. at that time on the subject of folk medicine. In those days, when belief in medical progress was absolute, folk medicine was derisively referred to as “Indian medicine” and described as outdated, primitive, and superstitious. As a high school pupil thirsting for knowledge, especially about plant lore, I bought a paperback copy, at a price of 50 cents then, as soon as I saw it.
- 34. From Trevor G. Marshall, SarcInfo, Thousand Oaks, California, trevor.m@yarcip.com.
- 35. BLP activate toll-like receptors (TLR2) and bring about the synthesis of inflammatory cytokine Interleukin-1B (Il-1B). See www.autoimmunityresearch.org/lyme-disease.
- 36. Neurotransmitters, such as acetylcholine, adrenaline, dopamine, and serotonin, are substances that relay stimuli among nerve centers.
- 37. The doctrine of signatures is an integral part of traditional herbalism. Basically it

states that the healing plant shares the color, form, odor, or some other characteristic with the organ it is supposed to cure. The organs themselves, as well as the associated herbs, are, in this view, under the rulership of one or another of the seven (visible) planets. Thus, swallowwort (*Chelidonium*), which is effective in dealing with liver ailments, would come under the rule of Jupiter, which also rules the liver.

Chapter Seven: For Every Sickness There Is a Healing Plant

38. *Regimen Sanitatis Salernitanum*, translated into English by Sir John Harington: “The Medical Poem of Salerno,” London 1608.
39. “Contra vim mortis non est medicamen in hortis.”
40. The IUCN (International Union for the Conservation of Nature and Natural Resources) publishes an annually revised “red list” of species of plants and animals that are facing the risk of global extinction. See www.iucn.org/.
41. Personal communication from Matthew Wood, summer 2009: “The Chinese alchemists and physicians recognized three precious substances, akin to the three principles of Western alchemy. These were Jing (Innate Essence), Qi (Energy), and Shen (Mind, Spirit, Character). Jing is stored in the kidneys, Shen in the heart, Qi is controlled by the liver. The Western alchemists called the three Mercury (Innate Essence’s volatile aspect), Sulphur or Sulfur (Energy, or combustible aspect), and Salt (Acquired Character; chemical precipitates or salts). I was referring to jing, the innate essence, which is like the primal water out of which all arises, both yin and yang. It is yin, yet the source of both. It is the primal water, the *Urschleim*, out of which life arose in the beginning of time. The jing or Mercurius provides the innate genetic material for the body construction and the bones and connective tissue, which are the outward reflection of the primal essence in the physical body. Hence, the great disease of the Mercury or jing was syphilis, which erodes the bones, connective tissue, joints, and even the integrity of the mind and personality. So, we needed a remedy for syphilis or the jing and in Chinese medicine *Dipsacus japonica* (spp?) is a remedy for the kidney essence or jing.”
42. *Wortcunner* is an Anglo-Saxon and Old English term for one who knows (*cunnen*) healing herbs (*worts*)—a master of herb lore.
43. Three times three drops a day is hypothetical. Personal experience showed that it wasn’t just the homeopathic information that counted, but also the substantial amount. This can be increased to as much as three tablespoons three times a day.
44. Schule für angewandte Naturheilkunde Zürich (Switzerland).
45. When collecting medicinal herbs, Tall Bull searched out the “chief” of the plant group, offering tobacco and chanting a song to ask the plant spirit to have pity on the poor sick human being. Only when the plant gave its permission would he pick the plant. For a description of the Cheyenne plant gathering ritual, see Storl 2004b.

46. The Anglo-Saxon wortcunners (herbalists) knew the power of such magic songs for calling upon the spirit of the plants. Here, for example, is the cant for the mugwort spirit, as written down in the Nine Herbs Charm (*Lacnunga*) of the eleventh century (Storm 1948:187):

Remember, Mugwort, what you made known,
What you arranged at the great proclamation.
You were called Una, oldest of herbs,
You have Power against poison and against infection,
You have power against the loathsome foe rowing through the land.

47. Anthroposophy: The philosophical teachings of Rudolf Steiner.

Chapter Eight: The Healing Plant, Teasel

48. Pietro Andrea Mattioli (1500–1577) was personal physician to Emperor Maximilian. He achieved fame as the translator into Latin and commentator of *Dioscorides, the Ancient Greek Herbalist*, and as author of various botanical works.

49. See http://alternativehealing.org/xu_duan.htm.

50. “Indigo children” are, according to New Age theoreticians, extremely sensitive youngsters possessing paranormal abilities. More conventionally, they are diagnosed as children with an attention-deficit hyperactivity disorder (ADHD).

Chapter Nine: Supportive Therapy During the Teasel Cure

51. A decoction is a medicine produced by boiling the herb in water over a period of time. An infusion, on the contrary, is a tea made by pouring boiling water over the herb.

52. In the European Alps, offerings of white food, such as milk, eggs, and flour, are put on the windowsills in the winter, when the Wild Hunt of Odin, or of the ancient goddess Percht, and the accompanying host of spirits and ghosts, pass by.

Chapter Ten: Other Natural Cures

53. Antioxidants are easily oxidized particles that protect other particles (free radicals) from oxidation. They are found in unsaturated plant oils and flavonoids (as found in carrots, red beets, and beta-carotene as a forerunner of vitamin A).

54. DMPS (sodium 2,3 dimercaptopropan-1-sulfonate) for flushing out heavy metals, especially mercury due to tooth fillings.

55. Dr. Regehr-Clark’s Web site is www.drclark-verein.de.

56. According to Günther Schust, chairman of the Lyme disease society (Borreliose-

Gesellschaft), January 2007. See www.borreliose-gesellschaft.de.

57. Japanese knotweed contains great amounts of the polyphenol resveratrol, a water-soluble antioxidant that protects the leaves and fruit of the plant from fungi and parasites during moist weather periods and also from any damage caused by too much intense sun exposure.
58. This South African Pedaliaceae is not to be confused with devil's claw (*Phyteuma spicatum*).
59. See the Web site http://de.wikipedia.org/wiki/Japanischer_Staudenknöterich.
60. Co-infections are very rare.
61. See http://groups.google.com/g/group/sci.med.diseases.lyme/tree/browse_frm/month/200 (October 13, 2006).
62. Three Web sites are worth checking: www.natuerlich-quintessence.de; www.sinoplasan.com; www.o-leaf-international.com.

Chapter Eleven: Hahnemann and the Syphilitic Miasma

63. Hahnemann called allopathy the school of medical practice that treats disease with medicine that works in opposition to the symptoms, such as fever-lowering medicine for high fevers—as opposed to supporting the fever and letting it take its course. Homeopathy takes the opposite approach. The medication is researched in experiments and that which causes symptoms similar to the disease in healthy people is then used, albeit greatly diluted, for healing.
64. See the Web site <http://homepage.sunrise.ch/homepage/jaegger/Miasma.htm>.
65. See the Web site www.gudjons.com.

Chapter Twelve: The Curse of the Sun God

66. According to the humoral pathology “doctrine of the four temperaments,” from the tradition of Hippocrates and Galen, the causes for diseases can be found in an unbalanced mixture of the four body fluids (sanguine, choleric, melancholic, and phlegmatic). These are referred to in medieval Latin as *humores*.

Appendix: Healing Plants

67. In the original:
Esst Kranewitt und Bibernell,
Dann kommt der Tod nicht gar zu schnell.
68. Elecampagne is *Inula helenium*.
69. “Burnet and masterwort are good against pestilence.”

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ABOUT THE AUTHOR

WOLF D. STORL received his BA in anthropology from Ohio State University, his MA in sociology from Kent State University, and his PhD in Ethnology/Anthropology as a Fulbright Scholar from the University of Berne, Switzerland. He has been a guest professor at the University of Berne, lecturing on cultural ecology, a Visiting Scholar at the Benares Hindu University, India, Department of Sociology, and has taught courses such as medical anthropology at Sheridan College in Wyoming and at Rogue Community College in Oregon.

Dr. Storl, who has spent time pursuing anthropological interests in India, Bangladesh, Burma, Thailand, China, and Japan, has published twenty-eight books, including *Culture and Horticulture: A Philosophy of Gardening*, *Witchcraft Medicine*, and *Shiva: The Wild God of Power and Ecstasy*, covering such topics as traditional folk medicine, medicinal paradigms of native people, herb lore, and ethnobotany. His books and articles have been translated into multiple languages (Czech, Polish, Lithuanian, Dutch, Danish, Italian, Portuguese, Spanish, French, and Japanese). Currently a freelance writer and lecturer, Dr. Storl has appeared on numerous radio and television broadcasts in Germany, Austria, Switzerland, and Great Britain (BBC). He lives in Rohrdorf, Germany.

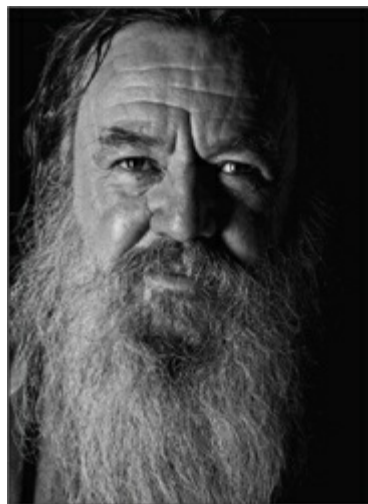


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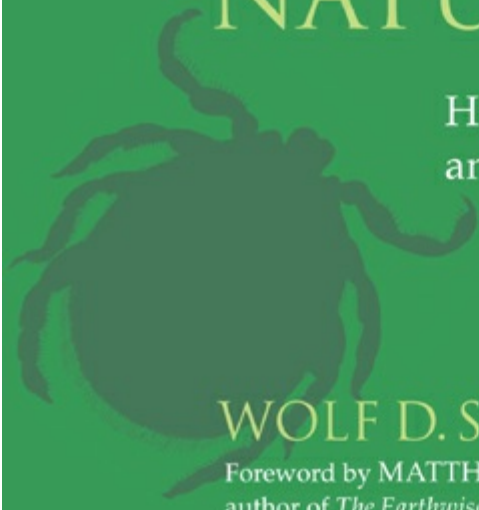
Wolf D. Storl

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Foreword by MATTHEW WOOD,
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