

Keynote Speech: The Ethnosphere and the Academy

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One of the intense pleasures of travel is the opportunity to live amongst those who have not forgotten the old ways, but still feel their past in the winds, touch it in stones polished by rain, taste it in the bitter leaves of plants. Just to know that these people and these experiences continue to exist is to remember the central revelation of anthropology: the idea that the world into which you were born does not exist in an *absolute* sense but is just one model of reality—the consequence of one particular set of intellectual and adaptive choices that your own ancestors made, however successfully, many generations ago. But whether it is the Penan nomads in the forests of Borneo, the Vodoun acolytes in Haiti, or the Tibetan monks at Potola in Lhasa, all of these people teach us that there are other ways of being, other ways of thinking, other ways of orienting yourself in the world. And that's an idea that, if you think about it, can only fill you with hope.

Together, the myriad cultures of the world make up an intellectual, spiritual, and social web of life that envelopes the planet and is as important to its well being as is the biological web-of-life that we know as the biosphere. You might think of this cultural web-of-life as being an **ethnosphere**. And you might define the ethnosphere as being the sum total of all the thoughts, dreams, ideals, myths, intuitions, and inspirations brought into being by the imagination since the dawn of consciousness. The ethnosphere is humanity's great legacy. It's a symbol of all that we've achieved and the promise of all that we *can* achieve as the wildly curious and adaptive species we are.

However, just as the biological web-of-life, the biosphere, is being severely eroded today with the loss of habitat and the concomitant loss of species of plants and animals, so too is the ethnosphere vanishing, but at a far greater rate. No biologist would dare suggest, for example that 50% of all species of life are morbid or on the brink of extinction, because that is simply not true. And yet that same apocalyptic scenario from the realm of biological diversity approaches what we know to be the most *optimistic* scenario in the realm of cultural diversity. The great indicator of that, of course, is language loss.

Now, a language isn't just a body of vocabulary or a set of grammatical rules. A language is a flash of the human spirit. It's a vehicle through which the soul of each particular culture comes into the world. Every language is an old growth forest of the mind, a watershed of thought, an ecosystem of spiritual and social possibilities. When I was born, there were 6,000 languages spoken on earth, but today fully half of those 6,000 languages are not being whispered into the ears of young children nor are they being taught to school children. Which means, effectively, that unless something changes, they are already dead.

There are many people who say, particularly in the West, “Well, wouldn’t the world be a better place if we all spoke one language. Wouldn’t communication be facilitated? Wouldn’t it be easier for us to get along?” My response to that query is always to say, “What a brilliant idea. But let’s make that language Inuktitut. Let’s make it Quinault. Let’s make it Ojibwa. Let’s make it Tibetan. Let’s make it Kasake. Let’s make it Pomo.” And suddenly you begin to see, if you’re a native speaker of English, what it would be like to be enveloped in silence—to have no means to pass on the wisdom of your ancestors or to anticipate the promise of your descendants. And yet that is the plight of somebody somewhere on earth roughly every fourth night, because on average every two weeks some elder dies and carries with him or her into the grave the last syllables of an ancient tongue.

What exactly is at stake, and what is being lost, and what do I mean by different ways of being? I visited a Tibetan monastery that is perched like a swallow’s nest in the mountains of the Himalayas just across the Nepalese border. It is a repository of the Tibetan Buddhist knowledge and traditions that were shattered in the wake of the Chinese invasion of Tibet in the 1950s. I was lucky enough to spend a month in this monastery, surrounded by the baroque ritual of a 2,000-year-old times of the mind. By complete chance, a month before my arrival, another American had visited the monastery. I, naturally, had to walk to reach the monastery, but this man, Bill Gate’s father, had been flown in by helicopter. He had walked into that same prayer hall where I had been mesmerized for a month, taken one look at those monks in the midst of the ritual prayers, then spun on his heel, walked out, and remarked to my anthropological colleague who was acting as his tour guide, “What a waste of a human life.”

Who is *he*, who simply was lucky enough to have sired a very wealthy and smart kid, to cast such aspersions on this extraordinary science of the mind that is Tibetan Buddhism? We have this extraordinary conceit in the West that while we’ve been hard at work in the creation of technological wizardry and innovation, somehow the other cultures of the world have been intellectually idle. Nothing could be further from the truth. Nor is this difference due to some sort of inherent Western superiority. We now know to be true *biologically* what we’ve always dreamed to be true *philosophically*, and that is that we are all brothers and sisters. We are all, by definition, cut from the same genetic cloth. That means every single human society and culture, by definition, shares the same raw mental acuity, the same intellectual capacity. And whether that raw genius is placed in the service of technological wizardry or unraveling the complex threads of memory inherent in a myth is simply a matter of choice and cultural orientation.

What do I mean by different ways of being, different ways of thinking? When I decided to speak about different ways of being, there were too many choices. I could have, for example, spoken about the Mazatec in Mexico, who mimic the intonation of their tonal language with whistles to send complex messages across the vast reaches of their mountain homeland. It’s like a vocabulary based on the wind. I could have spoken about the Polynesian seafarers who could sense the presence of a distant atoll of islands beyond the horizon, even though those islands were not visible to the naked eye, simply by watching and measuring the reverberation of waves on the prow of their outrigger canoes. I could have spoken about the Naxi shamans of Yunnan who carve

mystical tales into rock.

But I decided to begin in the place that first captured my imagination—the northwest Amazon of Colombia and the people called the Barasana, a people of the Anaconda. A people who mythologically traveled up the Milk River from the east in the stomach of the sacred serpents only to be regurgitated onto the various effluences of the northwest Amazon. A people who have lived so closely to that forest that cognitively they do not distinguish the color blue from the color green, because the canopy of the forest is equated to the canopy of the heavens. A people with a rather remarkable marriage rule that dictates they must marry somebody who speaks a different language.

At any one long house of the northwest Amazon of any of the Barasana people, you will hear seven or eight languages spoken but you never hear a child practicing a foreign tongue. They simply sit and listen to their aunts, listen to their grandparents, listen to their fathers, and one day begin to speak. The explanation for this, in a scientific sense, is rooted in genetics—all these people settled along the rivers in the remote reaches of the northwest Amazon—and because, mythologically, they believe they are all descendants of the people brought there by the same primordial sacred serpents, who carried them up the Milk River and then themselves turned into the tributary rivers feeding into the greater Milk River where each group with its own language settled. Therefore, all those who speak one language are defined as being relatives or kin, and therefore, to marry within your own language group is to commit incest. Of course, the useful aspect of that adaptation is that it obliges you to seek a bride from another group, outside of your immediate gene pool. And since brides go to live with the husband's family, any given household may have a variety of different languages being spoken.

But if we go across the northwest Amazon, we reach another society that I spent a great amount of time with and was captivated by. These are the legendary Waorani. Part of what made the Waorani fascinating was they were first peaceably contacted in 1958. A year earlier, in 1957, five missionaries attempted contact and made the mistake of dropping from the air 8x10 glossy photographs of themselves in what we would describe as friendly postures, but forgetting that these people of the rain forest had never seen anything two-dimensional in their lives. The Waorani picked up the photographs from the forest floor, looked behind the face to try to find the forms of the figure, found nothing, and concluded that these were calling cards from the devil. And when the five missionaries landed on a sandbank on the Rio Curary and approached, the Waorani promptly speared them to death.

But the Waorani didn't just spear outsiders. They speared each other. We traced genealogies back five generations and found only three cases of what we would call "natural death." And when we pursued them a little bit, they admitted that one of the fellows had taken so long that he "died becoming old." That is, they got tired of waiting for him to die, so they speared him and threw his body in the river. In fact, 54% of the male mortality (and 40% of the female) in those five generations was due to the Waorani spearing each other. We also found that they had the highest rate of poisonous snake exposure of any human population. Ninety-five percent of adult men had been bitten by a venomous snake, half of them more than once. At the same time they had a

pertinacious knowledge of the forest that was astonishing. They are hunters who can smell animal urine at forty paces and recognize which species of life had left it behind. That same acuity gave rise to an extraordinary knowledge of plants—in particular, curare, an arrow or dart poison that revolutionized modern medicine when it was introduced as a muscle relaxant in the 1940s. Curare acts as a neuromuscular blocking agent that causes gradual paralysis.

This attention to the natural realm is drawn from the same raw potential that allows us to place men on the moon. It also gave rise to the knowledge of the so-called hallucinogenic plants. When I was first sent to the Amazon by my professor at Harvard, the legendary explorer Richard Evan Schultes, he told me to always remember the adage of peristalsis. The difference between a poison, a narcotic, hallucinogens, and a medicine is simply dosage. He drew us into the realm of the shamanistic art of healing and, of course, to understand the role these poisonous and hallucinogenic plants played in Amazonian culture, or in any culture for that matter, you must understand something about the shamanistic art of healing. For example, although young men are responsible for preparing the curare, it is the Jaguar Shaman who empowers the flying death.

We in the West think that people like Shirley McLain have a rather weird notion of a shaman as a sort of benign grandfather figure with feathers and bells who tells stories. I've been with an awful lot of shamans over the past thirty years and I've never met one who wasn't a little psychotic. That's their job. They're the ones who go into the mystic waters the rest of us would drown in. They're the ones who enter the spaces that most human beings don't even want to know exist. And, of course, part of that journey is quintessentially an act of medical and magical rescue.

To understand shamanic feeling you must understand that the shaman treats disease in a very different way from the way we do in the West. Disease is not the fine and traditional culture that many of you well know as the presence or absence of pathogens alone. Traditional cultures ask a profound question: "We know the pathogens are there, but *why* do they strike us when they do?" By contrast, health is defined in explicitly positive terms as a state of balance when the spiritual and physical components find their proper rest. Therefore, diseases can be treated at two very different levels. First, disease can be treated symptomatically, much as we do in conventional Western medicine. Where we use a medicinal *drug* they use medicinal *plants*, many of which are pharmacologically active and indeed the source of the major medicines in our own pharmacopeia.

The shamanic treatment of disease is seen as somewhat less mundane, because the real destination of the healer is the metaphysical realm. And to get there in order to undertake the work of rescue, the shaman must invoke some technique of ecstasy to reach those metaphysical realms where he or she can work their deed of medical/magical/mystical rescue. That accounts for the use of these curious hallucinogenic plants. Of the 130 hallucinogenic plants known to nature, 95% are found in the Americas and Siberia. Not because the forests of equatorial West Africa or southeast Asia hold none of these dynamic compounds. Quite to the contrary. Rather, the answer is because the use (or non-use) of these plants is firmly rooted in their respective cultures.

The Yanomami use a curious powder that they call the semen of the sun. To have this stuff blown up your nose is rather like being shot out of a rifle barrel lined with baroque paintings and landing on a sea of electricity. It creates not the *distortion* of reality, but the *illusion* of reality, because it has two very powerful tryptamines.

Indeed, I used to argue with Professor Schultes (who sparked the psychedelic era with his discovery of the so-called “magic mushrooms” in Mexico in 1938) that you really couldn’t consider these botanicals to be “hallucinogenic,” because by the time you’re under the influence, there is no one home anymore to experience the hallucination! But one of the reasons that we study the use of these plants is not simply because of their dazzling pharmacological effects, but rather what they can tell us about a different way of knowing.

Ayahuasca is the most important of all the plants of the shaman’s repertoire in the northwest Amazon. But ayahuasca is not really a plant. It’s a preparation. It’s a combination of plants. The Yanomami shamans prepare it like snuff and blow it up their noses. That’s because the tryptamines in the snuff, which are very closely related to brain serotonin, cannot be taken orally by the human body, because they are denatured by an enzyme found naturally in the human gut called monoamine oxidase (MAO). They can only be taken orally if taken in conjunction with something that inhibits MAOs. Now it turns out that ayahuasca is basically the combination of two plants. On the one hand, there is this woody liana and on the other is a nondescript shrub in the coffee family. The liana is full of chemicals called beta-carbolines, which are themselves mildly psychotropic. They bring on that kind of blue veil of mist over your peripheral vision. But clinically they are MAO inhibitors of the precise sort necessary to potentiate the tryptamines found in the shrub. So the result is a biochemical version of a whole being greater than the sum of the parts.

But you have to ask the key question: How, in a flora of 80,000 species of plants, did the indigenous people discover this means to take two completely morphologically and botanically unrelated plants that, when combined in this remarkable way, had this dazzling hallucinogenic effect? Well, if you ask the world of science, the answer is trial and error, but if you run a statistical probability analysis that “trial and error” is quickly exposed as a completely meaningless euphemism that basically says we don’t have any idea how they managed to do this. You ask the indigenous people and they look at you like, “I thought you knew something about plants.” And you say, “Yes, I’ve got a Ph.D. but clearly I know nothing about botany.” They say the plants teach us. Well what does that mean?

It turns out that the Ingano, who are adjacent to the Siona, recognize seven varieties of ayahuasca, which to my taxonomic eyes all appear to be the same species. Yet they consistently differentiate them at some distances in the forest. How did they create this system of taxonomy of classification? When I asked them that, they again looked at me like I was the fool that I was. And they said “We clearly know nothing.” So what’s the explanation? They said, “You take each one on the night of a full moon and it sings to you in a different key.” Now that’s not going to get you a Ph.D. at Penn State, or at Harvard for that matter, but it’s a hell of a lot more interesting than counting flower parts. But the question remains: what is that singing? Do the plants each really sing in a different key? We don’t know. But it indicates that there’s a

different realm of knowledge at work, with a deeper realm of meaning.

I was a very fortunate young undergraduate. In 1973 I fell into the orbit of that remarkable man Richard Evan Schultes, who was the director of the Botanical Museum at Harvard. I mentioned that he had sparked the psychedelic era, but I didn't mention that he was a curious choice to become a '60s icon, because his politics were so conservative. He didn't vote for the Republican party—he professed not to believe in the American revolution, and always voted for Her Majesty Queen Elizabeth II. When I first went to him, it was said of him that he was such an Anglophile that the only way for him to go native would be for him to go to London. At the age of 18 I rapped on his door and I told him I was from British Columbia, that I saved up money in a logging camp, and that I wanted to go to the Amazon like he had done and collect plants.

One of the reasons I love the United States is because in Canada a professor would have thrown you out of his room or asked for credentials or who your father was or how much money you had. This extraordinary man, whom Prince Phillip once called the “father of ethnobotany,” a man for whom mountains and national parks in South America were named, simply looked across the mounds of specimens and through his antiquated bifocals, and said, “Well, son, when do you want to go?” Two weeks later I was in the Amazon, where I stayed for fifteen months.

Just before I left he told me that I really ought to look up a man in Colombia, his protege, Timothy Plowman. He had done the impossible for Timothy. He had arranged the dream academic grant of the 1970s: \$250,000 from the U.S. Department of Agriculture to study a plant known to the Inca as the divine leaf of immortality—coca, the notorious source of cocaine. It was an astonishing assignment, because, even though efforts to eradicate the traditional coca fields had been underway for more than fifty years (long before there was a cocaine problem in Europe or in America), these efforts never had anything to do with the pharmacology of cocaine and everything to do with the cultural identity of those who chose to revere the plant. At that time, in the mid 1970s, nothing was known of this plant. Nobody knew how many species yielded the drugs. Nobody knew its point of origin. Nobody had ever made a nutritional study of coca, even though it was something that was consumed everyday by millions of South American people. And so, on this journey made possible by the great professor and infused with his spirit, we spent two years traveling everywhere in South America seeking some answers.

We knew that coca had been revered as no other plant. At the time of the Inca you could not approach a holy shrine if you did not have coca in your mouth. Distances were measured not in miles or kilometers but in coca chews. If you didn't have coca in your mouth at the time of your death, your journey to the afterworld was not assured. Unable to cultivate it at the elevation of the imperial capital of Cuzco, the Incan people replicated it in fields of gold and silver that colored the landscape. And we knew that even today no gesture can occur in the Andes that is not mitigated or mediated by this curious plant. No field can be planted or harvested, no elder led into the realm of the dead, no child brought into the realm of the living. Even a divination of the future can be read into the venation of the back of the leaf, but it's a skill that can only be possessed by somebody who has successfully survived a lightning strike.

So we did something that absolutely horrified our backers at the U.S.

Government. We made the first nutritional study of coca, and what we found was rather astonishing. Yes, it had a small amount of cocaine hydrochloride in it, half of one percent dry weight—roughly analogous to the amount of caffeine in a coffee bean (notice the irony that every drug abuse conference, every narc and DEA agent bolts to the coffee pot at 10 o'clock in the morning). But in addition to the small amount of the alkaloid that was absorbed benignly through the mucus membranes of the mouth, coca is chock full of vitamins. It has enzymes in it that enhance the body's ability to digest carbohydrates at high elevation, which made it perfect for the potato diet. It had more calcium in it than any plant ever assayed by the USDA, which made it perfect for a diet that traditionally lacked a milk product. And, therefore, by one simple elegant nutritional assay, we put into stark profile the herculean efforts that are underway to this day to eradicate nutritional fields filled with a plant that has been used with no evidence of toxicity, let alone addiction, for more than 2,000 years by the pre-Colombian people of the Amazon and the Andes.

I spoke initially of this idea of "different ways of being." The first indigenous society outside of my own homeland of Canada that I ever lived with was in Colombia. They are the descendants and survivors of El Dorado; on a blood-stained continent, the only people never fully conquered by the Spanish. Descendants of an ancient civilization that once carpeted the Caribbean coastal plain of Colombia. These people retreated into inaccessible volcanic mountains that soar to 18,000 feet above the Caribbean coastal plains. There are now two societies, the Ika and the Kogi, both related, at least in mythology, as children of the same primordial mother. To this day they are ruled by a ritual priesthood. But the training for the priesthood is rather astonishing. The young acolytes are taken from their families at the age of two or three and sequestered in sacred huts or sacred caves at the base of the mountain slope that is seen as a personification of the Great Mother. There they remain for eighteen years in a shadowy world of darkness. The two nine-year periods are chosen deliberately to mimic the nine months of gestation they spent in their natural mother's womb. Now they are metaphorically in the womb of the Great Mother. And for this entire time the world only exists as an abstraction, as they are encultured in the valleys of the society. This is done to maintain the proposition that through their prayers and their prayers alone comes the cosmic or ecological balance. At the end of this extraordinary initiation, the acolyte is taken out before sunrise and for the first time in his life he sees the full wonder of the rising sun. And as the sun cracks the horizon, bathing the entire mystic with the sacred luminosity of the morning, suddenly everything learned in the abstract becomes a firm and stunning glory, and the priest gestures to the horizon as if to say, "You see, it is as I've told you all these years."

This brings up a very important point about the relationship of different cultures in the environment, one that we tend to in the West when we try to understand the relationship of the indigenous people and landscape. Even to this day we continue to invoke the old saw about the simple life of the noble savage with its implication that their needs are more primitive and that somehow, by definition, these people are genetically different from us. At the same time, we turn to Henry David Thoreau and suggest that somehow indigenous people are more noble minded and contemplative than we are. Neither could be farther from the truth. Indigenous people

are neither weakened by nostalgia nor are they sentimental. But they have nevertheless forged through time and ritual a traditional mystic union with the earth. It's not an idea of being directly close to it in some self-conscious way but on a far more subtle intuitive level. And that is the idea that the earth itself only exists because it is sustained by human imagination. Now what does this really mean?

The young kid in the high Andes who believes that the mountain is a nurturing spirit that will direct his destiny would be a profoundly different human being from a kid from Pennsylvania raised to believe that a mountain is a pile of coal ready to be mined. Is a mountain the domain of the spirit? Is it raw earth? That's not the operative question. The interesting observation in the cross-cultural context is how the belief system *changes* the human being and mediates that relationship to a national role.

I was raised in the rain forest of British Columbia to believe that the forests existed to be cut. Indeed, our entire etiology of scientific forestry was predicated on the assumption that the old forests would all be eliminated and replaced with tree plantations. That made me a very different human being from my friends amongst the Kwakwaka'wakw, who believed that these forests were the abode of Huxwhukw and the Crooked Beak of Heaven, cannibal spirits that dwell at the north end of the world—spirits that would have to be embraced during certain initiations.

Where the difference lies is in how the belief systems came to the human beings. Take, as a final example, the Aboriginal peoples of Australia. When the Europeans first washed up on that distant shore, they were not prepared for the subtlety of the Aboriginal mind. So they asked the questions, "Why haven't these people made a cult of progress? Why haven't they tried in 60,000 years to improve on creation." And the Europeans concluded it was because they were stupid. And, indeed, as late as 1902 it was still debated in houses of the Australian Parliament whether Aboriginal people were even human at all. But, in fact, if you understand the subtleties of the Aboriginal mind you will discover that they believe in two parallel universes—two completely different realms. There is the phenomenological realm in which a table exists, this room exists. But there is also the realm in which this table in this room only exists because it's being focused through my imagination. When you go on the walkabout as a young Aboriginal child, you mimic the trajectories of the primordial ancestors in walking the Songlines. When you walk those trajectories, those sacred itineraries of the time when the primordial Ancestors walked and sang, and the song sang the world into existence, you were involved both in an act of remembrance but also in an act of creation. Because the world at your feet both exists and yet, by definition, is waiting to be born. We tried to describe this other universe as the Dreaming or Dreamtime, but that turns out to be a very crude and misguided simile. That universe is not an abstraction. It's literally another world. And if you believe that the world both exists but yet is still waiting to be born, how can you possibly embrace the cult of progress? How can you begin to think of improving on the landscape that hasn't yet been created? It would be preposterous intellectually. And this idea of looking into different ways of being for different explanations is really what drives my work today.

I'll give you one example, which is rather extraordinary. I've lived for many many years in a small village outside of Cuzco called Chinchero. I've been going back there for thirty years. It was built on the ruins of the summer palace of Topa Inca

Yupanqui, the second of the great Inca rulers. This is an extraordinarily beautiful landscape, because obviously these men had their choice of real estate. Chinchero is divided into three communities, which are further divided into hamlets. Once each year a young man is selected from each hamlet and designated the waylaka—a woman who does not do her duties in the home—for his community. The waylaka is dressed from head to toe as a woman. And then, holding aloft a white banner, he must follow the boundaries of his hamlet at a run, followed by every able-bodied man. But it's not your ordinary run. You start off across the plaza of the community at a full run, then you run 1,000 feet down to the base of Anyakillqa mountain, then you run up 3,000 feet to a summit spur, and then you drop 3,000 down the other side, only to run uphill 3,000 feet more, and continue on until you have completed 24 kilometers like this over the course of a very long day. At every boundary marker the waylaka must stop and dance—an action that serves as a vortex to draw to the mountain peaks the energy of the women left in the village below. The entire perimeter is marked by holy mounds of earth where prayers are offered to the gods, and where, of course, the men pause to sing and chant and pray.

The whole purpose of this extraordinary day is to reinforce the solidarity of the group and to ritually reclaim the land for their community. By the end of the day you emerge from the mountains less as human beings than as spirit beings who have participated in a ritual that defines your sense of place, your sense of belonging, your connection to the landscape. I became, at the age of 48 not only the only outsider ever to participate in this run but the oldest person ever to take part in it, and I can tell you I only got through the day by chewing more coca leaves in one day than anyone has chewed in the 2000-year history of the plant!

I want to stress that anthropologists and anthropology in general are sometimes accused of embracing the extreme relativity of things, as if every human activity can be defended—just for example, the conclusion that the horrendous acts of the Nazis could be defended because they had an ethnicity, a language, and ideology. No anthropologist would hesitate to condemn the egregious acts of the Nazis, but the anthropological lens *does* come usefully into focus when it goes to those areas of cultural endeavor about which the outsider knows nothing, but about which they persist invoking gestures and words and language of condemnation. Let me offer a prime example.

In the early 1980s I received a curious assignment from Professor Schultes. A very prominent physician in Haiti had documented the first medically verifiable instance of a zombification. The physicians involved obviously did not believe in magic, but there could be a pharmacologic preparation that was involved, a folk preparation said to induce a state of apparent death that could even fool Western-trained medical doctors. My assignment was to go to Haiti and infiltrate the secret society to secure the formula for the drug and to try to make sense of its use. It was an assignment that I thought would last a couple weeks: it consumed four years of my life and it became my dissertation and my first book. But the very first thing I had to do was expose my own misconceptions about this extraordinary realm.

You know it's so interesting. If I asked you to name the great religions of the world what would you say? Christianity, Buddhism, Judaism, Hinduism. There's always one continent left out: sub-Saharan Africa. The tacit assumption that African

people have no organized religion is, of course, an absurd idea. It possesses Vodoun. Vodoun is a Fon word from Dahomey meaning simply “spirit” or “god.” It is not some black magic cult. On the contrary, Vodoun encompasses a complex metaphysical worldview. It’s simply the distillation of profound religious ideas that came over from the ancient continent during the tragic diaspora of the slavery era and was sown in the fertile soil of the new world. In many ways Vodoun is a quintessentially democratic religion, because the adherent not only believes in the divine, he or she has direct access to the divine. And thus throughout Equatorial West Africa, Haiti, and in parts of Brazil, believers walk in and out of the spirit realm with an ease and assurance that is astonishing to the ethnographic observer. The Haitians used to always say to me, “You white people go to church to speak about God. We dance in the temples and become God.”

The essence of this African faith lies in a dynamic, reciprocal relationship between the living and the dead, whereby the living defer to and honor their ancestors who give birth to the gods, while the dead must be made to serve the living. To serve the living they must become manifest; they must be invoked from beneath the Great Water to reinhabit momentarily and temporarily the body of the human being. This is the great act of spiritual epiphany in the African reality—spirit possession. It is not some form of psychological pathology as has often been described in the Western literature, but is a sign of divine growth whereby the acolytes taken by the spirit actually become the god. It’s an extraordinary thing to witness.

Of course, in the same sense that you would speak of a Buddhist society or a Judo-Christian society, you can speak of a Vodoun society. In that world you have a system of education, a system of health and healing, notions of the well being of the body and the spirit. But the most extraordinary thing to my mind, as an outsider, is this moment of spirit possession. I lived intermittently in South America for eight years, working for the most part with medicinal botany and the shamanic tradition. I never had available to me in all of that time what was available to me within twenty-four hours of arriving in Haiti. And that was a window truly wide open to the mystic, when someone is taken by the spirit.

The idea is straightforward. The living gives birth to the dead. The dead go beneath the Great Water. In time they become associated nominally with a particular ancestor but also with a vast ancestral pool of energy out of which emerge the archetypes. And the archetypes are the very gods of the pantheon. But in this quintessential democratic phase the dead must be made to serve the living sufficiently to become manifest. You see these extraordinary celebrations, which are very civic and communal in nature: the celebration of the divine in the presence of the living. And you see the grace with which people protect the individuals who have been taken by the spirit, both their physical well being and their social well being. Although, of course, when you are possessed by the gods you *are* the god, and how can a spirit be harmed? This in turn leads to extraordinarily powerful gestures in many cultures, such as self-mutilation to show the power of their faith. But perhaps more profoundly in Haiti, Vodoun acolytes in the state of trance handle burning embers with impunity—a rather extraordinary example of the mind’s ability to affect the body when it is unleashed in a state of extreme excitement.

So I think the different realities then, in some sense, take us into a whole other realm of the notion of what it means to be of a different place, what it means to experience all the ramifications of a culture made for a different human being. This really brings us to the discouraging part of this talk, and that is the fact that this century will not be remembered for its wars a hundred years hence or for its technological innovations. It's going to be remembered as the era in which we stood by and either actively endorsed or passively accepted the massive destruction of cultural diversity on the planet.

All cultures are always changing. They are always dancing with new ideas and possibilities. We must stress the problem is not change. Nor is the problem technology per se. The Iroquois warriors did not stop being Iroquois when they gave up the bow and arrow for the rifle, anymore than the American farmer stopped being an American when he gave up the horse and buggy for the automobile. It is neither change nor technology that threatens the integrity of the ethnosphere, it is power of cultural domination. We have this notion that we have these somehow delicate, fragile societies that are destined to fade away through some natural law. As if they made a failed attempt to be us and so deserved to vanish for their failure. Nothing could be farther from the truth. In every instance these are dynamic, living people being driven out of existence by identifiable external forces beyond their capacity to adapt. And this is actually an optimistic observation. Because it suggests that if human beings are the agents of cultural destruction, we can also be the facilitators of culture survival.

The forces of negativity are myriad and wide ranging, whether intentionally or unintentionally applied. For example, take the illnesses that decimated the indigenous populations of the New World. Actually, that's a terrible use of the term "decimate," because in Latin the word decimate means to kill one in ten, whereas within three generations of contact, nine out of ten Native Americans, living from the Arctic to Tierra del Fuego, had succumbed to a battery of European diseases— 90% of the indigenous population of the Western hemisphere was swept away.

When I wrote my first book, *To Circle the Rainbow*, it was made into one of the worst Hollywood movies in history. I tried to escape the hysteria and the media by going to Borneo. I had always wanted to live in a place that was, as I put it, "left with the innocence of birth." I wanted to live with a nomadic people of the rain forest of Southeast Asia, because I love living with nomads. They are an image of what we all once were. It's so fascinating to recall that the agricultural revolution was only ten thousand years ago. The poetry of the shaman became the prose of the priesthood, and we developed notions of hierarchy—surplus specialization. But for most of human history we were wanderers on a pristine planet. Nomadic societies are profoundly different. Thus I chose to go to Borneo and I went up the Baram River, following it from where it drained from the northern shores of Borneo into the South China Sea.

In a nomadic society, sharing becomes an involuntary reflex, because you never know who will be the next to bring the food to the table. I remember once giving a cigarette to an old woman and watching how she tore it apart to individually separate the strands of tobacco in order to distribute them equitably to every house of the encampment, rendering the product useless but honoring her obligations to share. In a nomadic society like this there is no intention to acquire material possessions, because

everything must be carried on your back. So think about it. What is the measure of wealth in such a place? Well, it's not objects. It is the strength of social relations amongst people. Because if those relationships shatter, then everybody suffers. So you never see any direct confrontation in the homeland of the Penan where criticism is severely tabooed because, of course, if we're part of a hunting group and you and I don't get along, and we fracture the group by our behavior, it means by definition that all of our children will have a 50% smaller chance to thrive or indeed survive.

One of the experiments I always wanted to do at the National Geographic would be to hook up a young Penan girl of 12 with a young girl from Beverly Hills of the same age, and simply ask them two questions. The first would be *Name me everything you own*. Well, the kid from Borneo would take about three seconds to get to everything her family owns. Indeed, everything her tribe owns, because they own nothing. They make everything from the forest. The kid from Beverly Hills would take about six months to get through her bedroom, let alone her house. But let's ask the second question: *How many hours a day do you spend with your mother and father?* The kid from Borneo wouldn't know what that question meant, because she spends every day *all day* with her mother and her grandmother. That's how she learns to be a human being. The kid from Beverly Hills would say, "Hours with my father? I think I saw him last Tuesday when he went up to Burbank to cut that deal with Eisner." Cultural choices have different outcomes.

I went to the Penan because I was seeking a place with the innocence of birth, but by the time I got there in 1988, to my horror I found out that the predominant sound in the forest of Borneo was now the sound of machinery. There was virtually no place in the Penan homeland that had not been impacted by a sudden explosion of industrial logging. During the 1980s you heard so much about the demise of the Amazon Rain Forest. The Amazon Forest is the size of the continental United States. In 1985 Brazil produced less than 3% of the tropical timber exports of the world; Malaysia produced 60%, mostly from the East Malaysian states, which comprise much of the homeland of the Penan. And so in a single generation the Penan saw their women reduced to servitude and prostitution in the logging camps. They saw their once-clean streams reduced to muddy sludge that seemed to be carrying half of the country away to the South China Sea where the Japanese freighters hung on the horizon ready to fill their holds with raw logs ripped from the heart of this paradise. Children suddenly were in forced settlement camps suffering from diseases not known in the wild. The elders asked themselves what has happened to our world? What if it turns over? And in what began as a quixotic gesture, blow pipes against bulldozers, in 1988 the Penan stood up and blockaded their logging road. It was an electrifying gesture but, of course, it was no match for the powers of the Malaysian state. And when I went back in 1998 on assignment for the National Geographic Society, I found myself living among some of the last free families of nomadic Penan living in the forest of Borneo.

But it is technology then that becomes a symbol of something that's going on all around the world and that is not enough. Sometimes the culprit is ideology. Last April I took a picture of a Buddhist nun in Cambodia who had had her hands and feet severed by the Communists for the crime of pursuing her religious faith. If we slip for a

moment to the mountains of Tibet, where I'm spending a great deal of time lately, you'll see the pain of civilization turn to thunder. Of course, Tibet by any ethnic, cultural, geographical, religious definition is a world apart, sitting in the crown of central Asia. But since the Chinese invasion of 1959, presaged by Mao Zedong's haunting words that he whispered to his Holiness the Dalai Lama in 1954 when the Dalai Lama traveled to Beijing to meet with Mao, "Religion is poison. It neglects material progress," the cadre destroyed much of the infrastructure of Tibet. Approximately 1.2 million Tibetans were killed for their religious beliefs; 6,000 temples, monasteries, and sacred monuments were torn apart brick by brick during the great Cultural Revolution. You have to ask yourself, how would we feel if a power inordinately more powerful than ourselves entered the United States, declared our religious beliefs to be fraudulent, and then destroyed all of our temples, mosques, and churches? This is what happened in Tibet.

I once traveled 6,000 miles overland to southeastern Tibet to Potola Palace with a Tibetan colleague. It was only when we got there that he told me the story of his family. His mother was incarcerated for the crime of being wealthy. His father was murdered. His uncle fled with his Holiness the Dalai Lama, and my colleague as an infant was smuggled into the prison, because his mother missed him so much. He spent much of his youngest life hidden beneath her skirt tails in the darkness just so she would be able to mother him. His sister who had committed that grave deed was put into an education camp. During the great Cultural Revolution she inadvertently stepped on a Mao armband that had slipped off the sleeve of an adjacent worker and for that discretion she was given seven years of hard labor. And yet despite that kind of horrific history—and it's not a message that is anti-Chinese as much as anti-Chinese government and Communist cadre—the Tibetans' spirit still soars in a rather extraordinary way. Wherever you go in Tibet you see the Buddha is still revered and the breath of the dharma still turns the clock of time.

So this then really brings us to the fundamental question of any presentation like this. What kind of world do we want to live in? Do we want to live in kind of a monochromatic world of monotony or do we want to embrace a polychromatic world of diversity? Margaret Mead, the great anthropologist, said before she died that her greatest fear was that as we drifted toward a homogenous world culture not only would the entire imagination of humanity be progressively reduced to even more narrow modalities of thought, but that we would awake one day and not even remember what had been lost. It is so important to remember that our species has been around for hundreds of thousands of years. Modern industrial society, as we know it, is scarcely 300 years old. That shallow history doesn't suggest to me that we have all of the answers for all of the challenges that confront us as a species in the ensuing millennia. These other societies of the world are not failed attempts at modernity. They are unique manifestations of the human spirit.

We are famously ethnocentric in America, to the extent that we almost celebrate a certain cultural myopia. And if you turn the ecological lens on our society you'll see many wondrous things. The measure of the success of technological wizardry is undoubtedly to be found in the West. But let's look at our social structure for a second. We are a culture that reveres marriage but allows half of our marriages to end in

divorce. A culture that says it reveres its elders where only six percent of the American homes have grandparents living with grandchildren. A culture that says it loves its kids but embraces an obscene slogan, "24/7," implying total dedication to the workplace, and then wonders why the average American child by the age of 18 has spent two full years passively watching television. And you can add to that an economic system of extraction that, by any definition, compromises the integrity of the biosphere. We are many wondrous things, but the paragon of humanity's potential we most certainly are not.

If there's one thing that anthropology teaches, it is that culture is not decorative. Culture is not feathers and bells. Culture is the sum of rules and laws and ethical behaviors that we envelop ourselves with to keep the barbaric heart at bay. It is culture that allows us to make some sense out of our existence, to find order and meaning in a universe that may have neither. It is culture that allows us to reach for the better angels of our nature. And if you want to know what happens when you strip away culture you need only look at Liberia. You only have to look at al Qaeda. You only have to look at that prison in Iraq to see what a thin veneer "civilization" actually is. Anthropology teaches that culture is what makes sense. Culture is what creates order. When culture is lost, chaos emerges. And we forget that we ourselves are a culture and so we exploit our paradigm, whether it's a form of economic activity or whether it's democracy, we do so not as the absolute way of civilization, as we presume ourselves to be, but simply as one model of reality to deal with the problems around the world.

One of the key problems is that individuals who are either drawn to the allure of the moderns, or are *forced* toward the realm of the moderns, are everywhere turning their backs on their past, hoping perhaps to acquire some aspect of the affluence that we enjoy. But instead, they find themselves turning their backs on the past only to get onto the bottom rung of an economic ladder that goes nowhere. And one thing that anthropology teaches is that if people are bereft of culture, strange things emerge. We forget in the West the numbing affect of our affluence. The American people spend more money maintaining their lawns than India collects in federal tax revenue. We effortlessly support a defense budget larger than the entire economy of Australia. So for the entire world's population to acquire our level of affluence would require the resources, according to E. O. Wilson, of the entire planet Earth. That's not about to happen. Everywhere we look people are buying into what can be a false promise and the end result too often is disappointment, even if the criteria appear to have some value.

Take literacy, for example. How can literacy be bad? In the desert in northern Kenya, young nomadic children are sent off to parochial school to acquire enough literacy so they can participate in the cash economy as a survival strategy against the periodic drought that wracks their families in the Kaisut Desert. There is nothing wrong with literacy, but the problem is they go into school as a nomad and as they acquire a proficiency in literacy they're also acculturated to the contempt felt for their fathers and for the past. So they go into school as a nomad. They graduate as a clerk and they enter an economy in modern Kenya that has a 80 percent unemployment rate for high school graduates. They can't go back. But what does it mean to go forward? It means to join a sea of misery that threatens to envelop Nairobi and eventually all the

cities of the third world. That demographic trend is something to be paid attention to.

Lima, Peru, in 1940 had a population of 400,000. There are twelve million people living there today. For the vast majority of the world's population who are drawn to the allure of the modern, the result is only disappointment and misery and despair. That said, there are amazing things happening, like this conference. Amazing things going on around the world.

My own homeland is Canada. We weren't always kind to the Indians. When the British first came to those cold shores they took the Inuit to be savages. The Indians took the British to be gods. Both were wrong, but one did more to honor the human race. And what the British couldn't understand is that there is no better measure of genius than the ability to adapt to that harsh Arctic environment with a technology that was limited to what you could carve from bone, stone, and the small bits of wood that floated in from the sea. The Indians didn't fear the cold. They took advantage of it: three Arctic char could be laid in a row and wrapped in the skin of a caribou hide that then would be greased with the content of the caribou's stomach and coated with a thin film of ice to form a sled runner. When the British mimicked the ways of the Inuit they achieved great feats of exploration. Mostly they failed to do so, because they insisted on bringing their environment with them rather than adapting to another.

When Lloyd Franklin's men were found dead at Starvation Cove on the Adelaide Peninsula, the young sailors were discovered frozen stiff within the leather traces of their sled. They were dragging behind them a sled that had been made in Manchester, England, of oak and iron that weighed 650 pounds. On top of it was a dory from their ship that weighed 800 pounds. Inside the dory were all the accouterments of a British naval officer's dinner service of silver plate and even a copy of the novel *The Vicar of Wakefield*. This they somehow expected to drag through the immense boreal forests of Canadian north, hoping to bump into a Hudson Bay post and their salvation. Well, of course, they suffered a terrible death. But the Inuit lived lightly on the land.

I visited a family who told me a story that was so crazy that I thought they were pulling my leg. I thought it was incredible, until I later confirmed it in the literature. During the 1950s, in a dark period of Canadian history, the government forced the Inuit into settlements. This family's grandfather categorically refused to go. The family took away all of his weapons and all his tools, hoping that would force him into the settlement. Did it? No. In the middle of an Arctic night with a blizzard blowing, the old man slipped out of the igloo into the darkness and simply pulled down his caribou hide and seal skin trousers and defecated into his hand. As the feces began to freeze he shaped it in the form of a blade. As the shit took shape he put a spray of saliva along one leading edge to create a sharp edge. When the implement was finally created from the cold, he used it to kill a dog. He skinned the dog and used the skin of the dog to improvise a harness and used the rib cage of the dead dog to improvise the sled, harnessed an adjacent dog, and then with shit-knife in belt disappeared over the ice flow. Now talk about getting by with nothing! This is an incredible symbol of redemption and hope of the Inuit people. A redemption and hope that they realized and was acknowledged by the Canadian government as of April 1999 when an area of land the size of Texas and California combined was given back to the total administrative controls of 26,000 Inuit. It's now a new homeland. Our newest territory in Canada.

Nunavut is a symbol of hope and redemption for the Inuit of Canada and indeed all over the world.

So in the end, the final message is that we need the dreams of the young Inuit boys, just like we need the dreams of the young Tibetan monks. For all of us and for all times they stand apart as symbols of the naked geography of hope. What do we do about it? Well, we never believed at the National Geographic that politicians will lead anywhere and polemics are never persuasive. But we do believe that story telling can change the world. Our monthly audience for *National Geographic Magazine* is 250 million people. Our website gets 30 million hits every month. Our magazines are translated into 29 languages. Our television is seen in 156 countries and, of course, our National Public Radio reports are heard by millions around the world. So what we're trying to do through our ethnosphere initiative is to take our audience to places of cultural wonder where the practices and beliefs are so inherently dazzling that you cannot but come away having embraced this revolution of anthropology that I first mentioned at the beginning of this talk. The world in which you were born does not exist as a master plan. It is just one reality. These other cultures are vital to the existence of humankind. They are unique expressions of the human heart, the human spirit, the human imagination.

Books by Wade Davis:

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1998, Wade Davis. Island Press

Rainforest; Ancient Realm of the Pacific Northwest

1998, Graham Osborne; text by Wade Davis. Greystone Books

The Serpent & The Rainbow; A Harvard Scientist's Astonishing Journey into the Secret Society of Haitian Voodoo, Zombies and Magic

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One River; Explorations and Discoveries on the Amazon Rain Forest

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Edited by Aperture. Foreword by Wade Davis

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