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BETWEEN EARTH AND SKY

OUR INTIMATE CONNECTIONS TO TREES

NALINI M. NADKARNI

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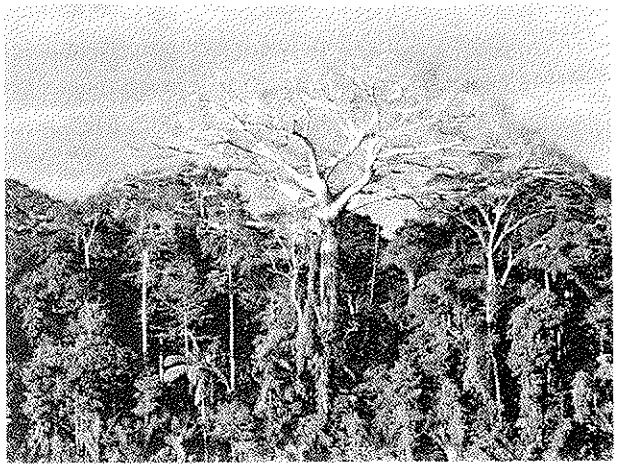
Chapter Eight

SPIRITUALITY AND RELIGION

God is the experience of looking at a tree and saying, "Ah!"
—*Joseph Campbell and Bill Moyers,* The Power of Myth

A giant *Ceiba pentandra* tree marked the spiritual beginnings of my marriage to Jack Longino, now my husband of twenty-four years. As graduate students, we had met in the rainforest of Costa Rica and fallen in love. We looked forward to exchanging our vows in the hybrid Hindu/Jewish/Presbyterian ceremony we were planning for our family and friends. But it seemed appropriate to seal our commitment in the crown of a rainforest tree, a hundred feet off the ground. After pulling ourselves aloft with ropes and climbing gear, Jack and I settled into the broad branches of the ceiba for the afternoon. As we toasted our decision to spend the rest of our lives together, we both observed that two smaller, separate branches farther out the limb had connected to the single larger, stronger branch on which we were sitting. There, held in the strong limbs of the tree with the man I loved, looking over the rainforest roof, I felt connected to something beyond myself, beyond the two of us—to something spiritual.

Trees satisfy the penultimate step of the modified Maslow pyramid, the need for spirituality. Because of their iconic form, their persistence through time, their rootedness in the soil, their skyward-extending branches, trees constitute for us a connection between Earth and the heavens that is both physical and spiritual. In important ways, they allow us to expand our sensibility beyond the mundane.



25. A giant silk-cotton, or ceiba, tree is a common sight on the tropical skyline. These trees grow remarkably quickly, creating broad, sweeping crowns. Photo by Greg and Mary Beth Dimijian.

WHAT IS SPIRITUALITY?

Although the terms *spirituality* and *religion* are often used interchangeably, they carry different meanings. Religion describes a set of beliefs about the supernatural or divine that answers questions of origin, purpose, morality, and mortality for its followers. In contrast, spirituality is defined in *Webster's Third* as the animating force traditionally believed to be within living beings; the part of a human associated with the mind and feelings as distinguished from the physical body. The Dalai Lama puts it like this: "Spirituality guides people about contentment, timelessness, right and wrong, self-discipline, change, peace, sharing, forgiveness, and tolerance."

Both religion and spirituality help people answer the fundamental ques-

tions of life: Who am I? Where did I come from? To what forces am I connected? Will it matter that I lived? Some people respond to these questions by joining a particular religion and aligning themselves with its creeds. Others find the answers in the patterns and activities of the world around them. Many have looked to nature—and specifically to trees—for guidance in living a more purposeful and meaningful life. Sogyal Rinpoche, the Buddhist author of *The Tibetan Book of Living and Dying*, wrote the following:

> Think of a tree. When you think of a tree, you tend to think of a distinctly defined object. But when you look at it more closely, you will see that it has no independent existence. When you contemplate it, you will find that it dissolves into an extremely subtle net of relationships that stretch across the universe. The rain that falls on its leaves, the wind that sways it, the soil that nourishes and sustains it all the seasons all form part of the tree. As you think about the tree more and more you will discover that everything in the universe helps make the tree what it is; that it cannot be isolated from anything else and at every moment its nature is subtly changing.

The word *human* could easily replace the word *tree* in this piece, and that can start us on our way to thinking about trees, spirituality, and humans.

In my life, spirituality arose from a range of traditions. My father—who died in 1999—was a Hindu; my mother is Jewish; and for several years, my siblings and I attended a Unitarian Sunday school. I conduct fieldwork in the Costa Rican village of Monteverde, founded by North American Quakers in 1950, and I attend the Friends Meeting whenever I am there. From this motley set of experiences, I have come to understand that beliefs are held in common across many faiths, and a number of basic tenets are linked to nature or understood through metaphors of nature. In recent years, I have abstracted these personal experiences to explore how people of different faiths understand trees and forests—as expressed in their holy texts, their religious practices, and the architecture of their places of worship.

In 2001, with the support of a Guggenheim Fellowship, I investigated

how scientists might better communicate science and conservation to non-scientific audiences, especially those whose bent is not to visit a science museum or read a natural history magazine. One aspect of this work was to present my thoughts on the connections between trees and spirituality in places of worship.

Before taking the pulpit, I attended services, listening to the sermon, singing the prescribed hymns, and contributing to the collection plate. After several months, I approached individual clergy, rabbis, and priests to offer to give a sermon or lead a discussion group on trees and spirituality. The congregations I addressed ranged from fundamentalist to progressive and included Episcopalians, Baptists, Unitarian Universalists, Zen Buddhists, Reform Jews, Conservative Jews, Roman Catholics, Methodists, and secular interfaith organizations. I presented my talks not as a religious person, but as an ecologist interested in understanding trees with my intellect and as a human being who cares deeply about trees with my heart. My audiences were eager to share their own experiences. After the sermons, members of the congregation would scribble quotations relating to forests from their holy scriptures in my notebook, sing a hymn that mentions trees, or offer an introduction to other congregations.

On one occasion, I spoke from the *bima* (meaning "high place," the raised platform from which the Torah is read) of the Jewish synagogue in Olympia, Washington. About fifty congregants had come on a cold, wet January night—a good night to stay home—to hear about trees, spirituality, and Judaism. One man sat in the very back row. He was elderly and blind, and everything he owned appeared to be resting damply in a shopping bag beside him. After the discussion, he stood up and directed his unseeing eyes upward. "When it is cold and raining, like tonight," he said, "and I stand under a tree, I stay dryer and warmer than when I am out in the open. Trees protect me." He paused. "Sort of like God." No conservationist could have put it better. Trees hold a central place for humans in the realm of the spiritual and religious.

TREES AS CONNECTIONS TO DIVINITY

COSMOLOGY AND THE WORLD TREE

Trees have long provided a useful metaphor for explaining our origins. A "world tree" is central to many creation myths and symbolizes the ultimate reservoir for the forces of life that continually regenerate existence. It frequently represents the axis of the universe—the *axis mundi*—that connects different realms of the cosmos. Its branches hold up the heavens, its trunk stands in the earthly realm, and its roots descend into the underworld. In Norse mythology, the ash tree Yggdrasil—resilient, supple, and strong—connected the three major realms of all beings: the upper realm, occupied by gods; the middle realm, occupied by humanity; and the lower realm of the dead.

Other cultures employ similar imagery. The world tree of many of the cultures of pre-Columbian Mesoamerica—in particular the rich Mayan civilization—represented the concept that the central core of the world is a tree. In the Yucatán Book of Chilam Balam of Chumayel, which contains much of what the Indians remembered of their old culture after the Spanish Conquest, this world tree is a pervasive symbol of the creation and ordering of the world. It is the axis of Earth-Sky, with its roots lying in Xibalba, the Underworld, its top reaching into the heavens. It is most often depicted as the silk-cotton tree (the tree in which my husband and I married ourselves), striking in both stature and structure. Some species can grow to 220 feet or more in height, with a straight, branchless trunk that culminates in a huge, spreading canopy and "buttress" roots that can be taller than a man—an appearance that reinforces its central presence in the cosmology of this civilization.

Trees occupy this same keystone realm in other cultures. The ancient Egyptians believed that a holy sycamore grew at the threshold between life and death. According to the Book of the Dead, twin sycamores stood at the eastern gate of heaven, from which the sun god Ra emerged each morning. The sycamore was also regarded as a manifestation of the goddesses Nut, Isis, and especially Hathor, who was called Lady of the Sycamore. The tree was often planted near tombs, and burial in coffins made of sycamore wood returned the dead person to the womb of the mother tree goddess. In the Shinto religion, sakaki, an evergreen tree in the camellia or tea family, is sacred. The *Kojiki* (Record of Ancient Matters), a text dating to the eighth century, describes how this tree brought light and life to a darkened world. In the Grand Shrine of Ise, the foremost Shinto shrine in Japan, the sakaki tree is represented by a sacred central post around which the wooden shrine is built. Branches of sakaki are used in rituals, often with paper streamers or mirrors attached, as offerings.

In the Hindu tradition, too, the world tree—a banyan—is a central image, but it is turned upside down, being rooted in the heavens and bearing its fruit on earth. All the gods and goddesses, all the elements and cosmic principles, are its branches, but each one is rooted in Brahman, who is identified with the stem of the sacred tree itself. As with the ceiba tree of the Mayans, the structure of the banyan tree reflects the spiritual concept of uniting heaven and earth. The banyan spreads over huge areas by sending aerial roots down from its branches. When the aerial roots touch the ground, they themselves take root and develop into stems, so that a single tree can constitute a whole forest—symbolizing the idea of multiple gods and spirits in all their localized aspects being part of the one ultimate source. Like Hindu cosmology, the medieval doctrine of Jewish mysticism known as Kabbalah envisioned a world tree with roots in the world of the spirit (the unseen) and branches upon the earth (the seen). Kabbalists used this tree (*Etz ha-Chayim* in Hebrew) to understand the nature of God and the manner in which the world was created out of nothing. The branched candlestick known as the menorah, one of the most ancient symbols of Judaism and used by Jews today to celebrate Chanukah, the Festival of Light, has links to this Hebrew Tree of Life. In imagery, this tree offers a "map" of Creation.

The notion of a tree as the *axis mundi* is not restricted to heavily forested lands. The Sami people (also known as Saami, Lapps, or Laplanders)

traditionally conceived of the world as a cosmic tent, with different levels of reality that corresponded closely to the different worlds of Norse mythology. In some Siberian tribes, such as the Yakut of southeastern Siberia, the connection between worlds is the cosmic tent-pole; the cosmic smoke-hole at the top is the North Star, and humans may gain access to other worlds by climbing the world tree.

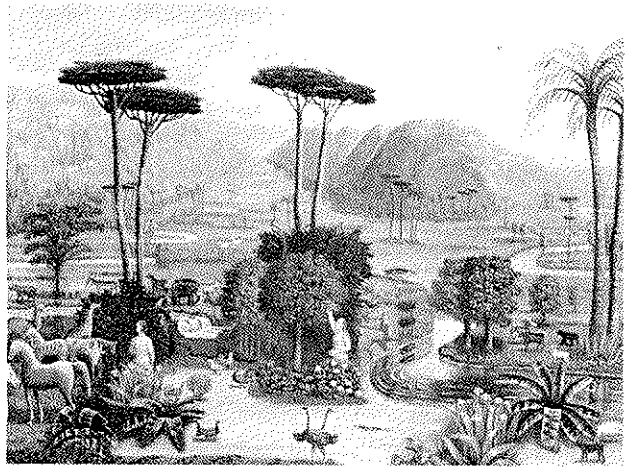
Many of these same cultures connected the world tree—which linked the worlds of gods and humans—with the provider of things that sustain life, and thence to the symbolic Tree of Life. In Babylonian mythology, the Tree of Life was a magical tree that grew in the center of Paradise, with primordial waters flowing from its roots. In Egyptian mythology, the sycamore tree on which the gods sat bore nourishing fruits that fed the blessed. Many species of ash—the species of tree that was Yggdrasil—exude a sugary substance that the Greeks called *me'li*, or honey. This may explain how Yggdrasil could rain honey on the world, while mead—wine made with honey—flowed from its branches.

The materials provided by these sacred trees could be symbolic as well as physical. In ancient India, the leaves of the world tree were called Veda (knowledge), since wisdom and understanding were considered to be the essential fuel for spiritual growth. The image of trees bearing leaves that become accessible to those associated with this symbolic tree permeates many Eastern cultures. Zoroaster said, "To the soul, it [the Tree] is the way to heaven." Proverbs 3:18 says, "It is a tree of life to those who lay hold of it; those who hold it fast are called blessed"—"it" being wisdom, which can be equated with God's revelation of himself to believers.

Of course, we all know the story of the Garden of Eden: "The Lord God made to grow every tree that is pleasant to the sight and good for food, the tree of life also in the midst of the garden, and the tree of the knowledge of good and evil." When he created Adam, he put him in the garden "to till it and keep it. And the Lord God commanded the man, saying, 'You may freely eat of every tree of the garden; but of the tree of the knowledge of good and evil you shall not eat, for in the day that you eat of it you shall die'" (Genesis 2:9, 16–18). John McLain, a divinity school graduate turned academic grant-writer and a friend of mine, calls the Tree of Life "a symbol of the goodness of creation: its sustenance, shelter, and beauty." Of the Tree of the Knowledge of Good and Evil, however, he asks:

> Why were Adam and Eve allowed to eat from the other trees in the garden but not this one? Perhaps knowledge of good and evil makes us like God, but in all the wrong ways. Like trees, we ought to simply grow where we take root and consume only that which is given to us. The forbidden fruit opens a Pandora's Box of possibilities for humans who cannot yet wield its choices responsibly. The story, however, holds its own seeds of hope. Adam and Eve, though expelled forever from the Garden, also set humanity on a path to restore its relationship with God and regain its place in creation.

What about the spiritual roots of cultures that evolved in the landscapes of my own homeland, North America? Many of the ways that the symbolism and structure of trees have infused the cosmology of the peoples I described above are also evident in the rich cultures of Native Americans. It is important to recognize that the North American continent is home to over five hundred indigenous tribal peoples, each with their own spiritual beliefs and rituals, not to mention natural environments, so to speak of a single, monolithic "Native American spirituality" is incorrect. However, it is true that for many indigenous peoples, spirituality that is directly linked to nature played and continues to play a central role in their lives. Chief Seattle, a nineteenth-century leader of the Salishan people of what is now Washington State, said that "all things share the same breath—the beast, the tree, the man, the air shares its spirit with all the life it supports." The Native American historian Angie Debo, in generalizing about Native American attitudes, described the archetypal Indian as "deeply religious. The familiar shapes of earth, the changing sky, the trees and other plants, the wild animals he knew, were joined with his own spirit in mystical communion. The powers of nature, the per-



26. The biblical Tree of Life is a central figure in religious and cultural imagery worldwide. Erastus Salisbury Field, The Garden of Eden, *photograph © 2008 Museum of Fine Arts, Boston.*

sonal quest of the soul, the acts of daily life, the solidarity of the tribe—all were religious, and were sustained by dance and ritual."

The relationship between the people and the land was one of interdependence, and the form of worship varied with the environment. To those who relied on buffalo for food, clothing, shelter, and implements, for example, the buffalo played a central role in their cosmology. Those who dwelt in the Pacific Northwest considered the forest and certain trees, such as western red cedar, fundamental to their spiritual lives. The practical uses intertwined with the ritualistic and spiritual applications. In such a world, everything is imbued with spirit, and there is a constant dialogue among all the manifestations of creation. One theme found in some tribes explains the universe as being composed of multiple layers that are linked by the symbolic world tree, which has its roots in the underworld, stretches through the world of humans and animals, and has its crown in the sky world. All these worlds function together in a cosmic whole. World order is founded on a balance of interrelationships between humankind, the universe, and the supernatural powers. Native Americans see it as their task to live in harmony with this universe. Lorain Fox Davis of the Cree-Blackfeet tribes, director of the Rediscovery Four Corners, a nonprofit organization that serves Native American youth and elders, described the Sun Dance of the Plains Indians as one example of this focused spiritual expression.

> It is a ceremony of sacrifice and thanksgiving honoring the sacredness of the circle of life. From sunup to sundown, each day for four days they dance and fast—without food, or water. Each day the four major races of people are prayed for; children, adolescents, adults and elders are prayed for; those who swim, fly, crawl, the green and growing things, and the stone people are prayed for; each of the four sacred directions, the powers of those directions, and the elements are prayed for. Everything is brought together in the circle, all living things are danced and sung for. In the center of the circle is the Tree of Life, and the people dance around her. They dance and sing and focus on "all our relations, and our humble place in the circle of life." For four days the dancers pray for all of creation first, before they include themselves. They end all prayers with "O MITAKUYE OYASIN," meaning "I do this for all my relations (or all sentient beings)."

TREES AS GUIDEPOSTS TO ENLIGHTENMENT

Trees often serve as guideposts in the human search for meaning and direction. In the introduction to this book, I described the experience of bringing people who had never seen a forest into the forest canopy. One of these was Brian Arululak, an Inuit artist from the tundra of Nunavut, Canada. A man of quiet temperament, he was skilled at creating small paintings. For the first five days of our camping retreat our tents nestled at the base of a tall hemlock tree, which he had learned to identify by species name, *Tsuga heterophylla*. Brian would paint detailed scenes of his native tundra: ice fishing, polar bears, and the flat, treeless landscapes of the far north that he calls home. On the last day, he gave me a painting that contained several tall, skinny trees that looked much like long garden stakes—reminding me that *nahaaqtut*, the word for "tree" in his native

Inuktitut language, actually means "pole." He had also painted a stone cairn in the shape of a T directly in front of the trees he had drawn. When I asked him what the cairn was for, he said, "Where I live, there are no trees for wood fences. We use piles of stones to mark the trails in the tundra. These cairns are our guideposts." He pointed to the tree and continued, "This week, sleeping under our *Tsuga heterophylla*, I have seen that trees are your guideposts."

Brian's insight was correct. Towering over the human form, with lifespans that transcend human generations, trees are often revered as links between heaven and earth, between the spiritual and the mundane. Hermann Hesse wrote: "In a tree's highest boughs, the world rustles, its roots rest in infinity." The same sense is found in the words of Carl Jung, the founder of analytical psychology, who wrote: "Trees in particular were mysterious, and seemed to me direct embodiments of the incomprehensible meaning of life. For that reason, the woods were the place that I felt closest to its deepest meaning and to its awe-inspiring workings."

Many religious stories about spiritual awakening include trees as central figures. One seeker of enlightenment, the Buddha, was born over 2,600 years ago in a grove in Lumbini, in what is now Nepal. The Buddha's mother, Queen Maya, was traveling to her parental home when she gave birth. Standing under a sal tree, she grasped a low branch to support herself, and her infant, Siddhartha, emerged. As a youth, Siddhartha renounced his kingdom to avoid the unending cycles of birth, aging, and death. For many years, he wandered in the wilderness as an ascetic. After years of study and meditation, Siddhartha sat under a large Bodhi tree, or pipal, in the Mahabodhi temple grounds in Bodhgaya (now eastern India), resolving not to rise from the spot until he attained enlightenment. After many days, Siddhartha arose as the Buddha, the Awakened or Enlightened One. He was thirty-five years old. He spent the next forty-five years teaching others the path to enlightenment, mostly in the shade of the great banyan trees in village squares. This poem by Kenneth Rexroth,

in which the Buddha addresses one of his principal disciples, Ananda, describes how the Buddha used trees metaphorically in his teachings:

The City of the Moon

Buddha took some Autumn leaves
In his hand and asked
Ananda if these were all
The red leaves there were.
Ananda answered that it
Was Autumn and leaves
Were falling all about them,
More than could ever
Be numbered. So Buddha said,
"I have given you
a handful of truths. Besides
these there are many
thousands of other truths, more
than can ever be numbered."

At the age of eighty, Buddha knew he was close to death, and so he lay down in the shade of two sal trees, which were in unseasonably full bloom. For hundreds of years after his death, the Bodhi tree represented Buddha's image in place of a human likeness. The tree that stands in the Mahabodhi temple today is a descendant of the tree that was growing in Buddha's time. A cutting of that tree was taken to Sri Lanka in the third century B.C., and a sapling from it was later brought back to Bodhgaya. Since then, the Bodhi tree has been burned and cut down various times, but as legend has it, it has miraculously grown back each time.

I enjoy finding connections in the biology of sacred trees that might explain the spirituality that is attributed to them. Consider, for example, the sal tree, which marked both the birth and death of the Buddha. While continuing to satisfy spiritual needs through its association with Buddhism, it meets a variety of more down-to-earth human needs as well. It is in the family Dipterocarpaceae, native to Southeast Asia, whose members

have a tall, strong stature, with erect trunks and excellent wood. Lumber from the sal tree is used for building houses—the pores in its wood contain a resin that makes the timber very durable—and people use the leaves as dinner plates, and as cattle fodder and fertilizer.

The banyan tree, too, mirrors its sacred status in its biology. Since a seedling does not require soil to become established, it can grow perched on another, larger plant or a rock wall. This aboveground position gives the young tree more access to light and less competition from ground-dwelling plants. Water comes only from rain and the humidity of the air, while nutrients such as nitrogen are absorbed directly from rainfall, decomposing leaves, and dead insects. From its elevated nursery, the young banyan sends its roots toward the ground; once the roots reach soil, the plant switches over to growing as a normal tree. The roots of an adult banyan follow cracks and crevices where soil and water accumulate. Not only do these distinct forms of the banyan reflect human physical and spiritual development, but they can also be related to the multiple ways that religion enters the life of a follower.

Other attributes of the banyan mirror the spiritual characteristics of protection and strength, attributes that are taught by leaders of all of the world's religions. It supports a thick overhanging canopy of deep green leaves, which shades the understory plants from intense sunlight. Its leaves are heart shaped, with an elegant tail-like "drip-tip" that guides rainfall down to the soil at a gentle pace, protecting the soil from the pounding monsoonal rain.

SACRED GROVES

Traditions hold that certain forest groves are dwelling places for spirits and places where humans and deities can walk on common ground. In the first century B.C., Seneca, the Roman senator and orator, wrote: "When you enter a grove peopled with ancient trees, higher than the ordinary, and shutting out the sky with their thickly intertwined branches, do not the stately shadows of the wood, the stillness of the place, and the awful gloom of this doomed cavern then strike you with the presence of a deity?"

My father was respectful of trees. When I was a child, I would watch him when he had to periodically trim back the branches of the maple trees that lined our driveway to maintain a clear view of the road outside our house. He would pause and deliberate before each cut he made with the lopper, as he called the plant clippers, trying to minimize the number of limbs he lopped and the length of each shorn segment. When he was finished with his cuts, he would have me fetch him the small can of tree paint from a special shelf in the garage. With great care, he would coat each exposed surface to help heal the wounds he had made.

Perhaps these sensibilities came from his having been born and raised in India, where early inhabitants perceived a godly element at work in places of natural beauty, especially in trees. Centuries ago, many villages set apart sacred land for the "tree spirits," or *vanadevatas.* According to the Hindu Deva Shastra, "trees serve as homes for visiting devas [spirits] who do not manifest in earthly bodies, but live in the fibers of the trunks of the trees, feed from the leaves, and communicate through the tree itself" (verse 117). Would-be parents propitiated the spirits by tying toy cradles to the branches of trees in sacred groves. The groves were sites for celebrations. Although it was permissible to collect deadwood as fuel for cooking fires, doing damage to the sacred grove, especially by felling a tree, could easily invite the wrath of the local deity, causing disease, natural disaster, or the failure of crops.

Despite the ebbs and flows of many political and religious systems, spiritual beliefs have been the prime force preserving these groves in this country of one billion people. In 1995, 13,270 sacred groves existed in India, ranging in size from a few trees to hundreds of acres, often associated with water sources. All of them have a resident deity; often it is Shiva or Vishnu, two of the major Hindu incarnations of God.

The basic elements of nature, in the form of Prithvi (Earth), Agni (Fire), Jal (Water), Vayu (Air), and Akash (Space), have been revered from ancient times as the abodes of God, manifested in the land and water, flora and fauna. As a result, the groves got protection for spiritual as well as cultural, social, and ecological reasons. One especially revered tree

species is oak, important for fodder and fuel. It is viewed as improving soil fertility through efficient nutrient cycling and conserving soil moisture through humus buildup and via its deep root system, with root biomass uniformly distributed throughout the soil profile.

In some groves, nothing may be removed, while in other groves, people are allowed to gather materials such as fallen branches and leaves from the forest floor or fruit from the trees. The Western Ghats—a mountain range that runs along India's southwest coast—are one of the world's biodiversity "hotspots," as proclaimed by Conservation International in 1999. Biologists estimate that two thousand plant species and three hundred vertebrate animal species are endemic there—meaning they live in this region and nowhere else. In Kerala, one part of the Western Ghats, some sacred groves are dedicated to the conservation of snakes, which protect agricultural crops by controlling insect and rodent populations. In the arid region of Rajasthan, in northwest India, the Bishnoi tribes manage sacred groves called orans. These provide a protective habitat for the blackbuck, a striking ungulate that lives in open plains and one of the fastest animals on Earth. Adult males have spiraling ringed horns that can reach nearly two feet in length. The Indian gazelle is another species that survives in large part due to protection of the Bishnoi sacred groves. This lovely ungulate has a smooth, glossy summer coat of a warm biscuit color, with dark chestnut stripes on the side of its face. It is a shy animal and avoids humans. The gazelle is of interest because of its ability to survive severe drought, being able to procure sufficient water from eating desert plants and licking dew from foliage. Although its habitat is protected in the groves, the gazelle is not; as a result, it is classified as extremely vulnerable and is included on the highly endangered species list.

Sacred groves are not restricted to India, of course. In Europe, people have sought out the spiritual protection and mystical energy of forests since prehistoric times. Trees and spirituality are intimately linked in druidism, a pre-Christian religion whose adherents worshiped the spirits of trees. The word *druid* (first written down in Greek) is traced to the Indo-European roots *deru-*, meaning "firm, solid, steadfast," and hence

27. Druid religion and culture predate Christianity, and many of their ideas and traditions were adopted by the Christian church. Charles Knight, "Archdruid in His Full Judicial Costume," from Old England: A Pictorial Museum, *1845.*

"tree"; and *-weid*, meaning "to see," and by extension "wisdom" or "knowledge." In pre-Christian Celtic society, druids formed an intellectual class of philosophers, judges, educators, doctors, astronomers, astrologers, and advisers to kings. The oak was their sacred tree, and they venerated mistletoe, which grew in its branches. Nearly every tribe in ancient Gaul possessed a sacred meeting place surrounded and protected by trees in which a local deity was believed to reside. These were centers of religious ritual, and the trees' destruction was viewed with the same horror that would attend the burning of a church or bombing of a mosque today. Cutting down a tree in a sacred grove could mean death for the offender.

Our knowledge today of druidic prayers is limited. Theirs was an oral culture, and their sacred songs, prayers, and rules of divination and magic were learned by heart. The druids were suppressed in Gaul and Britain after the Roman conquests, and a prescript of Augustus forbade Roman citizens from practicing druidic rites. Instruction then became secret, carried on in caves and forests. Gradually, the Christian church absorbed many Celtic practices: pagan gods and goddesses were transformed into

Christian saints, and pagan temple sites became cathedral grounds. By the seventh century, druidism had been driven deep underground throughout most of the formerly Celtic lands, and because its traditions were mainly oral, it nearly died out completely, with little that could be deemed "authentic" remaining. Eleven centuries later, however, England experienced a revival of interest in the druids, and this interest has continued into the present day. Several notable Britons were initiated into druidic orders, including William Blake and Winston Churchill. Modern druids are especially inspired by a concern for the environment; they protect groves that support mistletoe, fight the culling of badgers in the countryside, and disseminate information on global climate change.

Sacred groves exist in many other areas of the world. In Africa, for example, areas of what are now Nigeria and Ghana continue to retain forests because their spiritual properties were considered valuable by those who lived in and around them. A tree or woodland may have become sacred for various reasons: to mark the spot where a founding ancestor stopped, to provide habitat for totemic animals, or because it is linked to a desirable human characteristic. For example, the Osun-Osogbo Sacred Grove of Nigeria, which contains dense forests, is dedicated to the fertility god in Yoruba mythology; dotted with shrines and sculptures, it was designated a UNESCO World Heritage Site in 2005. In the arid lands of West Africa the sausage tree produces large woody fruits that look like enormous elongated hanging bags. Because these represent powerful fertility images, women who are nursing children tie strips of fabric on the tree to ask for numerous offspring. Then there is the tamarind, which is always green and has hard and durable wood. Its severe and imposing appearance leads to its association with the presence of spirits, and people endow it with values related to tenacity under duress.

TREES IN SACRED ARCHITECTURE AND THE SACRED ARCHITECTURE OF TREES

I have always been struck by how, so often, our houses of worship reflect the physical structure of trees in their architecture. People have speculated that Greek temples, with their fluted stone columns, were architectural renditions of sacred groves. The Gothic cathedral reveals the linkage with trees especially strongly, with its ribbed vaults, flying buttresses, columns, and spires. When I enter the nave of a cathedral—whether it is the massive Notre Dame in Paris or a tiny church in a Costa Rican village—my eyes and spirit move upward, just as they do when I walk in tall forests. John Muir may have been feeling this same sort of reverence when he named the Cathedral Grove of coast redwoods, in what is now John Muir Woods National Monument, north of San Francisco. This name is appropriate, as Muir equated his perception of wild trees with a sense of the divine, as expressed in this passage from *My First Summer in the Sierra* (1911): "A few minutes ago every tree was excited, bowing to the roaring storm, waving, swirling, tossing their branches in glorious enthusiasm like worship. But though to the outer ear these trees are now silent, their songs never cease. Every hidden cell is throbbing with music and life, every fiber thrilling like harp strings, while incense is ever flowing from the balsam bells and leaves. No wonder the hills and groves were God's first temples."

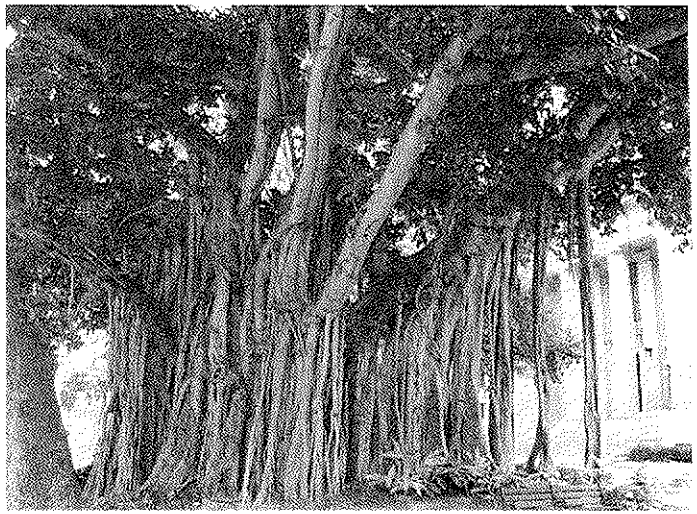
Trees commingle with religion and religious architecture not just suggestively, but physically as well. In India, Hindu temples are nearly always shaded by a banyan tree, which is mirrored in an adjacent pool of clear water. Some of the most powerful examples of the intertwining of nature with religion are found at Buddhist temples in Thailand, where the roots and trunks of banyans grow so intimately with the stone walls that the two become indistinguishable. Perhaps the largest religious monument ever built is the 500-acre Angkor Wat in Cambodia, from the early twelfth century, a classic exemplar of Khmer architecture and art. It is dedicated to the Hindu god Vishnu the Preserver. Throughout the temple complex, carvings and sculptures depict gods, battle scenes, dancers, and events in Hindu mythology. Working in sandstone, a fairly soft material, made the construction project easier for the five thousand artisans and fifty thousand laborers who built the temple over the course of thirty years. One of the most striking characteristics is the strangler figs that grow on and

between the sandstone blocks, in some cases holding them together like a mesh bag holds mangoes from the market.

Individual trees can serve as a spiritual refuge as well. Banyan trees are still found in almost every village in India, and small shrines are traditionally built under them. They are the heart of the village's sacred life because they encompass the spiritual qualities that humans cherish: longevity, serenity, and resilience. My father often spoke of his youth in the small village of Thane (pronounced TAH-nah), where he and his father and grandfather would sit in the central square in the shade of such a tree. Today, that little village is a bustling suburb of Mumbai, but the square and its banyan tree survive.

Children especially love banyan trees, which have a wonderful form for climbing, with broad, sturdy branches and numerous roots hanging down like thick vines, ideal for swinging. When I was seven years old, my family visited India to see our many relatives. Some of my dearest memories of that holiday include swinging on the roots of the banyan trees in each village we stopped at. Even at that age, I perceived that the spiritual and social lives of the village were entwined. Adjacent to the bough-protected altars to Shiva, Ganesha, and other Hindu deities, the *panchayat*, or village council, would meet. One of the oldest democratic systems in use today, this council makes decisions on key social and economic issues, acting as a conduit between the villagers and their regional government. Traditionally, too, merchants, traders, and the village barber and fortune teller would set up shop under the banyan's spreading branches. In fact, the tree gets its name from the Gujarati word *banian*, which means "trader."

Many other cultures hold the banyan as both a spiritual and social anchor. In Bali, banyan trees are considered "elders" of the tree kingdom and accorded special respect. Motorists honk when they pass a banyan tree on the road—not the usual beep of impatience, but a polite greeting to the tree. In Cambodia, people believe that their history is like that of the banyan tree, composed of a thousand branches intertwined, merging the past and present, forever changing and growing.



28. The banyan tree is a central participant in the social, cultural, religious, and economic life of many villages in India and other Asian countries.

TREES IN SPIRITUAL WRITINGS

The birthplace of Christianity, Islam, and Judaism is the arid desert of the Middle East. In the holy writings and scholarly commentaries of these religions—the Old and New Testaments, the Qur'an, the Talmud—over twenty species of trees, or products of trees, are mentioned: acacia, almond, apple, carob, cedar, citron, cypress, date palm, ebony, fig, frankincense, oak, olive, pine, pistachio, plane, pomegranate, poplar, sycamore, tamarisk, terebinth, walnut, and willow. I wanted to find out how these trees were used by the followers of these faiths, so I downloaded the Old Testament and the Qur'an and did a computer search for the words *tree* and *forest*. I got 328 hits. I then categorized each verse into the different uses to which the trees were put. I found that the texts frequently describe practical uses, especially for food, protection of water sources, and shelter. For example, in Genesis God declares: "I give you every seed-

bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be yours for food" (1:28–30). The Qur'an evokes a lovely representation of the bounty of trees: "Grieve not, for thy lord has placed a stream beneath thy feet; and shake towards thee the trunk of the palm tree, it will drop upon thee fresh dates fit to gather" (19:25–26). In his writing on Islamic environmental ethics, Mawil Y. Izzi Deen makes an even stronger statement on the importance of planting trees, saying that "even when all hope is lost, planting should continue for planting is good in itself. The planting of the palm shoot continues the process of development and will sustain life even if one does not anticipate any benefit from it." The prophet Muhammad said, "When doomsday comes, if someone has a palm shoot in his hands, he should plant it."

In my searches of the Old Testament, I found that these sacred writings contain many metaphors equating trees with bounty. The righteous are compared to a tree planted by a stream, always fruitful and with well-watered roots, whose foliage will never wither (Psalm 1; Jeremiah 17:8). The righteous are also said to thrive like a palm and to grow tall as a cedar in Lebanon, full of sap and richness (Psalm 92) or like a leafy olive tree (Psalm 51). The presence of grapes on people's vines or figs on their trees often denotes safety and prosperity. The prophet Micah envisioned a time of world peace, when everyone shall "sit under his vine and fig tree and none make them afraid" (Micah 4:4).

Trees also served the ancient Hebrews as geographical reference points: "Abram traveled through the land as far as the site of the great tree of Moreh at Shechem" (Genesis 12:5–7). Many passages describe decorations in the shape of trees on objects and structures: "On the walls all around the temple, in both the inner and outer rooms, he carved cherubim, palm trees and open flowers" (1 Kings 6:28–30); or "the face of a man toward the palm tree on one side and the face of a lion toward the palm tree on the other were carved all around the whole temple" (Ezekiel 41:19).

So essential and useful are trees that the Bible instructs Hebrew warriors to spare them: "When thou shalt besiege a city a long time, in making war against it to take it, thou shalt not destroy the trees thereof by forcing an axe against them: for thou mayest eat of them, and thou shalt not cut them down (for the tree of the field is man's life) to employ them in the siege" (Deuteronomy 20:19).

Sacred writings of Islam likewise express strict rules of combat, rules that similarly include prohibitions against destroying trees. Soon after the prophet Muhammad died, Abu Bakr, his trusted caliph and friend, guided the Muslim army to defend its lands. His final instructions to the troops is a code of conduct in war that remains unsurpassed to this day: "Do not be deserters, nor be guilty of disobedience. Do not kill an old man, a woman or a child. Do not injure date palms and do not cut down fruit trees. Do not slaughter any sheep or cows or camels except for food. You will encounter persons who spend their lives in monasteries. Leave them alone and do not molest them."

The spiritual or religious value we assign to particular objects, such as trees, is often indicated by their inclusion in rituals and celebrations. When I studied comparative religion in college, I learned that Judaism originated as the religion of a pastoral, agrarian people who lived their lives in close daily contact with the natural world and saw their God manifest in it. The legacy of these origins can still be seen today, in Jewish holy writings, philosophical and legal traditions, and prayers and celebrations. In 1916, my mother's parents fled the pogroms of Russia to start a new life in New York City. My mother grew up in Brooklyn, speaking Yiddish and strictly observing the Sabbath. As a child, I loved to imitate the guttural cadence of Yiddish, the language she spoke with her own mother—my Bubby—and to hear about the holiday celebrations of her childhood: lighting the Chanukah menorah, eating *hamentaschen* (sweet buns) on Purim, and hiding the matzoh for the Passover seder.

As a child who climbed trees, I thought that Tu B'Shvat, the New Year of the Trees, was the best of the Jewish holidays by far. It falls on the fifteenth day of the month of Shvat, the fifth month of the Jewish calendar—typically, around mid-January. Tu B'Shvat's beginnings were strictly secular. The Torah required farmers every year to give a tenth of all crops

grown to the priests of the Holy Temple, and Tu B'Shvat marked the start of the new tax year: all the fruits that grew from that day on were factored into the following year's tithe. It came to be celebrated as a minor holiday during the Middle Ages, but in the 1600s the Kabbalists, a mystical sect of Judaism that seeks insights into divine nature, carried it a step further. Concerned with *tikkun olam*—the spiritual repair of the world—they regarded honoring trees as one way of improving their spiritual lives. The Kabbalists created a Tu B'Shvat seder, which involves drinking four glasses of wine and eating many different fruits while reciting verses. (Eating fruit is a way of expiating the first sin, when Adam and Eve ate the fruit of the Tree of Knowledge.) Over time, the holiday became a day for celebrating trees, and beyond that, a day for celebrating Jews' connections to nature. In Israel and other countries, the day is commemorated with tree-planting ceremonies, and people give money to plant trees. Through these actions, modern Israelis affirm a future for their children, who will grow up enjoying the trees' fruit, shade, and beauty. One Tu B'Shvat blessing reinforces a daily mindfulness of God's presence in the natural world: "Blessed are you, Lord our God, spirit of the universe, whose world lacks nothing needful and who has fashioned goodly creatures and lovely trees that enchant the heart."

SPIRITUAL TEACHINGS FROM TREES

At times, the sounds and activities that surround religious and spiritual activities—the crescendos of high mass, the morning calls of the muezzin, and the jubilant chords of gospel music—can obscure the association of spirituality with quiet. In many cultures, however, a mindful focus on the breath is an important spiritual practice—for without breathing, life ceases. The word *spirit* derives from the Latin word *spirare*, to breathe, as do the words *spirituality*, *inspire*, and *expire*. The Hebrew words for breath, *nesheema*, and for soul, *neshama*, likewise share a single root. Trees serve as quiet reminders to slow down and breathe, sit in silence, and meditate. They breathe too, though they have no lungs or gills. Day and night,

plants—just like animals—respire, taking in oxygen and releasing carbon dioxide, a process that provides energy for metabolism, growth, and reproduction. During the daytime, trees also carry out photosynthesis, harvesting energy from sunlight and converting it into sugars, which animals can then use to meet their energy needs. During this process, which is the complement of respiration, carbon dioxide is absorbed by the plant, while oxygen is exuded through stomata, the tiny pores on the underside of their leaves. Because the amount of oxygen a tree creates far exceeds its own respiratory needs, trees continually replenish the oxygen supply for humans and other animals. Thus every tree, every plant, every leaf becomes a connector among living things.

Every Tree

Every tree, every growing thing as it
Grows says this truth: You harvest what

You sow. With life as short as a half-
Taken breath, don't plant anything but

Love.

—*Rumi*

Like breathing, silence accompanies the sacred. We hush our voices when we enter a house of worship. The most powerful moments in ceremonies involving birth, marriage, or death are silent—the instant of inbreath just before the first cry of a newborn, the moment preceding the exchange of marriage vows, the interval when heads are bowed in remembrance of the dead. When I walk in the forest, silence is the companion I most avidly seek. I find it when I watch the concentric circles of a plunked pebble expand noiselessly in an alpine lake. When I see an isolated elm on a busy urban street, I experience both physical and spiritual peace amid the tumult of my noisy everyday existence.

In my childhood modern dance lessons I learned about "still points"—moments in the dance that are choreographed to be utterly still: although the music continues, the movement stops. Like punctuation in a short story or line breaks in poetry, still points provide a striking counterpoint

to the movement that goes on before and after. Lately, I have become more aware of the excessive speed with which I live, and have consciously tried to slow myself down. I find myself looking for still points in my days and years, stopping to pause amid the tasks and tugs of a busy family and professional life. Happily, there are silent, yet vivid, reminders all around me, including the trees outside my window, in the parking lot, even in the articles I read. These serve as the still points in my day.

I Go Among Trees and Sit Still

I go among trees and sit still.
All my stirring becomes quiet
around me like circles on water.
My tasks lie in their places
where I left them, asleep like cattle. . . .

Then what I am afraid of comes.
I live for a while in its sight.
What I fear in it leaves it,
and the fear of it leaves me.
It sings, and I hear its song. . . .

—*Wendell Berry*

One branch of Buddhism is Zen, a term that comes from the Sanskrit *dhyana*, meaning "meditation." There is no god to worship, no formal rites to observe, and no future abode to which the spirits of the dead are destined. A major piece of Zen practice is *zazen*, or sitting meditation, which uses the breath to steady the mind. The essential point is to strive to be aware of and let go of distractions such as thoughts, emotions, and images. Zen Buddhists revere silence. They pay attention to air entering and exiting their nostrils to initiate and maintain a meditative state. This practice—of stopping, calming, and concentrating—is critical to their spiritual development. Although I know of no Zen practice that specifically includes trees, the outer stillness and silence that trees embody evoke the inner quiet that practitioners emulate in their meditative state.

Another Eastern philosophy is the Tao (the "path" or the "way," also

called the Dao), founded by the Chinese master Lao Tzu. The aim of Taoism is to perceive the world as it actually exists, to understand limitations, and to see our life's path with clarity and simplicity. One important concept is chi, the vital energy of the universe that exists in all things, both living and inanimate. Chi, with its cosmic origin, is elusive and mysterious. It is represented as an aura generated by a body. Often, people practice seeing auras using large trees because it is said that a tree's chi is strong. It apparently looks much like a candle flame, with tongues of light extending outward. Those seeking to see auras are directed to find a group of trees during the transition between night and day. Seekers should be relaxed, balanced, and centered. If they pay attention and soften their sight, they should see a "flaming off" of the tree's chi toward the heavens.

Conversation among Mountains

You ask why I live
in these green mountains

I smile
can't answer

I am completely at peace

a peach blossom
sails past
on the current

there are worlds
beyond this one

—*Li Po*

The speaker in Li Po's poem seems to have found both useful knowledge and some deep sense of peace by dwelling on his green mountain. When I read this piece, I imagine a small-statured, simply clad man with a wooden staff walking slowly back to his sanctuary, the dark green of deciduous tree crowns shading his path. I see a small smile on his face, not the kind that responds to a joke, but rather one that reflects the recent memory of flower petals moving downstream before him, teaching him a simple lesson about time. Hermann Hesse also suggested that we use trees to

help us find the answer to spiritual questions: "For me, trees have always been the most penetrating preachers. Trees are sanctuaries. Whoever knows how to speak to them, whoever knows how to listen to them, can learn the truth. They do not preach learning and precepts, they preach, undeterred by particulars, the ancient law of life."

One thing that tree form and function teach us is that living things are connected to each other, often in hidden ways. Although we each have separate perceptions, consciousness, and sensations, no individual exists apart from the world. This fact is echoed in food webs, ecosystems, and global ecology. Plants, animals, fungi, microbes, bacteria, and humans are all linked. No action we take will be without an effect on another being. The fossil fuels we burn in the United States contribute to global warming, which is submerging a Pacific atoll tens of thousands of miles away.

Observations I have made on an obscure canopy-dwelling plant support this idea. In lowland forests of the Pacific Northwest, the licorice fern grows on the branches of mature bigleaf maples, embedding their succulent licorice-flavored rhizomes (rootlike structures) in thick mats of moss and associated arboreal soil and organic matter. The graceful green fern fronds proliferate during the winter, with individual stems popping up in the early autumn when the winter rains start and then dying back with the onset of the summer drought. Like other botanists, I had always assumed that these stems were independent individuals, each with a unique genetic configuration. But one day when I climbed a maple tree to make some routine measurements of moss growth, I stuck my fingers into the moss mats to trace the root line of a fern frond. I traced it to the base of an adjacent frond, which was attached to the same rhizome. That root led to another shoot attached to the same root, and on and on, from branch to branch, connecting fern to fern all over the tree. Although fern fronds appear to be single individuals, they are actually interconnected physically and genetically—as am I, to my family, friends, colleagues, students, and, in a way, to trees.

A second lesson from trees is that we must be aware of things that are hidden. The belowground world represents the elements that we hide from

ourselves and others—our troubles, ill health, addictions, and weaknesses. At times, we also conceal our greatest hopes and desires, our deepest personal truths, our untapped abilities, and those things that are most sacred to our spirits. The word *truth* is derived from the Old English *treowth*, meaning "fidelity," which was derived from the Sanskrit *daruna*, meaning "hard," and *dāru*, meaning "wood." We must recognize that these hidden parts are important parts of ourselves and not something to discount.

Late in his life, the poet Rainer Maria Rilke maintained a correspondence with a young poet named Franz Xaver Kappus. In some of his letters, Franz describes feelings of emptiness and loneliness, which he confesses he tends to bury. In a letter from Rome dated December 23, 1903, Rilke suggests that his young friend try to learn from his feelings of emptiness, and so, perhaps, come to cherish them: "What is necessary, after all, is only this: solitude, vast inner solitude." The solitary individual, he assures Kappus, has no cause for anxiety or sadness. "The nights are still there, and the winds that move through the trees and across many lands; everything in the world of Things and animals is still filled with happening, which you can take part in."

Forests perfectly embody what Rilke calls "filled with happening," the dynamism of life—though that very dynamism is something we humans often find difficult to accept. Whenever I revisit a favorite forest trail, I regreet the same trunk, the same stream, the same deep smells I noted the month before, and that gives me a sense of stability. However, trees change—a lot, and sometimes quickly. Although seasonal patterns are most pronounced in deciduous forests, even conifer trees, which seem not to lose their foliage, reinforce the law of life that everything must change. In the Pacific Northwest, where I take hikes and trail runs, it is the mosses that grow on trees that provide the greatest evidence of change. In the dry summer months, the mosses go into a kind of dormancy, becoming drier and drabber as the season progresses. Winter, when the rains bring moisture and nutrients, is when the mosses explode silently with growth, putting out new fronds and spore-bearing stalks in brilliant abundance.

Seeking a spiritual life consists of finding and adhering to a moral code

that provides a personal and communal sense of right and wrong. Humans draw those precepts from a wide variety of sources, creating icons or symbols to represent our sense of these things. Surprisingly often, these symbols relate to trees or patches of forest, often ones encountered in childhood. I have my own memories of special trees, which have held me through difficult times. The maple tree that stood outside my childhood home and tapped companionably on my bedroom window kept me company on scary, windy nights, assuring me there was something strong and solid out there in the dark; it kept me from feeling alone and connected me to the world of nature and life that existed outside my little room. Even if you don't have such a tree of your own yet, David Wagoner's poem "Lost" assures you that those trees are there, looking for you:

> Stand still. The trees ahead and bushes beside you
> Are not lost. Wherever you are is called Here,
> And you must treat it as a powerful stranger,
> Must ask permission to know it and be known.
> The forest breathes. Listen. It answers,
> I have made this place around you.
> If you leave it, you may come back again, saying Here.
> No two trees are the same to Raven.
> No two branches are the same to Wren.
> If what a tree or bush does is lost on you,
> You are surely lost. Stand still. The forest knows
> Where you are. You must let it find you.

Connections between trees and the spirit are as universal as tree form itself. Although some of the bitterest battles have been fought on religious grounds, the spirituality of trees may transcend differences that separate the world's faith traditions. The spiritual teachings of trees are universal: we should strive to connect the mundane with the heavenly, produce things that are useful to others, be rooted in our home place, accept the inevitable changes of life, live mindfully, be joyful. Opening up to something as simple and pleasurable as climbing a tree—or sitting silently beneath it—can make humans feel at home with the world, and with themselves.

Chapter Nine

MINDFULNESS

> Let me desire and wish well the life
> these trees may live when I
> no longer rise in the mornings
> to be pleased by the green of them
> shining, and their shadows on the ground,
> and the sound of the wind in them.
>
> —*Wendell Berry, "Planting Trees"*

I lie dying.

I can see it in my mind.

I am tied to a broad branch of my favorite fig tree high above the tropical rainforest floor at my study site in Costa Rica. My husband, Jack, gently tightens the straps a final time, kisses me again, and we say good-bye, recalling all the years and all the love between us. He sets his rappelling gear in place and slides down the rope to the forest floor. I hear the rustle of the leaves beneath his footsteps on the trail—pausing once, twice, then leaving me. When we were married in a giant ceiba tree in 1983, I asked Jack to do exactly this when I got old and death approached me. Now, after his descent, I hear nothing but the sound of one thousand thousand leaves speaking to me in the language that I have tried to learn in my life of climbing trees. In a day or so, I will slip away from life, and the elements that make up my body will join the nutrients of the branches, the moss, the canopy earthworms, the canopy birds, and onward into the