

A MANIFESTO OF RESIGNATION

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“The whole drama of history is enacted in a frame of meaning too large for human comprehension or management.”
--- Reinhold Niebuhr

PROLOGUE

Resignation carries passive and active connotations: accepting a perceived outcome; and ending one's involvement with a position or place. The first suggests a private assessment, perhaps with a bit of sadness, and the second a public act, perhaps with a bit of ritual. The passive connotation may also imply “giving up” to impending catastrophe (as in a natural disaster involving no sense of personal or collective human responsibility), or “giving in” to one's fate/destiny that often is perceived to be a judgment on behavior. In either case, the response may be despair and apathy, or it may produce a quickening of conscience—if not also of consciousness to our past and to where we are heading. And if the latter is one's response, then resignation can link positively with depth of experience and hence with meaning in life. Indeed, this is the popular connotation of resignation within Buddhism/Hinduism. Nor is a positive interpretation altogether lacking among the children of Abraham: Muslims, Jews, and Christians. The biblical anticipation of a final judgment of humans in the Book of Revelation combines resignation with anticipation of a second coming of Christ. And more to the point of this manifesto, the worldview of contemporary Mayas blends in efficacious manner their pre-contact Mayan connotation of resignation (more Eastern than Western) with the Christianity imposed by the Spanish. My involvement with Mayas in Guatemala for half a century is one of the reasons for writing this essay.

In choosing to title it “Resignation,” I intend no more than a soulful acceptance of our current planetary condition...coupled with realistic assessment of the risks this condition poses for our societies/cultures, if not for our survival as a species. Herein I share some of what I have learned from anthropology (including residence among Mayas) and from geography (through writing the biography of climate change pioneer, Gilbert White, “Living with Nature's Extremes”). In sharing the perspective thus acquired, I am less concerned to instruct than to invite from readers your collective discernment regarding the most efficacious attitude to adopt in response to what lies ahead.

What lies ahead is, of course, subject to interpretation of scientific findings. The interpretations herein include my own, and in this regard I admit to a personal agenda. I believe that there is less room for optimism in reducing the risks humanity confronts from global warming than I anticipate many readers of this essay will share. Semi-retired from academe and free of the constraints of employment therein, I have nothing to lose in calling attention to a tendency I perceive—among even the most learned of scientists—to accentuate the positive in assessing trends and options. I believe that they do so to lessen the risk of being accused of fear-mongering and inviting cynicism and apathy. Political correctness constrains within the scientific disciplines as in all other domains of public life. If I have anything distinctive to offer, it is the increasingly interdisciplinary perspective that my career serendipitously has

provided through mentoring at the feet of a half dozen seminal thinkers in the social and physical sciences and humanities. My study increasingly has focused on nature's extreme events, the hazards they pose for humans, and our adjustments thereto.

Interpretation of facts is influenced not only by their accuracy but by disposition: optimism/pessimism. A word, therefore, about my own. My father was the most theologically-committed of my mentors: a Quaker pastor influenced by Old Testament prophets (Jeremiah in particular). But he wisely did not encourage me to follow in his footsteps. Instead—perhaps from recognition of his inclination toward pessimistic and messianic assessments of our human condition (and rescue there-from)—he nudged me toward the social sciences. In particular he urged my reading about human and cultural evolution, comparative civilizations and religions—anthropology, in short, with its optimistic perspective on humanity's history of successfully (for the most part) addressing challenges and overcoming adversity. His counsel proved to be a blessing. Otherwise, the reality of the deepening risks that humanity and our earthly companions confront from climate change and global warming would long since have turned me into a raging cynic! As it has turned out, I consider myself to be a pretty cautious, hard-headed realist.

So, dear friends with whom I share this manifesto, please hear me out...with an end to sharing your own assessment on the topics addressed below—and where we go from here. The essay is personal and anecdotal, and accordingly I will appreciate discretion with regard to its sharing. It should not be quoted without permission. I invite your comparably candid response. In particular, I invite you to edit and comment in the margins of your copy and return it to me here in Guatemala or at 12500 Summit St., Kansas City, MO 64145 (and/or on-going dialogue via e-mail to robhinslaw@msn.com.) If you find the time to do this before mid-May, your comments will assist me in revising the essay this summer for possible publication. This is a lot to ask, I realize, and I thank you in advance!

ON RESIGNING FROM THE UNITED STATES

“This is a kind of good-bye we are saying,” sadly opined Christopher Robin on parting from Winnie-the-Pooh. And so it is with my decision to spend considerably less time henceforth in the United States, to live primarily in my adopted home of Tzununa, Guatemala: a conservative and very poor all-Mayan community on the northwestern end of Lake Atitlan. I came very close to making a similar move—but to Costa Rica (the Quaker-founded cloud forest community of Monteverde)—when turning 18 and faced with the prospect of prison for refusing to register for compulsory military service. I had applied for admission to Haverford College, explaining my quandary, only to receive in response an encouraging letter from the College's president, the afore-mentioned Gilbert White. He apprised me of the College's experience—as a Quaker institution—with helping conscientious objectors to continue their schooling while in prison (an experience I fortunately was spared after then enrolling at Haverford).

Nor am I the first in my family to emigrate to Guatemala. A step-grandmother, Ruth Smith, did the same almost a century ago as a Quaker missionary—living out her final three decades in rural Guatemala. As I imagine was the case for her, this has been an evolving realization of what I must do—if true to myself—involved push and pull factors from spending comparable time in both countries since initiating field

study among Mayas in the Midwestern highlands in 1963. In this manifesto I ponder the question, Why now—this decision to settle among those Mayas—such resignation, of a sudden, in my soul?

I turned 75 last December. Throughout 2008, I had felt within me the soulful breezes of impending decisions. After wintering in Guatemala, as had become my custom during two decades of writing (the biography and two companion novels on topics consonant with this essay) I spent the summer and autumn in Kansas City and Colorado's mountains. Personal and public developments during the year, as well as a series of natural disasters (and a Colorado conference on natural hazard trends), fueled my anticipation of approaching a crossroads in my life.

Chief among the personal events were the sale of my mountain residence to which I had retreated intermittently over the past four decades, and frustration with my family's decisions surrounding idealistic plans—gone sadly awry—to use most of that sale income to commence communal cohabitation in rural Iowa: a quiet witness to sustainable living. The move away from the mountains was in part climate induced: bark beetles and other insects, whose infestation has been held in check by cold winter temperatures for as long as anyone can remember, no longer are kept in balance. In just the past few years they have devastated forests of pine, fir, and spruce throughout the North American Rockies. Alternative vegetation will take their place, but in the interim the threat of forest fire is severe and likely to reduce property values. It seemed the wise time to close that chapter of my life.

On the national stage I followed closely the theater of election campaigns and economic crises. While heartened by Obama's meteoric streak across the political landscape, McCain's persisting popularity in the face of the Bush administration's grievous blunders did not augur well. Fortunately (from my perspective) the Democrats prevailed, but I fear that an Obama presidency—like all meteors—will burn out before any second term, consumed by unrealistically optimistic expectations of an impatient, fearful, and economically stressed electorate. No doubt but that our family's retirement savings—dropping precipitously over the past year—further nudged Linda and me toward moving to Guatemala (where the cost of living is substantially lower than in the United States).

But in retrospect, the "push" factor most influential in my resignation has been heightened dismay at the greed, rush to immediate gratification, and debilitating laziness from our ever-growing national addiction to easy credit funding of unbridled consumption. I have become appalled at how we feed and abuse our bodies and minds when mesmerized by the hand-in-glove entertainment/media industries. Life for the "haves" (including myself and almost everyone I know personally) has become largely a pastime: an ever-accelerating experiment with new ways to spend money in passing our days. From the boredom that accompanies satiation and excess, Americans are hooked on diversion: the latest electronic communication fads such as blogging and playing with Wikipedia. We sit in front of computer or television screens for eight hours on average each day (this projected to become nine hours by the end of 2009), not including the computer involvements of our employment. Expenditures in the United States for video games are up 47% over a year ago. Add to this the sitting (and snacking) involved with movies and television, and we need look no farther for explanation of the physical/mental degeneration in our society and why our progeny—on average—will live shorter lives than do we. More time and

creaturely comfort do not correlate necessarily with contentment, and depression currently leads to use of antidepressants by 10% of North American adults.

I find it increasingly difficult to stay on track in the fast lane. In endeavoring to slow down, I find myself feeling run over. The confidence I used to feel that “I am the master of my fate...I am the captain of my soul,” has been shaken by my own vulnerability to American commercialism and advertising; by the weight—shed while in Guatemala—that so quickly returns when I’m back in the United States; and by how much less I accomplish in a day without the greater tranquility enjoyed in Guatemala. **Stewardship of the totality of resources that humanity enjoys begins with how we treat our minds and bodies, and with how we treat fellow humans.** Most damning in the latter regard, in my opinion, is the increasing privatization of our hedonistic lives in the United States: our isolation from the “have-nots” of our own society, and our insulating denial—if not ignorance—of the price this reality of the haves exacts from the have-nots around the world upon which our greed and privilege feed. Looked at in one way, we hardly are to blame as the captive audience of our media-fed materialism. The gulf between the realities for haves and have-nots is largely incomprehensible to the haves (and often to the have-nots as well, as is the case for many Guatemalans in their rural isolation).

This perception of our national human condition is shared by virtually all of my acquaintances. But it only partially accounts for my personal resignation. Another contributing factor is my perception of the risks that humanity faces from worrisome environmental/climatic trends and the political and economic challenges associated with natural as well as human-influenced disasters. The most serious dilemma posed by this constellation of challenges (in my opinion) is migration: the staggering redistribution and increased crowding of people competing for resources as the habitable portions of the planet’s surface steadily diminish. I acknowledge that migration is particularly salient for me in view of my doing exactly that (!) in selling out in Colorado and relocating in Guatemala. **Climate change bears on my decision as it does indirectly on those 1,300,000 Guatemalans (10 percent of the nation) who now—like me—divide their time between homes in the United States and Guatemala.** But in their cases, temporary—if not permanent—migration is due to shortage of land and labor to meet subsistence needs at home. Thirteen million Guatemalans (two-fifths the population of Canada) are simply too many in a country the size of Ohio. Flooding and landslides from unwise occupation of floodplains and urban shanty towns in ravines, as well as from the landslides and diminishing yields from farming denuded mountain sides, force these marginalized poor to face the risks of working illegally abroad.

A recent United Nations projection of 850 million climate-change refugees this century, and of 1,500,000 climate-change deaths annually (doubling by 2020), did not include labor refugees such as the aforementioned Guatemalans. Nor did it include the millions of political/religious refugees, such as the Iraqis who have moved to neighboring nations because of the war. This narrow definition of a climate change migrant seems to me misleading, given the natural resource issues involved (oil in Iraq and land/water/energy fomenting most other persisting conflicts plaguing the volatile regions of the world).

My American friends also understand in large part the risks/dilemmas posed by extreme events of nature and human-influenced disaster. What these acquaintances for the most part do not as fully share with me is the perspective provided by my background in anthropology and now in geography.

Especially because of what I have learned from interviewing and reading the publications of Gilbert White and his myriad associates, I tend to be more convinced than are many friends that—after these past 10,000 years of cultural evolution producing the agricultural and industrial revolutions—we find our unsustainable life styles now irrevocably compromised not only by our own warming of the planet but by the winding down of the Holocene geologic era (now of 12,000 years duration). Just as the abnormal volatility of global weather the past decade is accentuated in our perception by the preceding half century of comparative stability, so the Holocene era has enjoyed unusual climate stability in comparison with the prior planetary norm of much greater volatility. Without understanding human and cultural evolution prior to the Holocene Era (as the backdrop to the problematic transition from nomadic hunting/gathering to sedentary domestication of plants and animals commencing 10,000 years ago), it is difficult to appreciate how unprecedented and (unfortunately for us) short-lived, geologically speaking, those 10,000 years of comparative climate stability are proving to have been.

LOOKING BACK

But let's step back even farther from the here and now. As planets go—within our solar system, galaxy, and universe—Earth has experienced a comparatively stable atmosphere, weather conditions, and hence temperature for much of its existence. We owe life on Earth and our distinctive human evolution to this rare (if not unique) atmospheric and climatic blessing. Homo sapiens emerged as the only surviving hominid/human species—with extinction of Neanderthals—only 30,000 years ago. Peopling of the western hemisphere commenced about then, in concert with populating the other remaining corners of the Earth by Homo sapiens. This was a remarkable human achievement following “survival of the fittest” competition among countless predecessor hominids since our African australopithecine ancestors first domesticated fire 1.46 million years ago. Notably, it took us almost the duration of this final short chapter of our human evolution to become convinced that we do, indeed, share this present level of human capability in common. (Even scientists, until less than a century ago, continued to debate—as many individuals around the world still do!—whether brain development has yielded comparable intelligence among all Homo sapiens racial groups.) Only within the last century have anthropologists (i.e., “those who study people”) identified by language and culture the full range of human populations on the planet and—in the course of that first-hand study—come to the conclusion that we are all as comparably human in mind as we have—for much longer—known that we were comparably human in body (at least to the extent of being able to interbreed throughout the world). Can there be a more poignant irony than our finally understanding the full significance of our evolutionary achievements within mere decades of then learning how those same achievements have brought us to the brink of our own extinction? And, if our extinction is—in fact—close at hand, is it surprising that an anthropologist might find it a blessing to be present at our passing?

It has been the gift (or curse!) of just these last 10,000 years of evolving agriculture, following upon the prior millions of years of our dependency on hunting and gathering, that explains our present post-nomadic human condition: civilized beings, perceiving ourselves to be so accomplished and privileged that we entertain the possibility of deity having created us to provide beings sufficiently intelligent to appreciate the magnitude of all our earthly blessings! All of the world's major religions evolved since the advent of civilizations, the latter spawned by the sedentary occupation of deltas facilitating

domestication of grains. (The one exception were the Mayas, whose civilization evolved inland in Middle America, relying not at all on the river deltas characterizing the birth of all Old World civilizations.)

The Mayas' account of our human origin is an interesting variant on the common theme of our creation in the image of deity. Mayan texts tell of deities weary of competing only among themselves in their favorite ball game (anticipating both soccer and basketball), and experimenting with the creation of worthy opponents. After no success with forming deity-like beings of soil, or then of wood, they hit upon the successful idea of forming humans of cornmeal. In fact, those "hero twins" proved to be their creators' betters! Mayas are considerably less lofty--more down to earth--in all their theorizing about reality. They are "hombres de maiz," much more interested in the muck of water and soil--the earth, its caverns and its rivers--than they are in the heavens of which their Christian conquerors stand in such awe. As an ardent gardener, spelunker, and fisherman, I'm with them!

In summary: our human development has proceeded in concert with an evolving planetary home on whose stable atmosphere and provision of energy resources we utterly depend. But, in turn, the planet's ongoing maintenance depends just as utterly on cycles of extreme climate events that throughout its evolutionary past were too problematic to permit the human cultural inventions (i.e. agriculture and civilization) that we have come to consider our destiny. Unfortunately, the down side of such cultural accomplishment has been the population growth and specialization/interdependency on a global basis requisite for meeting resource needs of such unsustainable population density. We have lived on borrowed time since the advent of industrialization and the extraction of energy stored within our planet's surface of land and water. And we have--through accelerated warming of the planet--put the dependability of our essential atmosphere at great risk. There is much irony in our learning only at this late date that the Holocene Era (the past 12,000 years of such stable climate) is coming to a close. Had the telltale signs of this become apparent prior to the Industrial Revolution two centuries ago, our subsequent behavior might have been less reckless. "Might have been," but not likely so in view of the economic productivity of the Industrial Revolution having been such a boon to academia. We were well into the mining of fossil energy sources before scientists--beginning about fifty years ago--realized the magnitude of risks we had invited by encouraging global warming precisely as the planet returns to the greater volatility of the pre-Holocene era.

How volatile? The history of global warming and cooling is worth brief summary, illustrated by the recent discovery near the North Pole of fossilized dinosaurs of multitudinous species native to tropical and temperate climatic conditions that we assumed could not have characterized the polar regions as recently (in geological time) as 65 million years ago. That was when the dinosaurs quite abruptly died out (the last time, prior to this current crisis, that the planet experienced comparably massive species loss). A number of ice ages came and went in the subsequent interim, with alligators in swamps near the North Pole showing up between 55 and 35 million years ago (when the world was five degrees Celsius--ten degrees Fahrenheit--warmer than at present). The last time the planet was five degrees cooler than at present was only 10-12,000 years ago, after which the ice caps at both poles commenced melting--producing over the next 5,000 years a sea level rise of 60 feet to roughly the current level as temperatures moderated. (The warming trend might have begun earlier and created higher sea levels had a comet shower not struck North America 12,900 years ago, creating a minor ice age that

extinguished mammoths and mastodons and dealt a blow to early evolution of proto-civilization.) The remaining ice sheets experienced little change, then, until the last century. Although global warming was only one degree Celsius the past century (producing negligible rise in sea levels given the heat-absorbing capacity of such immense polar ice sheets a century ago), that was enough to initiate the accelerating melting that will produce exponential rise in sea levels for each of the subsequent degrees of warming predicted during the present century. (The lower the percentage of ice to ocean water, the faster the latter warms and ocean level rises. Similarly, the shrinking polar ice reduces the heat reflection of snow/ice.)

IPCC (Intergovernmental Panel on Climate Change) and related studies published in 2007 agreed that at least two to five degrees Celsius of warming will occur this century. Two years ago it was reasonable to assume (on the basis of available data) that the increase might well not exceed the two degrees. But subsequent data are truly ominous, indicating that the North Sea will be ice-free of summers by 2013 (rather than by 2020 as predicted just two years ago) and that sea levels will rise—if not exceed—four feet by century's end. Until 50-years of Antarctic temperature data were analyzed and published at the turn of this year, scientists assumed that the melting was much more pronounced at the North than at the South Pole. Popular wisdom even had permitted the encouraging assumption that the South Pole had been cooling (due largely to the hole in the ozone layer above the South Pole). Now we know that the warming trend has outdistanced that cooling effect and has been producing ice melt at a rate approaching that at the North Pole. Ocean levels around both Poles (as well as the western Pacific) already have averaged about four-tenths of an inch rise annually since 2000. And since green house gases evidence no decline over the past eight years in any region of our atmosphere, it is likely that warming will be at least—and perhaps even exceed—the five degrees (ten degrees Fahrenheit).

If so, the consequences of global temperature rising by 2100 as much as the planet experienced 35-55 million years ago are virtually unimaginable. One-tenth of the world's population will be forced by a 3-4 feet sea rise to either relocate or (unwisely) to try to wall out the ocean. So much depends on what transpires in Antarctica where our predictive skills are less refined than for the North Pole. And how sea temperature impacts on ocean currents (a major factor impacting on global land surface weather) is but poorly understood as well. As demonstrated by recent wildfires in Australia and the worst drought in 75 years across regions of the southern cone of South America (in comparison with the colder and wetter conditions predicted for the temperate latitudes of the northern hemisphere) global warming affects major regions of the earth's surface quite differently. Relocations of multitudinous species of flora and fauna—not to mention of humans—competing for natural resources will pose challenges beyond our present ability to predict. Add to these risks the increasing frequency and magnitude of many natural hazards, and resignation will soon become one of a declining number of options. With our recent North American experience with increasing number and strength of Atlantic Ocean hurricanes (the result of only a one degree Celsius rise in Atlantic Ocean surface temperature), we begin to understand the magnitude of our dilemma.

Of course we should be doing what we can to avoid adding to the volatility characteristic of Mother Nature. Nothing said in this essay excuses procrastination or apathy in doing everything possible to slow global warming (1). But unfortunately our Judeo/Christian precepts have been complicating North

Americans doing all that we might do. We are handicapped in two respects: we deny the extent of the risk by falling back on our belief in a providential God's promise to provide us timeless security in our earthly Garden of Eden; and we assume that our entrepreneurial/free-enterprising American ingenuity will rise to whatever challenge that threatens such enjoyment of God's providence. Through faith, ignorance (and a fair amount of arrogance), Americans are blinded to the reality that large numbers of us soon will have to move elsewhere if to live at all. The future for many Americans will be Galveston, Texas, writ large.

Is it not prudent for us to assume that during our children's lives if not our own, our own families' survival will be threatened by disastrous climatic events spawning human-related catastrophe (e.g., pandemic disease—if not starvation, or nuclear/biological/chemical accident—if not terrorism and war)? That is within the next 50 years, albeit sooner than the direst prediction (by a reputable climate-change scientist) of large regions of our planet becoming simply uninhabitable if any number of environmental and consumption trends are not promptly slowed or even reversed (2).

My children and grandchildren live in the watershed of the Mississippi River in the United States and only a few feet above the level of the Baltic Sea in Scandinavia (on land that was below sea level as recently as the area's occupation by Vikings). The magnitude of flooding experienced in the Mississippi basin in 2008 (also in 1993 and at comparable 15-year intervals on average the past century) is now predicted by scientists to occur at five-year intervals henceforth. The Mississippi basin is the bread basket of the United States. And river and coastal flooding are but two of the many extremes of nature with which we contend. Underlying the Mississippi is a major tectonic fault that has been ominously quiescent since the Madrid Quake that affected the St. Louis region well over a century ago. A conference on the extreme risks the same region faces (with no certainty as to when) was held in Missouri last summer. I already have alluded to the risks I was facing from forest fires in Colorado's mountains. Drought throughout the west (and especially the southwest where the Colorado River no longer carries water as far as the Pacific), soon will force relocation of populations of the region's major cities. The increasing heat and drought—extending south through much of Mexico—are now predicted by the IPCC to be considerably more severe than projected as recently as two years ago. Too little water for human occupancy increasingly will drive societal relocations throughout some portions of the world as inexorably as will flooding elsewhere.

But the above are known challenges, the risks of which are in large part understood on a grid basis across the whole of our planet. In my opinion, Gilbert White's most prophetic teaching is that—for all the advances of science in helping us understand and mitigate the losses from nature's extremes that we CAN predict—we are more likely to be the most disastrously affected by unanticipated events "outside the box" for which we are woefully unprepared. It is our lack of understanding of what lies outside the box—more than the knowledge with which the international hazards community of scholars is grappling—that warrants, in my opinion, simply resignation. That we so abruptly learned recently of the lubricating effect of surface ice melt descending through glacial cracks to the bottom of ice sheets (greatly accelerating large sections breaking away to slide into the ocean)—not to mention how off-guard we were caught by last autumn's economic meltdown—only serves to confirm White's warning. Our human ecology (White's label for his arena of academic study) of interlocking and interdependent

human and natural systems is much too complex for us to adequately predict—much less mitigate—the magnitude of disasters posed by Earth’s resumption of ‘natural’ climate change when combined with human-caused global warming. UNFORTUNATELY, OUR BEHAVIOR IN THIS REGARD TO DATE ALREADY HAS DONE THE DAMAGE; THE DIE WAS CAST WITH THE ADVENT OF THE INDUSTRIAL REVOLUTION IN THE 19TH CENTURY—AND ESPECIALLY WITH THE EXPONENTIAL INCREASE IN ENERGY CONSUMPTION OF THE PAST HALF CENTURY.

Scientists still argue over what must be done, and how long it will take, to slow the warming of the atmosphere. Answers to those questions will determine how much longer humans can tolerate the changes in temperature (if not the chemistry of the air we breathe). But there is a remarkably silent consensus building that it is now inevitable that large regions of the planet will not be fit for our habitation much longer: a century maybe, but no more than two, depending on the degree to which we actually manage to mend our ways. If we do not succeed in changing behavior/policies promptly and dramatically—in comparison with our minimal success the past quarter century—even Gustav Speth (in his latest book, in my opinion the most important of the books referenced in the footnotes of this essay) now is willing to say publicly that we have less than a century remaining of the technologically civilized/economically globalized life styles that the haves of the world have come to take for granted. And Speth was unaware of the rapidity of accelerating glacial melt. The Industrial Revolution has brought us to this precarious state of the planet (3).

At this point please study the attached set of tables at this essay’s end (borrowed from Speth’s book), especially those documenting how recently and the degree to which greenhouse gases have accumulated in the atmosphere. To understand the magnitude of the changes set in motion on both sides of the Atlantic during the 18th century, that initiated human warming from greenhouse gases, I also rely on Gregory Clark’s, “A Farewell to Alms: A Brief Economic History of the World,” 2007. Until around 1800 A.D. in England and Europe and—from the scattered data available—also in the other most economically productive regions of the world, per capita income (and hence the average standard of living) rose hardly at all, whereas during the subsequent two centuries of the Industrial Revolution in England and Europe, per capita income and standard of living rose—on average—600 %. By contrast, global population had been steadily increasing wherever agriculture had taken root. But such population increase only began its present exponential ascent with the Industrial Revolution’s momentous acceleration in energy consumption from mining natural resources such as coal and petroleum. As recently as 1000 A.D. the global population was only 270 million (less than our present United States population). By 1820, population had climbed to one billion. By 2,000, however, we were at FIVE billion, and now we are at 6.7 billion...well on our way to the projected nine billion before global population starts its decline by mid-century. How on earth (unless we learn to live on the moon or Mars as well!) will we cope with almost half again the numbers of our present global population?

The heart-stopping observation, however, is that our planet would have been unable to feed the burgeoning human population even beyond roughly 1950 had the Second World War not produced stockpiles of nitrates (for munitions) that—at war’s end—were imaginatively converted to fertilizers. By 1950 the global annual use of fossil fuel nutrients for crop fertilization (that had commenced around 1920) was only 40 million tons. By 1975 we were averaging 275 million tons annually and had more

than doubled soil productivity worldwide. Whether converted to food calories to fuel our bodies, or to the fueling of the era's industrial inventions, the consequence was the same: increasingly fueling the warming of our atmosphere over these past two hundred years. Gilbert White was the first scientist to pose the question (35 years ago): What effect might the phosphates, nitrates, and other chemicals used in commercial farming be having after washing from soil to sea and—through evaporation—becoming part of our atmosphere? Studies that White's question put in motion have since documented that our use of fossil fuel to feed more bodies than otherwise our agribusiness industry could keep alive has been contributing as much to global warming as does our appetite for the fossil fueling of our myriad inventions of travel, housing comfort, and entertainment.

But the detrimental reliance on fossil fuel for our sustenance has become more insidious than simply the fertilization of crops: agribusiness now uses petroleum energy to create foodstuffs of wholly human invention, chiefly through reconstitution of the ingredients in corn (and soybeans). To a remarkable degree, corn is now the basis of human diet throughout all regions where "fast food" has become commonplace (and McDonalds and Coca Cola are just about everywhere), not to mention its role as ethanol in fueling our vehicles as well. We not only rely on fossil energy to grow and reconstitute corn for inclusion in an amazing array of the foods in our grocery stores, we use fossil energy to transport those food commodities to our stores. Every item on American store shelves travels an average of 1500 miles from its source to those shelves. Accordingly, the declining sustainability of our global population has been much more a direct consequence of the industrial revolution than the indirect consequence of the earlier agricultural revolution. Populations, even in the United States, are much closer to food and water scarcity—to starvation—than is yet a "thinkable" scenario for the haves of our world.

There is another problematic consequence of the advent of agriculture: food surpluses for the first time in our history (that could be stored for emergency use) precipitated not only population increase but the evolution of early civilizations in the river/sea delta environments that were especially conducive to domestication of plants/animals, permanent settlements, and the first urban/class stratified civilizations. Pre-agricultural societies were, by comparison, remarkably more egalitarian. Returning to the above observation that per capita income and standard of living changed very little around the world prior to 1800, it must be noted that such per capita averaging of wealth belies the common legacy of societal stratification and civilization wherever these occurred: class differences in wealth, power, and privilege. While the have-nots (commoners) the world over have lived at little higher than subsistence standards throughout these ten millennia of agricultural dependence, the haves (kings) have enjoyed markedly greater fortune for just as long. No one now needs to be told that this gap between haves and have-nots has been widening of late just as precipitously and dangerously for our human survival as our atmosphere has been warming from the energy consumption of our burgeoning population (4).

This has become the legacy of agriculture—and especially of petroleum-based agribusiness—leading to last autumn's meltdown of the globalized free-market financial system. The sadness will deepen as a new administration in the United States struggles to move toward energy sustainability (involving huge investments in alternative energy technologies) while coping with the economic recession. I conclude that we are already overwhelmed, and essentially leaderless throughout the world, in coping with such complexly interrelated challenges to a human future as satisfying as our recent past has been for at least

the haves of the world. For the half of the world's population STILL at a bare subsistence standard of living (judged currently to be \$2 per capita per day) there is little prospect for things getting any other than worse, despite the 600 % average per capita productivity/resource surge of the past two centuries. Averaging economic data hides a multitude of sins!

It is time to introduce you to my Mayan neighbors in Tzununa.

LIFE AMONG MAYAS IN GUATEMALA

I have Gilbert White to thank for introducing me—in 1961—to my anthropologist mentor, Sol Tax, at the University of Chicago. Sometime earlier Tax had coined the term “worldview” in his quest to understand and interpret the patterning of Mayan beliefs, the subsequent subject of my doctoral dissertation as well. I have come to understand that I owe my resignation as much to a Mayan worldview as to my own upbringing. Although resigned, I do not regard myself as apathetic—far less as depressed. I find myself joyous and energized by the “reality check” afforded by living with neighbors who as recently as fifteen years ago had no running water nor electricity in their community of three thousand Indians. With no land lines, they rely on cell phones. I know of no one who owns a computer, or even a typewriter for that matter. Cable TV is available, but the cost is beyond the means of more than a handful of families. There are no more than a half dozen motor vehicles. We rely on public boats passing by every half hour to get to doctors, a pharmacy, shops and markets, and (in my situation) to internet access and a bank. No newspaper is sold in Tzununa nor even delivered there to my knowledge. There is a school providing six years of training, but with attendance optional and few continuing beyond fourth grade. There is no library, and the overwhelming majority of adults are illiterate. Most men are reasonably fluent in Spanish, whereas fully 75% of the women speak only their Mayan language and have not ventured beyond communities bordering Lake Atitlan in the department (state) of Solola.

Most Tzununa families, averaging between eight and nine members per household, grow most of their food and subsist on no more than \$2 per capita cash earnings per day. With adult men the only wage earners (there is no craft industry or catering to tourism whatsoever), this means that three wage earners per household bring home the average wage of \$6@ for an eight-hour day of hard manual labor: \$18 for the needs of nine. No one has medical insurance, and very few have employment in the sectors of the economy where employers contribute to retirement benefits. **In short, there is none of the safety net that we depend upon so heavily in the United States.** Despite this, there is virtually no begging, and I think it fair to say that most do not feel that they are unduly needy. In fact, what questioning I have done suggests that they consider themselves to live more healthily than do most Ladinos (whose diet, heavy in animal protein, they deprecate) and to be materially better off than were their grandparents. This, despite longitudinal data on dietary consumption and infant growth rates suggesting that diet/health have been deteriorating among Mayas of the region over the past 75 years. BUT, they define their needs utterly differently than do North Americans: these are limited almost entirely to the subsistence needs of food, clothing, and lodging, almost all of which they grow, make, or build themselves. They are proud of their culture and are not easily convinced that they should be changing their lives in any significant way. After all, they have lived essentially this way in their valley for more than a thousand years. (The nearest archeological excavation—a half dozen miles above the

valley—revealed occupation back 2000 years, and there is no oral tradition to suggest other than continuous occupation of the region since then.) Like the hummingbirds of their valley (Tzununa means The Place of Hummingbirds), they keep trucking along with legendary energy at subsistence routines of which they appear never to tire. And they also stop at regular intervals to smell the flowers. The truth of the matter is that—barring climate change that ends atmospheric protection for all humans or produces Central American heat or cold beyond human endurance—Mayas will survive much easier than will the industrialized world any scarcity of electricity and motorized transport accompanying exhaustion of fossil fuels. As a bumper sticker notes, The Meek Are Getting Ready!

I have shared this much detail of my Mayan neighbors' subsistence livelihood to clarify why their resignation does not equate with apathy. An ethic of hard work (fairly described as a Mayan addiction) need not equate with addiction to consumption. No one in Tzununa endeavors to sell me anything other than—occasionally—their labor. If there is a global problem of warming or other climate change due to unsustainable use of resources, they see no reason to accept any of the blame. Their goal is less to chastise themselves for human limits to understanding, and any consequent excess of which they might be guilty in use of the natural resources at their disposal, than to maintain as much quality of life as is possible under their individual circumstances (however dire these may become). They understand that natural hazards seem to be impacting them in more frequent and costly fashion than formerly, and they listen attentively when I say that—regardless of where any blame may lie—the global climate changes pose as much risk to them as to North Americans. I suspect that they think to themselves that my Christian upbringing makes me unduly apocalyptic in this regard! And perhaps it does, despite my agnosticism with respect to much of biblical teachings and my interpretation of the Book of Revelation as possibly useful allegory. But equally useful in my ponderings are the comparably apocalyptic teachings of Maya religion, rooted in their calendar-based cosmology that views our world and human nature in radically different fashion.

My Christian upbringing encourages a belief that human behavior and morality will be the basis of God's final reckoning. Commencing with the doctrine of original sin, and adding confession, atonement and (hopefully) forgiveness, we Christians are slow to despair—even to resignation—reasoning that it is has been uniquely up to us, as God's chosen, to enjoy the rewards of this earthly creation and now to determine the earth's salvation. For the Mayas, by contrast, deities take stock of their earthly creation periodically and predictably—not at some end-time final judgment, and hardly with an assessment limited to human behavior. Such assessments are governed by recurring cycles of years according to not just one 365 day calendar of earth orbiting the sun (perceived by early Mayas as the sun orbiting the earth), but to intermeshing solar, lunar, and even Venus calendars governing not only passage of time but planting/harvesting activities and behavior of all kinds. The principal difference lies in the Mayan cyclical, rather than the Christian linear, progression of time that occasions recurring dates of conjunction among calendars when the gods assess the wisdom of yet “another go around” in their experiment with life on earth. Hence the ignominious reputation of some pre-conquest Middle Americans—notably the Aztecs of central Mexico—for periodic sacrificing of so many fellow humans to appease any wrath of those cosmic judges.

As it happens, one such rarely recurring date is approaching in 2012, with a “report card” judgment of greater import than has been rendered for over five thousand years. The Mayan calendar, originating with their Olmec predecessors some 4,000 years ago and refined during the 7th century of the classic Mayan civilization (300-800 A.D.) in Chiapas, Mexico, posited August 13, 3114 BC (by our Gregorian calendar) as the commencement of the present Sun Period of 5,126 years ending with the winter solstice, December 21, 2012. The classic Mayas believed this Sun Period to be the fifth such period in a Sun Era of almost 26,000 bundled solar years, with the transition to any such sequel era of 26,000 years considerably more portentous and problematic than the transitioning among the preceding companion periods of this era. (Quichean Mayan seers in the Midwestern highlands of Guatemala suspect that we are closing out only the fourth period of this era, but either way 2012 is shaping up to be a momentous reckoning for life on Earth.) There is no lack of consensus among Mayas from Mexico to Honduras regarding the older and shorter lunar calendar upon which so much of Mayan agriculture, ritual activity and identity are based. Consider the following: our toes and fingers number 20, the basis of Maya counting and their definition of a month, or katun—13 of which constitute the moon’s Tzolk’in calendar (260 days). The growing of Mayan maize requires 260 days; the growing of a human fetus requires roughly the same. Those 13 katuns, plus five more of 20 days, total 360 of the 365 days of the earth’s orbit of the sun (the other 5 days added for contemplative transitioning from one solar bundle of days to another). And 36,500 Tzolk’in cycles equal the 26,000 years of a Sun Era, which—when divided by five—account for the bundling of roughly 5,200 solar years in each of the five Sun Periods.

If accepting the classic Mexican Mayas’ assumption of the 2012 winter solstice climaxing the last of these five periods, we will have the remarkable coincidence of that 26,000 years anniversary also marking “precession,” the synchronization of our spinning sun, all of its planets (except problematic Pluto), and our Earth’s moon momentarily occupying a single plane. But there is considerably more to this precession: on December 21 at the moment of sunrise, the sun enters the constellation of Scorpio at the galactic center of the Milky Way, which at the 2012 winter solstice will “lie” on the Earth’s eastern horizon. And at that sunrise our solar system momentarily joins the plane of our galaxy as well. In Mayan mythology, this climax of precession marks the sun’s impregnation of the Feathered Serpent (the Milky Way) through the dark cleft observable in the serpent’s body. And to the energy released by precession, Mayans attribute the natural disasters characterizing such transitions (in oral history). The sun’s subsequent 90 degrees ecliptic trajectory upward from the prone serpent becomes the sacred Mayan cross associated with cosmic rebirth of the universe and life on Earth every 26,000 years (actually 25,800 years as refined by modern astronomical technology). And with modern scientific understanding of human evolution, Mayan seers now understand that this latest recreation of human life on Earth is featuring the emergence roughly 26,000 years ago of Homo sapiens as the sole bearer of our evolutionary tradition. Metaphorically, this supplanting of Neanderthals by Homo sapiens is recalled in Mayan gods’ replacement of humans formed of—first dirt, then wood—by people of corn during “our place in the sun.” And, by implication, our physical/cultural survival will depend on how wisely we transition to the next era of 26,000 years! This period of contemplation of our history and discernment of our future is already underway, modeled on less portentous but more frequent transitions. As mentioned above, every solar year transitions with five such soulful days, just as every 52 years the classic Mayas celebrated 13 “leap-year” days (analogous to our adding February 29th every four years.)

With again the help of modern science, there is another piece to the puzzle of understanding the full significance of 2012. Recent calculations suggest that we are roughly 26,000 light years away from Scorpio's galactic center. Accordingly, when we view the winter solstice in 2012, we will in fact be witnessing that mythological mating of sun and feathered serpent. Each Sun Era's conception is literally recreated at its passing. (This serpent metamorphoses into the sacred ceiba tree of life—her dark cleft now the tree's trunk—when the Milky Way periodically rises to span the sky directly overhead.)

Having briefly summarized how Mayan calendrical sacred knowledge marries measurement/numeration in both time and space (mathematics and astronomy), it remains to summarize how this calendrical knowledge also embraces "matter" in creation's myriad forms of mental/physical consciousness and character. Luminosity is an apt description of this holistic integration of "being," suggesting energy as its essence. Mayan hieroglyphics are the medium for storing and communicating luminosity, with glyphs embodying personality/character as well as number/measurement. Recall that there are 13 lunar months, each with its own glyph and animal guardian spirit or nahual. And even in the progression of the 365 days of the solar calendar, this sequence of 13 repeats alongside in parallel fashion. The most obvious reason for this is to ensure that every Mayan is born under the sign/care of one of the 13 day guardians. I expect that most contemporary Mayas are aware of their day-nahual and the astrological suggestions of predestined personality and strength of spirit or soul energy this guardianship implies.

With prophecy so inherent in creation (from birth of the individual to birth of an era of 26,000 years) one might ask: Why were indigenous peoples of Central America so obsessed with prediction? Already, with several years remaining of this current Sun Period and its much greater era of 26,000 years, Mayas see signs portending inexorable judgment in both the heartening and disheartening events occurring. They are particularly attentive to climate change and natural disasters (5). If Mayas have been more preoccupied with nature's extremes than typically have been other religions emerging over recent millennia, explanation could rest in the greater volatility and extremes of weather and seismic activity in their region of the planet. From a newspaper in Guatemala I learned recently that Guatemala is the planet's nation most at risk from natural disasters (because of bordering on two oceans and at the junction of several tectonic plants). And in a Peru newspaper last December I read that Honduras (bordering Guatemala, with comparable climate risks)—along with Peru and Bangladesh—are the nations most at risk from climate change and global warming. When confronting uncertainty, it is human nature to reduce it through speculation and rationalization of cause. Resignation to prophecy is more adaptive than is paralysis from ignorance. If Mayas were unusually at risk from nature's energy, it would follow that they attended even more closely than other civilizations to astronomical phenomena. To facilitate handling numeration on a cosmic scale, their mathematicians were the first to invent the concept of "0." And their astronomer priests were the first to understand and prophesize galactic precession with such accuracy.

Fate in the form of judgment by deity is eased the more it is shared, among humans to be sure, but even more so if shared with all of creation. Mayas attribute some level of energy (spirituality/consciousness) to every form of matter, inanimate as well as animate, and accordingly they believe that the gods' judgments are not limited to merely the human record. More to the point, there can be no distinctively human reckoning, since all of creation is of one piece. For the early Mayas (and persisting today among

the more conservative pockets of Mayas across Middle America) human beings are endowed with complex souls embracing spiritual counterparts (guardian spirits) that extend beyond one's birth-day nahual. All earthly forms of creation are thereby complexly and mysteriously interconnected and—accordingly—equally deserving of respect, if not fear. Moreover, the Mayas prior to the arrival of Spanish conquerors did not distinguish so sharply between the natural and the supernatural (as reflected in the aforementioned account of human origins). To the extent that most contemporary Mayas now emphasize that distinction, as do Christians generally, it is an accommodation not only to their Catholic conquerors in the 16th century but more recently to Protestant missionaries who commenced their proselytizing in the late 1800s (6).

How accepting have I become of the Mayan worldview, and in particular of their belief in an apocalyptic reckoning in 2012? I am at least as unconvinced of this belief as I am of the Christian assumption about a pending final judgment. But I have no doubt concerning the inevitability of overwhelming disasters occasioned by climate change. Might it be helpful to us all, therefore, that Mayas are so convinced of the 2012 timing of any pending challenge to continued life on earth? 2012 is rapidly becoming shared knowledge up and down the hemisphere (as well as abroad). In my opinion this can only be helpful in focusing our collective attention, allegorically, on whatever lies in store for us these next few years.

My Christian upbringing taught me that as a human I deserve more of our natural resources than do the vast diversity of companion life forms sharing our planet. It is a Christian assumption that God reserves for only humans, among the multitudinous forms of creation, soulful spirituality and intelligence adequate to comprehend and appreciate the blessing of our special entitlement. I have found that the animism that is so pervasive among my Tzununa neighbors—their attribution of levels of consciousness (sensory faculties, soulfulness, and intelligence) to potentially all of matter—fits more closely with my life experience as a gardener, birder, and fisherman. And extrapolating from this generality, I now incline less toward other Western dichotomies as well: human vs. non-human intelligence, rational vs. instinctual mental and nervous functioning, human vs. non-human spiritual consciousness, and morality applicable to inter-human conduct vs. amoral treatment of natural resources. **Where my Christian tradition perceives humans as uniquely blessed and entitled in a creator's treatment (giving rise to the above dichotomies), Mayas recognize continua in place of all such dichotomies and gradations of spiritual/mental strength and social status/power among all beings. Mayas see the human odyssey less as a struggle between good and evil than as maneuvering among fellow companions (non-human as well as human) of varying spiritual energy and influence with deities.** An adage sums this up quite tidily: "There are branches and roots—of goodness and ill—in everything 'round us, from heaven to hill."

Their beliefs integrate a natural cosmos of great unpredictability and danger that often defies atonement for selfishness and argues for stoical acceptance of much that is perceived to be unjust and predestined. From my anthropological perspective, I see such a worldview as functional/adaptive in helping them rationalize and cope with the Spanish conquest legacy of racism, subjugation, and poverty. Mayas have much to teach the "haves" of the world about resignation. In living among the Mayas and facing on more equal footing the risks from nature that all of humanity—indeed, all of the life forms of our planet—now face, I seek the serenity with which Mayas greet the blessing of just one more day and express their gratitude at each day's end. **To be thankful for and content with what one has, to let go of**

unrealistic expectations for a better future, is rather refreshing in today's world. And buttressed by a spiritual tradition that supports—rather than denigrates—such resignation can be a true blessing.

Am I idealizing the Mayan way of life as my pessimism grows over trends in the United States? Yes, but only to make two points: peace of mind does not correlate closely with standard of living; and in facing insecurity, resignation need not equate with despair nor apathy. But this said, there are many aspects of life in Tzununa, including some belief premises and behavioral norms, that disturb me fully as much as my aforementioned concerns about North Americans. Although my Tzununa neighbors are experienced in and dedicated to stewardship of soil and water, conserving and recycling resources natural to their environment, they are stymied by the imported throw-away economy of plastics, cans and bottles. From my perspective, Tzununa is a totally trashed community. They are too inclined to regard such litter as conspicuous consumption rather than as trash. If some are as bothered by this as am I, there is no evidence of discord over the matter. Which is another problematic issue: from my perspective Mayas are stubbornly paranoid, fearful of offending each other or any of the other beings with feelings in their world. Accordingly, leadership in suggesting change is a scarce commodity, not a role wisely volunteered or coveted if concerned about social acceptance. Instead, “the status quo is the way to go.”

As a result, change is inherently problematic, and Tzununeros are more inclined to point to the down—rather than the up-side—of the changes observed in neighboring communities of greater openness to proffered assistance from outsiders (be they foreigners or Ladinos). Tzununeros have been slower even to avail themselves of the governmental programs of development, including public schooling and health care. Anthropologists—as participant-observers in indigenous societies—typically have been slow to challenge or advocate for change of such conservative patterns. We often join in rationalizing—as do the natives—their mores and norms as cultural tradition rather than as structural adjustments to poverty and social injustice/discrimination. In this regard, I ponder how the disenfranchisement of Guatemala's rural poor in so many areas of public life may explain the persistence of male dominance in Mayan society. Although Mayan families are generally stable, and husbands loyal to wives, women feel constrained to reproduce at male will and appear to rest content with a cultural norm of several more offspring than is the norm among non-indigenous Guatemalans. Catholicism and traditional society in general throughout Latin America have been chauvinistic in this regard, but in my perception the Mayas cling more than do Ladinos to a belief in male mental and spiritual superiority. Protestantism weakens such gender assumptions, and perhaps because of this only five percent of the Tzununa populace has converted to any of the many Protestant sects finding much wider acceptance elsewhere in the region. But generalizing about any community or society's norms is misrepresentative of the range of individual acceptance of those norms within the group. I must guard against painting a picture of more uniformity and conformity in Tzununa than is the case. In this essay my primary objective is to call attention to premises of Mayan psychology and belief that can ease the despair that we North Americans may well experience when faced with what now we regard as “the unthinkable” (7).

I have had unusual assistance in cultivating emotional as well as intellectual acceptance of impending planetary crises: not only the mentoring by professors White and Tax, but also the opportunity to live among Mayas (including sharing their experiences of major flooding, earthquake, hurricane, and accompanying landslides). Were I not blessed with such emotional independence at this juncture in my

life, with enough financial independence to own property in Guatemala where good friends and experience give me companionship and peace of mind, I doubt that I would have the courage to act on this sense of resignation. But since I do find such resolve, I ponder the utility of identifying new ways of sharing with all whom I leave behind what Mayas of my acquaintance have to teach about resignation in the face of deepening risks of catastrophe. Through assorted academic publications and—most recently—through two serial historical novels with Maya protagonists, I have endeavored over the years to impart some of this understanding. Now, through this manifesto I invite readers’ discernment about where—together—we might go from here.

EPILOGUE

Would you believe that, precisely when I finished the above key-boarding and pushed the print key, an earthquake stronger than this region of Guatemala has experienced in several years shook my Tzununa domicile for two minutes? (Centered in Chiapas, Mexico, it was 6.5 on the Richter Scale.) What do I make of this: mere coincidence, or cosmic endorsement—if not condemnation!—from below of my politically incorrect resignation? And from above, the latest hurricane from the ocean 75 miles away has been pounding the lake with rain for a week. Then, from in between the over and under-worlds, Guatemala’s most active volcano just yesterday resumed its display of fireworks on my distant horizon. My Maya gardener immediately connected the events: related portents from “heaven and hill” as 2012 relentlessly approaches! Such a soulful place, this Tzununa: animated through and through by what Mayas discern as natural portents, and I as serendipitous “openings” to ponder new directions.

If I have anything of value in my worldview to share with Mayas, it is my confidence that things have a way of working out—that way will open with collective discernment—given their Mayan disposition to assume, just as doggedly, that doors have a way of usually closing! It is the difference between a glass half empty or half full. Mayas can teach me/us to think more positively—even in resignation—about an increasingly problematic future. I/we can teach them to think more positively about the improvements realizable in their living conditions in the here and now. We easily conclude, with them, that they need more disposable income. But simply increasing income does not ensure more commitment to schooling, eating better, or living in more healthy conditions in terms of sanitation and safe water, etc.—given the advertising of a consumerism-oriented world that even the poor in Guatemala cannot avoid completely. Guatemalans between 15 and 49—more those poor than those wealthy—are second only to Mexicans among Latin American nations in proportion of the population being over-weight and obese. Honduras ranks third, suggesting that proximity to North American fast food culture is the cause. Remember that one of every ten Guatemalans works in the U.S. Education in nutrition is badly needed.

Accordingly, Linda and I are turning over some of our land to provide a meeting place for women of Tzununa who have begun organizing for classes in nutrition, infant care, family planning, gender equality and empowerment, and a more diversified base of income. To help finance such instruction, outsiders residing in our municipio (county) have formed an NGO foundation, Los Amigos de Santa Cruz. Although Tzununa is the largest population center in the municipio, its conservatism has impeded self-help organization from within to take advantage of the services available through Los Amigos. We also bring to local attention the availability of foreign medical care in special needs areas that are but minimally

addressed by government: vision, hearing, and dental care. In March of this year I Care International responded to an invitation to send 33 North American medical personnel and assistants to Tzununa for an eye-care clinic. Pro-action, in preventative medical care and education, is a new concept...slow to catch hold in conditions of such poverty and conservatism. The entrenched custom is to assume that all is well until disease hits, and then to assume that the cause is as likely to be a soulful reprimand for giving offense within the family or community (subject to a shaman curer's intervention through a divination ceremony and/or herbal remedy) as it is to be a physiological problem requiring clinic consultation or a pharmacy's medicine. We do what we can to educate in non-judgmental fashion while focusing fully as much—in return—on what we learn from living in Tzununa. When it comes to what lies ahead, as nature does her thing, I believe that Mayan humility will prove more adaptive than will our North American confidence in God's grace and assumed promise to help those who help themselves through Yankee ingenuity. At this point in my discernment this is the best that I can do in integrating my worldview—as a scientist—with the significance that Mayas attach to 2012 and that my grandmother—as a Quaker missionary among Mayas—would have attached to a final judgment as anticipated in the Book of Revelation. In life's journey, we are a part of all whom (or that!) we meet...and take the time to commune with deeply.

FOOTNOTES

- (1) See most usefully Fred Krupp and Miriam Horn's "Earth, the Sequel: The Race to Reinvent Energy and stop Global Warming," 2008. Less helpful—for its political opportunism—in my (and reviewers') opinions, is Thomas Friedman's "Hot, Flat, and Crowded: Why We Need a Green Revolution and How It can Renew America," 2008.
- (2) See especially J. Gustav Speth's "The Bridge at the Edge of the World: Capitalism, Environment, And the Crossing from Crisis to Sustainability," 2008. While I cannot deny that "to confront inconvenient truths...(we) must focus on building a politics of shared hope rather than relying on a politics of fear" (see Nordhaus and Shellenberger, "Break Through: From the Death of Environmentalism to the Politics of Possibility," 2007,) I believe that we nonetheless deserve to know the truth. The leading U.S. forum for such assessment is the annual Natural Hazards Center workshop of 500 invited attendees at the University of Colorado. Founded by Gilbert White 35 years ago, I have attended the workshops the past decade (as well as the inaugural biennial international Disaster and Risk Conference in Switzerland, in 2006).
- (3) In my opinion, Speth (for the past quarter century) has been pronouncing that we have more time to reverse global warming trends than he, in fact, believes to be the case. Gilbert White, a colleague of Speth's in the first conferences on accelerating deterioration of our environment, agreed but likewise reasoned that it is better to grasp at any straws of hope for stemming the tide than to encourage apathy by possibly overstating the risks. In my search for greater candor among scientists in their publications, the most poignantly sad reading I have done of late is the chapter in Speth's book setting forth the changes in attitude and belief that he identifies (correctly, I believe) to be prerequisites to saving our planet: (1) an international policy shift away from our old misguided economic growth mentality—the free market capitalism as propounded by Milton Friedman and his Chicago School economist associates (see Naomi

Klein's, "The Shock Doctrine: The Rise of Disaster Capitalism," 2007); and (2) conversion to a new consciousness of shared destiny with all of life on earth. I shook my head incredulously over his assumption that—with no more time than even he optimistically allows for peoples around the world to reorder value orientations, behavioral patterns, and institutional policies—we all can adopt what I think fairly can be described as the Mayan worldview regarding economic behavior and stewardship of natural resources. The bridge that is lacking between just our own North American consumerism and the more responsible stewardship practiced by Mayas is indeed a long one. I dare say that the majority of Americans—if thus transported to my Guatemalan community of Tzununa—would conclude that it is in fact the bridge to nowhere. Sometimes in life, you simply can't get there from here with no more time than you have for the journey. But at least Speth is telling it as it is with respect to the magnitude of the transformation that would be required for humanity to return to sustainable living.

- (4) The richest one percent of Americans currently are worth \$17 trillion, nearly \$2 trillion more than the bottom 90 percent combined (see the June 30, '08, special issue of "The Nation" on the New Inequality). And this is our own United States, with the highest per capita standard of living in the world (barring a few small oil-rich member nations of the Arab Emirates). Our national energy consumption equals that of the next sixteen highest nations' consumption, totaling—when combined—47% of the world's total consumption.
- (5) See Gerald Benedict's "The Mayan Prophecies for 2012," 2008.
- (6) In 1902 Quakers were second only to Presbyterians in establishing a Protestant mission in rural Guatemala, endeavoring to convert Chorti-speaking Mayas of southeastern Guatemala and western Honduras from their folk Catholicism to a more doctrinal Christian worldview. It is no surprise to me, after my years of living among largely Catholic Mayas whose native deities long since have fused with Catholic saints, that the Chortis showed so little interest in the rigid monotheism of Protestantism. After all, the Chortis consider themselves to be the direct descendents of the citizens of Copan, the southernmost of the trinity of most revered classic Mayan cities spanning present-day Honduras, Guatemala, and southern Mexico. But not to be deterred, Quakers (including my grandmother) redirected their proselytizing to the non-indigenous Ladinos of the region. That endeavor was greeted with success, judging from the 15,000 Quakers currently living in Guatemala, Honduras, and El Salvador.
- (7) "The Unthinkable" is the title of Amanda Ripley's 2008 book about the range of observed responses among North Americans to a broad range of crises of recent years. Her findings teach us that self-understanding of strengths and weaknesses in coping with the unthinkable can significantly improve our peace of mind in living with these deepening risks and responding when disaster strikes. Ripley touches on resignation as a sometimes adaptive response to crisis, but she does not delve into the potential for cultivating such disposition once the inevitability of catastrophic climate changes is accepted.