The ecological record of European colonists in North America is an infamous one.

As Roderick Nash clearly documented in “Wilderness and the American Mind,” pioneers regarded the wilderness with “defiant hatred” and treated it so. And for every John Muir who came after them, there were a hundred robber barons who didn’t give a damn about nature. Dave Foreman wrote that “Outfitted with the Myth of Superabundance and Puritan witch-hunter Cotton Mather’s wilderness-conquering theology, settlers scalped the land as they scalped the Indians. All too soon, the endless land-wealth began to run out. Poorly husbanded farms lost their yield.” Overhunting of deer was such that in Peter Matthiessen’s words “In Massachusetts a closed season was enforced by 1691, and by 1718 a closed term of three full years became necessary,” while in 1710 the State government “prohibited the use of boats, sailing canoes and camouflaged canoes in pursuit of waterfowl.”

Foreman described the twenty years following the Civil War as “The Killing Decades.” “In the twenty gory years following Appomattox,” he stated, “30 to 50 million bison were shot, tongues were hacked out, and most of the Great Eastern Forest from the Appalachians to the Great Plains and Gulf Coast to the Great Lakes was sawed down, burned, and cleared for farms. Even the swift, dreadful ransacking of rainforests in Africa, the Amazon, and Southeast Asia in the last twenty years barely matches the wasted or gobbled flesh and stumps in the United States between 1865 and 1885 or so. It seems that American manhood didn’t get enough blood at Antietam and Gettysburg. And over a billion passenger pigeons were shot down ...”

What drove this holocaust? What was its basis? According to Lynn Townsend White Jr. in his seminal paper of 1967, it is Christianity which lies at “The Historical Roots of Our Ecological Crisis,” for in Christian cosmology no item in God’s physical creation had any purpose save to serve man’s purposes. White argued that “Christianity made it possible to exploit nature in a mood of indifference to the feelings of natural objects...it’s the most anthropocentric religion the world has seen...what we do about ecology depends on our ideas of the man-nature relationship. More science and more technology [which White maintained issued from a Christian worldview] are not going to get us out of the present ecological crisis until we find a new religion or rethink the old one.” White’s provocative hypothesis rocked academia and sparked a revolution in ecological ethics. No wonder the agenda of “Traditional Ecological Knowledge” (TEK) has found so much traction in academic, government and corporate circles.

A similar theme was struck 14 years later in Canadian John A. Livingston’s book, The Fallacy of Wildlife Preservation. Livingston argued that...
environmentalists were losing the war to save wildlife habitat because they were fighting the battle with the men in suits on their terms—that is, the terms of facts and figures and dollars and cents. But you can’t always quantify the priceless bounty of wildlife and pristine lakes and streams. The power-brokers only want to know about hard numbers, “tourist dollars” vs. the opportunity cost of no development. The only way to save wildlife is to win a constituency for it, and to do that you’ve got to get people out of their shopping malls and fitness clubs and into marshes and lakes and actually “experience” wildlife. The battle to fight climate change or save the environment cannot be won by producing hard data or scientific papers and presentations. That’s been done. Ad nauseam. People aren’t listening because they have lost their connection to the land, to nature. They live in cities, artificial bubbles that insulate them from an appreciation of the wonderment of this continent. For Native Americans, for aboriginal Canadians, religion issued from the land itself. As Lynn White said, in antiquity, “every tree, every spring, every stream, every hill had its own genius loci, its guardian spirit.” When we re-establish that kind of connection, perhaps the kind of mystical understanding that Capra spoke of, as opposed to the purely rational, scientific mindset that is presently favoured, then we might have some hope of saving something of this planet. Or so goes the argument. In other words, to follow this reasoning, we need a spiritual awakening, much more than a scientific understanding. And a spiritual awakening definitely not of the Christian kind, unless it is the Christianity of St. Francis of Assisi, for White a true revolutionary who assigned spiritual parity to non-human species. “God” did not grant us dominion over everything that lives on earth.

This is all, I think, a persuasive argument. But a flawed one nonetheless. Let me attempt to explain why.

Surely there is little that is so pernicious as the profoundly racist notion that somehow indigenous peoples are endowed with a special relationship, a spiritual kinship with nature that makes them superior caretakers of the land Europeans took from them. It is a view best reflected by John Muir’s claim that “Indians walked softly and hurt the landscape hardly more than birds and squirrels,” a claim that is contested by the fact the Yosemite landscape he attempted to preserve as wilderness was shaped by Miwok burning, pruning and selective harvesting conducted over several centuries. It is a myth of native peoples which Jared Diamond characterized as that of “environmentally-minded paragons of conservation, living in a Golden Age of harmony with nature, in which living things were revered, harvested only as needed, and carefully monitored to avoid depletion of breeding stocks.” On the contrary, as Robert Whelan observed, “We know that native peoples can be as destructive of their environment as anyone else, and that historically aboriginal tribes often changed whole ecosystems by the repeated burning of forests and by hunting animal species to extinction. The noble savage is a white Western artifact.” An artifact, one might add, whose lineage can be traced back to Rousseau, Montaigne and several before them, born from an altogether familiar need to use native peoples and their assumed simplicity and innocence as a foil to critique European society, and to project upon them the attributes we find wanting in ourselves. There is nothing so Western, after all, as Western self-loathing. The truth is, North American aboriginal groups have altered ecosystems by the use of fire, selective harvesting and plantings and most probably—in the beginning—exterminated most native megafauna—large mammals, including mastodons, ground sloths, giant beavers, camelids, equids and indirectly, their large predators, like the sabre-toothed tiger. Could other factors have played a role in these extinctions? Quite possibly. But according to Robert Whelan, “The disappearances cannot be accounted for by changes in climate or habitat, nor by theories of survival of the fittest. Furthermore, it was only the mammals that vanished, usually more resilient than other species. The only explanation is that the Indians “hunted them to extinction.” Gary Nabhan suggests that pre-Columbian North America was not pristine wilderness “for the very reason that many indigenous cultures actively managed habitats
and plant populations within their home ranges as a response to earlier episodes of overexploitation.” Native Americans followed a long learning curve and ecological “wisdom” was not found overnight. They did not live in static homeostasis with flora and fauna but rather, four to twelve million people of diverse cultures speaking over 200 different languages variously “burned, pruned, hunted, hacked, cleared, irrigated and planted in an astonishing diversity of habitats for centuries,” and not without negative ecological impacts. “Europeans actually set foot in second-growth forests, shrub-invaded savannas, or depauperated deserts.” Perhaps they were too focused on their own “development” agendas to notice that the land they took had already been managed.

The idea, therefore, that in contrast to European settlers native peoples were constrained by some cultural mechanism or set of religious beliefs from ravaging or over-harvesting resources is mistaken. Charles Kay boldly asserts in fact that Native Americans had no conservation ethic. “If a Native American could not find any game, it was not because he had overharvested the resource, but because he had done something to displease the gods. Since Native Americans saw no connection between their hunting and game numbers, their system of religious beliefs actually fostered the overexploitation of ungulate populations. Religious respect for animals does not equal conservation.” Robert Royal made the same argument. “When Indians wanted to cut trees, for example, they felt obligated to give to the spirit to whom the trees belonged something in return, lest he grow angry and remove all trees. In many tribes the spirit was offered tobacco, and then the trees were cut.” Native religious beliefs therefore did not hinder deforestation nor lead to a conservationist outcome. “In the space of three hundred years, aboriginal peoples wiped out most of the beaver and buffalo populations. Although these depletions have largely been blamed on the ‘white man’ for initiating the fur trade, there is no evidence that aboriginal peoples reduced their hunting or trapping activities or showed any philosophical opposition to this economic activity” (Widdowson and Howard). That aboriginals had a relatively lighter ecological impact merely reflected their lower population density and less advanced technology.

So much then for Lynn White’s regard for animism as a guarantor of ecological well being. But what of other non-Western traditions? What, for example, of the “Eastern” perspective of say Hinduism or Buddhism that stipulates a moral obligation to co-exist with nature rather than conquer it? Since that ethic is not manifest in South Asia’s headlong rush toward industrialization, one might instead see it as the idealized depiction of particular groups and individuals rather than a broader culture. Stephen Kellert examines different points of view in Eastern and Western philosophies. While Japanese philosopher Murato, for example, stated that “Nature is at once a blessing and a friend to the Japanese people... People in Western cultures on the other hand view nature as an object, and often, as an entity set in opposition to humankind,” Donald Ritchie argued that the Japanese appreciation of nature involved creating an art form around it based on an assumption of harmony, order and balance in the natural world. “The Japanese attitude toward nature is essentially possessive...Nature is not natural... until the hand of man... has properly shaped it... What has been termed the Japanese love of nature is actually the Japanese love of cultural transformation.... of a world which, if left alone, simply decays.”

In any case, as Stephen Kellert observed, “…these Eastern and Western conceptions of nature are associated with traditional religion and culture and their relevance to the beliefs and behaviour of people in modern society, particularly in highly industrialized societies, leaves room for debate.” Kellert revealed that research findings “…do not confirm the idealized descriptions reported earlier of traditional Eastern and Western conceptions of nature.” Citing a study that compared Japanese to American attitudes to nature and wildlife, he noted that “It might be relevant that less than 1 percent of the Japanese sample reported membership in a conservation organization as compared to 11 percent in the United States.” Post-Christian America 1, Post-Buddhist Japan 0.

Perhaps then Lynn White was wrong. Our ideas, at least our religious perspectives, be they Christian, Buddhist or Aboriginal, may not be so
decisive in shaping our behaviour toward the environment. Religious inhibitions and injunctions notwithstanding, with minor exceptions, our ecological track record has been disgraceful. Eileen Crist had it right. We are all guilty as charged: “One constituency – for example, men, Western culture, or corporations – cannot be held solely accountable for the dire plight of the greater-than-human world. The domination of Nature cannot be pinned on a particular constituency that derives power and profit from it. Rather, culpability lies in broad human participation, exceeding any particular groups or (at this historical juncture) culture, and crossing class, race, religious, national, ethnic and gender boundaries.” Perhaps the reason for that is the dominant religion of our time is not Christianity or Islam or any of the usual suspects, but the theology of economic growth, the belief that in a finite world continuing economic growth is desirable, necessary and physically possible going forward, and that the most obvious and insuperable shortages of natural non-renewable resources upon which our society depends can be avoided by improbable feats of human ingenuity. That somehow we can compensate for empty aquifers by inventing more efficient pumps, or by repealing the Second Law of Thermodynamics.

Many would argue that the answer can be found in fashioning some kind of cultural synthesis of Western, Eastern and Aboriginal traditions, that we must form ‘partnerships’ between different ways of knowing. It has become fashionable to argue that we must build cultural bridges between the scientific world view and the ‘traditional ecological knowledge’ (TEK) of indigenous peoples. “Many environmentalists began to reject science and technology and embrace the romantic idea that adopting aboriginal views toward nature was the key to living harmoniously with nature. These developments congealed in the 1980s when indigenous ways of knowing... became more widespread and were adopted by international development organizations” (Widdowson and Howard). Progressives and humanists who would balk at the idea of Creationists and proponents of Intelligent Design being given a podium in science classes suddenly exhibit no alarm at a pseudo-evidential infrastructure – TEK – popping up in university departments across the nation, and in other nations as well. Postmodernism has recaptured academia. All cultures can now have their own “science.” And science is now “Eurocentric” science (aka “Western intellectual elitism,” “parochialism,” “patriarchy” and “neo-colonialism”) which is thought to owe its prominence only to its “privileged” position in various government and corporate institutions and not because it offers verifiable explanations irrespective of cultures.

One wildlife biologist with Environment Canada expressed his frustration thusly: “My problem with the TEK stuff and this cultural scientific relativism is the use of the word “truth.” It reminds me of the way in which the religious right distinguishes between “fact-based” truth and other truth. Truth is truth. Just replace the term “truth” with “belief” in these cases and I would not have a problem. Western science, while not able to explain everything at least provides an approach to do so which is not biased by culture or other covariates.” He went on to say that “Unfortunately, this absurd New Age mentality has infiltrated the Canadian government and Environment Canada where researchers are forced to include TEK into about everything they do, especially in the Arctic where they are at the mercy of Inuit review boards vetting their permits, etc. Time and time again we see examples of how native peoples have got the wrong end of the stick by using strictly observation-based inference. Every day, the sun appears to move across the sky giving us the impression that it is orbiting the earth rather than the other way around. Similarly increased sightings of polar bears near communities due to ice loss gives them the impression that bears have actually increased in number. The Inuit community of Resolute thinks they can kill huge numbers of beluga whale and do not believe the genetics research showing that they are a unique management stock for other populations etc., and on and on it goes.”

It is certainly true that the Inuit survived for millennia with only traditional knowledge at their disposal. Indeed, this traditional knowledge was scientific to a certain extent. A hunter, for
example, might judge the safety of the ice in a
given area based on observation and previous ex-
perience. Such knowledge, however, was appli-
cable only to conditions in a local area that were
more or less stable over generations. But the 21st
century is an entirely new ball game. In a rap-
idly changing environment with rapidly growing
populations making use of a great deal of non-trad-
tional technology, traditional knowledge is not
a guarantee of environmental protection. Given
a conflict between traditional ecological knowl-
edge and satellite data, for example, I’d go with
the latter every time.

In their book “Disrobing the Aboriginal
Industry,” Professor Frances Widdowson of
Mount Royal College and co-author Albert
Howard devoted a chapter to a critique of TEK
(“Traditional Knowledge: Listening to the
Silence”). They cited several critical differences
between science and “traditional knowledge.”
The problem with ‘local knowledge’ is that its
observations are not systematically measured
and recorded, “which makes them very differ-
ent from scientific findings... there are numer-
ous problems with the accuracy of a group’s
collective memory when it is not recorded....It
is important that local impressions and opinions
about ecosystems are only hypotheses that must
be subjected to testing before being considered
knowledge, and this process cannot be under-
taken by local knowledge practitioners, regard-
less of their experience or ‘wisdom’.” They con-
tinue, “Thus one of the essential characteristics
attributed to science is its deployment of scep-
tical rigour to understand the material causes
of natural phenomena. Traditional knowledge,
however, is immune from questioning and resists
its methods being assessed. It is assumed to be
‘held’ by people with revered qualities, usually
elders, whose views must be uncritically sup-
ported. A common demand is that the spiritual
component of traditional knowledge should be
‘respected,’ and accusations of ‘disrespect’ meet
any attempt to ask questions about methodol-
ogy. Public ‘information sessions’ are structured
to prevent critical questions from being raised.”
According to the authors, “Political advocacy has
even intruded into the scholarly review process
so that it is extremely difficult to publish material
that is critical of traditional knowledge research.”
It is a disturbing trend, but a nearly universal
one, I fear. Some might say that anthropology
has become the academic wing of the indigenous
rights movement and that indigenous rights ad-
vocacy has displaced scholarship in many areas,
as witnessed by the slanderous scholarship on anthro-
pologist Napoleon Chagnon for his work on the
Yanomamo of Venezuela. As Lawrence Keeley,
author of War Before Civilization: The Myth of
the Peaceful Savage, confessed, “Like most ar-
chaeologists trained in the postwar period, I
emerged from the first stage of my education so
inculcated with the assumption that warfare and
prehistory did not mix that I was willing to dis-
miss unambiguous physical evidence to the con-
trary. If my initial lack of success in obtaining
funding for my own research made me aware of
the prejudices of most of my colleagues, my own
reactions and memories stimulated by my sub-
sequent success drove home the fact that I had
worn the same blinders.”

So back to the introductory question, a “spir-
itual awakening” or a scientific understanding
– what does the doctor order for Planet Earth?
I am for science. Not necessarily for scientists,
but for science. Not for scientists recruited for
mercenary objectives but for scientific method-
ology. And science, by the way, is not technol-
ogy. White’s fusion of the two is a common error.
As Evan Predavec said, “Science is not the same
as technology and we cheapen both by conflat-
ing them. The latest app for the iPhone should
not be put on the same level as an experiment
to test the theory of relativity. By placing them
together we also implicitly say that science is
a subject for techies and geeks. An understand-
ing of science is fundamental to comprehend-
ing what is happening in the world around us:
There is a basic significance and beauty in it
that should be important to, and accessible to,
everyone.” Including native elders and Southern
Baptists. Technology and engineering is about
building things but science is about learning to
think critically. And critical thinking is what
we most need. Not obeisance to ancient holy
texts or junk science which cloaks its lack of
understanding of material processes in some nebulous ‘holistic’ spirituality. We need a scientific understanding.

Science is the best friend that the environment has. Were that not true, the Harper government would not have gutted environmental protection, eliminated funding for a dozen Arctic science research stations, eliminated the climate adaptation research group within Environment Canada, eliminated scientists in Natural Resources Canada who studied ice core data, eliminated hundreds of jobs for scientists working for government departments that focus on the environment and wildlife and ended funding for the Canadian Foundation for Climate and Atmospheric Sciences. Meanwhile, money for “traditional knowledge” continues to flow.

It could well be that a greater proportion of indigenous than non-indigenous people experience a closer kinship with nature. But that greater attachment will not suffice to prevent nature’s destruction. Rapidly growing indigenous populations, coveting the same good things in life as everyone else will place increasing demands on the environment. Furthermore, persistent poverty on native reserves will continue to induce many native bands to form partnerships with corporate interests. The god of economic growth has displaced the traditional Creator, in practice if not in mythology, along with the divinities of indigenous and predominant cultures across the world. The economic priesthood that dictates the worship of the god of growth can only be overthrown with the aid of science, which tells us that there cannot be infinite growth on a finite planet.

No god will fix the ecological mess we – all of us – are making. As Stephen Jay Gould wrote, “We are one among millions of species, stewards of nothing...Nature does not exist for us, had no idea we were coming, and doesn’t give a damn about us.” That, in a nutshell, is the scientific view, which some may characterize as antagonistic to spirituality. But a scientific understanding of nature should not diminish an appreciation of it, nor fail to teach us the humble lesson that humans need to move from stewardship to “studentship” to better learn the ways of the Earth. As biologist Neil K. Dawe observed, “It is not the planet or its ecosystems that need stewarding, it is us.”

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References