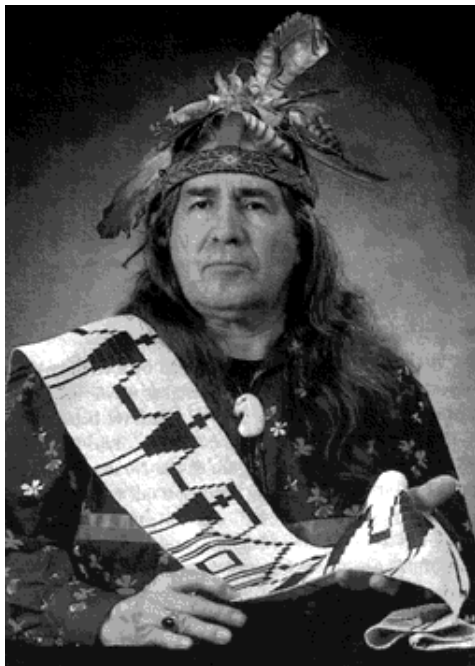


the following was published in *Akwesasne Notes New Series*,
Winter -- January/February/March -- 1996, Volume 2 #1, pp. 88-93.
and is reproduced here with permission.

World Bank, October 3, 1995 Ethics and Spiritual Values and the Promotion of Environmentally Sustainable Development "50 Years of the World Bank, Over 50 Tribes Devastated"

by Oren Lyons



"The World Bank and the IMF make decisions every day that affect the lives of hundreds of thousands of tribal peoples. The tribes are hardly, if ever, consulted. In the last 50 years the World Bank has approved projects that have had catastrophic results for indigenous people worldwide. According to the Bank's own figures, by 1996 it will have evicted 4 million people, many of them tribal"

-- Survival International Press Release
September 20, 1994

- Spirituality, Natural Law, and the Ethics of Authority
- Impact of Development
- Ethics
- There can be no peace as long as you make war on Mother Earth
- Proposal
- Haudenosaunee Environmental Restoration:
An Indigenous Strategy for Human Sustainability
- Ethics and the Human Genome Diversity Project
- Ethical Perspective
- Partial Chronology of Gene Patenting

Spirituality, Natural Law, and the Ethics of Authority

Thank you for this opportunity to comment on ethics and spirituality as it relates to the World Bank and its four regional banks: Inter-American Development Bank, Asian Development Bank, African Development Bank, and the European Bank for Reconstruction and Development.

Indigenous peoples have a long history of being victims of development projects throughout the world. This occurs consistently because indigenous peoples live in what is called undeveloped or underdeveloped territories. The natural resources, lands and water are the targets of development which can take many different forms. The extraction of oil, gold, other minerals, timber, or water results in a fundamental change in the natural environment in which indigenous peoples have culturally and physically adapted for thousands of years.

Water is life. People migrate to water and people live by water for its sustenance. The constant search for energy by industrial societies has impacted indigenous peoples throughout the world. Dams have become the primary source of cultural destruction to many indigenous peoples. Dams have brought about relocation and flooding of aboriginal lands, flooding of burial grounds and sacred sites. It has meant a change of habitat for the lives of fish, birds, and animals. It generally means a total disruption of the ecosystems sustaining life. The effect of this dramatic change upon indigenous peoples living a "sustainable" lifestyle based upon the natural laws of nature is catastrophic.

In industrial societies privilege is standardized with bigger bathrooms, bigger beds, and fatter, softer towels. For those born into this standardized life of privilege it is difficult to understand poverty because they have very limited frames of reference and therefore, show little tolerance for differences.

Impact of Development

Development poses questions not only of ethics but also of human rights, and even further, the rights of natural life co-habiting impacted areas.

It poses questions of the long term consequences of changing ecosystems; it raises the question of authority and from whence it is derived; it raises questions of morality and sovereignty and the notions of "sustainable development", "market", and "standards" of living. These actions pose questions that need attention and answers.

Projects of the world bank have been notorious for negative impacts on indigenous peoples' lives and aboriginal lands. We have been impacted by the mining of gold, uranium, and other minerals, roads and highways built to access raw materials not only remove minerals and destroy forests and fragment habitat for living creatures, but they also provide access to land-hungry individuals coming from deprived circumstances in deteriorating infrastructures of overpopulated cities and urban wastelands.

These people bring with them a fierce instinct for survival coupled with racism. They also bring relief to hard pressed governments overwhelmed with population demands for relief from the social pressures of unemployment and poverty. These people, desperate from poverty, have little regard for fragile indigenous communities living in the last reaches of the natural ecosystems of the world.

The equation is: short term economic gain based upon consumption, traded for the long term health and welfare of our grandchildren. They will be the ones to pay for the market-driven forces of greed.

We have all heard these words before, and by now it is regarded as the rhetoric of environmentalists and "unrealistic" advocates of world peace and harmony.

Ethics

What then are the ethics of your organization, regarding development of these projects? Who makes the decisions on these projects? What are the consultative processes with regard to indigenous peoples, their communities and their leaders? More to the point, do they have anything to say in this final determination of projects that impact indigenous peoples directly? Past performance by the World Bank says not.

I ask again what are your ethics regarding the rights of self-determination and the recognition of the homelands of indigenous peoples?

From whence do you derive your authority when you determine projects impacting indigenous peoples and lands? Is there in the lexicon of your organization a "moral" standard for indigenous peoples and their lands? Are there moral and ethical standards for any lands and natural resources?

There is a spiritual aspect to all of this from our, the indigenous peoples, perspective. Is there one from yours? If not, why not? Do you feel you need one? If you do then you acknowledge the jurisdiction of a higher authority.

I will make a simple illustration: We can agree that the new President of the World Bank is a good and just man who had done fine and good things for his human family, and even better for the natural world that provides for us all.

This merits recognition and we agree that there must be some way to reward him. We gather ourselves and agree that in carrying out his duties he must travel far and wide, and often finds himself in adverse conditions. We agree that since water is the first law of life it would be to his greatest interest never to have to worry about water for himself no matter where he is.

Therefore:

In total agreement with the highest authorities of nations and states we decree that with this diploma we have all endorsed: *He will no longer have to drink water.*

Happily he receives this decree and goes about his business. Several days later he is back severely perplexed and very thirsty, saying the decree does not work. Why? The answer is quite simple: We have exceeded our jurisdiction.

There is a higher authority and we are subject to its laws. There are no appeals courts for these laws. There is only the law and we will suffer in direct proportion to our transgressions against it.

Good people, we now talk about the ultimate authority, that law that governs all life on this planet. "This lonely blue dot on the fringes of a great galaxy" as my good friend Carl Sagan puts it.

A thousand years ago or more we the Haudenosaunee, the Iroquois, were given the rules and

processes of democracy . The principles of this democracy are: *Peace* in mind and community, *Equity*, which is justice for the people, and *the power of the good minds*, which embodies good health and reason.

This democracy established power in the people who joined of their own free will. It established the process of informed consent. It balanced the duties of governance between men and women. It gave women the duty of choosing leadership, that was then ratified by consensus of the people. It also gave women the power of recall. It provided the principle of representation of people in government, as well as accountability by leadership.

It established respect as a law. It established access to all leaders and an open forum on all issues, and it did not discriminate on the basis of gender or age. It promoted freedom as a responsibility and above all it was based upon the spiritual laws of nature.

This was a seamless government that inspired Benjamin Franklin to say "...this is a government that seems indissoluble." It inspired the roots of western democracy that we know today. All this from indigenous peoples.

This Democracy is all inclusive. Democracy is direct access to leadership. Democracy is equal protection under law. True democracy does not abide privilege, nor centralized control of power. Leadership is privileged only to serve. And the leaders needs come last after the people.

The democratic laws of most indigenous peoples arise from their understanding of the natural law and the regenerative powers that sustain life.

Therefore, "sustainable" in our terms means working with these laws that could be termed spiritual.

We were instructed to make all of our laws in concert with these principles thus insuring life in endless cycles. To challenge these cycles and the interdependent processes of life that sustain us will insure our defeat and demise on this Earth. We human beings can be productive and supportive to this network or we can be parasites. Right now we are parasites.

And we are, by sheer numbers and behavior, extinguishing other life forms. The natural laws says that no one entity can grow unchecked. There are forces that will check this unbridled growth, such as disease and lack of food and water. Privilege will not prevail.

There can be no peace
as long as you make war on Mother Earth

Evolution unfolds and has no interest in past or future states. There is just one Nature and the reality is now.

If quality of life is going to be considered on the basis of creature comforts, material accumulations, and the "free market", then the values of family, service, sharing, and

responsibility to society become secondary and subordinate to personal gain, personal wealth, and the consolidation of power.

So we again pose the question: From whence do you derive your authority? What are the principles of your governance? Are the ethics of your governance based upon laws of man or laws of nature? Is there a relevance between the two? We ask you.

Proposal

At the World Bank some things are improving. The World Bank's Vice Presidency for Environmentally Sustainable Development and its Division for Social Policy and Resettlement have undertaken several initiatives in recent years to improve the Bank's approach towards indigenous peoples. The Bank has begun Social Assessments to better identify indigenous peoples and other minority communities in the countries where the Bank has an active lending program. In Latin America, several training workshops have been held with indigenous peoples to strengthen their capacities to engage in designing development programs for the benefit of their own communities. These divisions, and especially Vice President Serag el Din, have often pressed inside the Bank causes and demands voiced by indigenous peoples affected by Bank-supported projects, such as the forgotten Batwa people of Rwanda, or the native people of western Siberia.

We would like to encourage the Bank to continue in this direction. We believe that small loans and direct funding to communities and indigenous peoples is a positive step for empowering indigenous peoples and others at the grass-roots level. This process will engage their genius for their own development. It empowers indigenous peoples in poverty-stricken communities immediately. We should not underestimate the uplift of spirit and empowerment that direct assistance brings to indigenous peoples and impoverished communities.

The principle of informed consent with full participation in planning, strategy, and implementation by indigenous peoples is essential for success in all proposed projects.

We understand that present World Bank policy excludes the participation of indigenous peoples of North America. This policy is particularly uninformed, insensitive, and debilitating to the efforts of American Indian nations' needs and realities. The disregard for treaties and the obligations therein, place Indian nations and peoples without options, and in despair. It is important to note that there are many worthy development projects by Indian nations that have no hope for fruition due to a wholesale lack of resources. And the disenfranchisement of North American native peoples by the World Bank's policy of not funding North American indigenous projects frustrates the development of sincere initiatives to develop sustainable standards of living on Indian lands.

One project dealing with sustainable development is the Renewable Energy Project of the Navajo Nation, in partnership with the Center for Resource Management. The need for support of Indian fisheries in northwestern North America, is vital.

A recent federal study cited Pine Ridge Indian Reservation, home to the famous Lakota people, as the poorest peoples in North America. Recent federal cuts in Indian programs of health, education, and subsistence of up to 60% are going to leave already destitute people without hope. In addition, the current momentum and ideology of a very hostile US Congress underscores the vulnerability of Indian nations to the whims of special interests driving federal policies. Many bills being enacted by the US Congress are frankly undemocratic. These bills uniformly pre-empt one's right to legal redress, and pre-empt one's right to know. As with an indigenous nation or peoples, a fair and equal opportunity to develop using the spiritual values inherent in their societies, could provide a meaningful example of an approach to development consistent with family values and democratic principles.

With this in mind, we ask that you consider the following project that was a total grass-roots North American Indian initiative based upon a commitment to act by the United Nations to indigenous peoples as stated in Agenda 21, Chapter 26, Recognizing and Strengthening the Role of Indigenous People and Their Communities.

Haudenosaunee Environmental Restoration: An Indigenous Strategy for Human Sustainability

To take responsible position in this idea of "sustainable development" the Haudenosaunee empowered The Haudenosaunee Task Force on Environment to do an assessment of our remaining territories.

We abided by your rules of science and government and established this study under the guidance and auspices of the United Nations Environment Project (UNEP). We have gained the support of the US EPA and the support of the New York State Environmental Conservation Department. The study operates under the guidelines set forth in President Clinton's Executive Order for Environmental Standards on Indian Territories.

This project meets this World Bank's criteria for science and scholarship. We ask you to fund this project as one that has been initiated by indigenous peoples, with the cooperation of the State of New York, United States, and United Nations Agencies.

What more would you need?

In contrast to the positive foregoing project, we bring before you an illustration of what we consider to be one of the worst market-based intrusions, and violations of indigenous peoples human rights by science: namely the Human Genome Diversity Project. This unethical project embodies the attitude of inherent racism underlying many high tech economic ventures that violate intellectual property and the very genetic fabric of indigenous peoples.

Ethics and the Human Genome Diversity Project

Within the last three years a group of anthropologists and geneticists from the US have set about trying to organize and seek funding for a project which has come to be known as the Human Genome Diversity Project. The project is international in scope, and is estimated to cost \$25 million in US dollars over a five-year period. In 1994 the Human Genome Organization, otherwise known as HUGO, brought the Human Genome Diversity Project under its auspices. At present, the Human Genome Diversity Project is undergoing review by the National Academy of Sciences Board of Biology in Washington, D.C. Project members are seeking formal approval from the National Academy of Sciences, after which monies will be sought from the US National Science Foundation (NSF), the US Department of Energy (DOE), and the US National Institutes of Health (NIH).

The goals of the project are as follows:

1. Understand the diversity of human genomes within the human species.
2. Clarify the history of specific indigenous populations around the globe, from a genetic perspective. Populations will learn what science believes to be their origin and history.
3. Preserve ("Immortalize") DNA cell lines of indigenous populations before these populations and/or their cell lines become extinct either through intercultural marriage, or through the literal demise of the population in question. Consequently, the Human Genome Diversity Project seeks to collect samples of blood, saliva, cells, hair roots, and other biological materials from 500 indigenous populations.

Ethical Perspective

During the evolution of the Human Genome Diversity Project the National Science Foundation provided \$1 million (US dollars) for convening four to five planning meetings around the world. Indigenous peoples were not invited to any of these planning sessions, nor were the substance and goals of this project ever made known to indigenous peoples. Yet in spite of this fact, the Human Genome Diversity Project is in the final stages of formal approval by the US National Academy of Sciences and several US funding agencies.

How is it that indigenous people can be deliberately precluded from discussions concerning their own bodies and their very genetic make-up? Why was the inclusion of indigenous peoples in discussions up front not the first order of business for the Human Genome Diversity Project?

Why too are indigenous peoples not a party to the National Academy of Sciences' review of this project currently underway, despite the fact that US Senator Daniel Inouye specifically requested that the National Academy of Sciences' review of the Human Genome Diversity Project include indigenous peoples and indigenous perspectives?

How is it that Anglo-European ethicists who embody Anglo-European perspectives and values, can be an integral part of the National Academy of Sciences' review of the Humane Genome Diversity Project, while indigenous values and perspectives are disallowed?

Indigenous peoples did not call for a Human Genome Diversity Project. Anglo-European anthropologists and geneticists initiated this project, and did so without consultation with indigenous peoples beforehand.

Anglo-European anthropologists, geneticists, lawyers, and ethicists are eager to "Immortalize" (preserve forever), DNA sequences of indigenous peoples on the verge of extinction (according to the Human Genome Diversity Project), yet remain unconcerned with preserving indigenous peoples and cultures.

What would the reaction have been if indigenous peoples planned to sample the DNA of all non-indigenous peoples worldwide, without broad participation and discussion, and without approval and involvement from the very beginning?

How is it that the Human Genome Diversity Project intends to look at the full measure of the human genetic diversity solely within the human genomes of indigenous peoples? Do indigenous peoples house the sum total of human genetic variability or diversity? That cannot be.

Furthermore, with a budget of \$25 million US dollar worldwide, over a five-year period, how is it that the Human Genome Diversity Project can hope to explore the whole range of genetic diversity in human populations in light of the fact that it will have taken the Human Genome Project (HUGO) 15 years and \$3 billion US dollars to construct a single human genome, that of an average Anglo-European?

It seems clear that from the perspective of time and money alone, the Human Genome Diversity Project cannot explore the full measure of human genetic diversity, especially by confining their efforts to indigenous peoples of the world, who also happen to be the least protected people on Earth.

Consequently, it seems clear then that the Human Genome Diversity Project will, of necessity, have to confine its efforts to sampling and analyzing sequences of indigenous DNA known to govern the function of specific genes or genetic function, by analogy with the Anglo-European human genome. Yet these very sequences of DNA which govern gene function are the very DNA sequences for which patents have been sought.

What does it mean, for example, that the US courts have decided that it is now legally permissible for individuals and corporations to patent DNA sequences obtained from other human beings? Do we no longer own our sacred bodies? Are we no longer the owners and stewards of our very genetic makeup?

What does it mean, practically, ethically, and legally, for an indigenous person to consent to give DNA samples to the Human Genome Diversity Project? Does this consent open the doors for others to patent sequences of his or her DNA? How would one know if part of one's DNA sequence has been patented at some point in the future? What recourse would

one have nationally and internationally, if one discovered that part of his or her DNA was subsequently patented?

Whose property is one's DNA, and does consent to give a blood sample or a DNA sample constitute relinquishing one's right of ownership of his or her DNA?

Who will have access to one's DNA, if one agrees to have one's blood sampled?

What are the ramifications of the insurance industry, the law, one's employer, and others having access to one's DNA or genetic information? What about discrimination on the basis of genes and sequences of DNA?

In England and Wales people suspected or convicted of certain offenses, are now required to give a sample of blood or tissue for DNA analysis. This information will then be filed for future reference.

What are the implications of the case of John Moore versus the University of California over the ownership of cell lines taken from John Moore during a routine medical examination, and subsequently patented and used commercially by others, for profit?

Partial Chronology of Gene Patenting

In the 1970's Dr. Cesare Sirtori of the University of Milan discovered that some residents of a small Italian village were carriers of a gene that makes them produce low levels of high density lipoprotein (HDL), which protects them from heart disease. This discovery led to the patenting of this gene. Dr. Sirtori now works for Kabi Pharmacia of Sweden which hold US and European patents on the AI-Milano gene with plans to commercialize it.

In 1991 the US National Institutes of Health applied for patents on more than 2,800 genes and DNA fragments found in the human brain. Between 1991 and 1992 researchers at the US National Institutes of Health (NIH) filed for patents on nearly 7,000 partial DNA sequences for human genes. The patents were ultimately rejected by the US Patent and Trademark Office, and NIH abandoned the patenting of human gene sequences. Subsequently, leading genome researchers such as Craig Venter (NIH) and David Galas (US Department of Energy) joined private genomic companies. In 1993 Venter became part-owner of Human Genome Sciences, Inc., while Galas joined Darwin Molecular Genetics.

In 1993 SmithKline Beecham (USA) signed a deal with Human Genome Sciences, Inc. (HGS) worth (US) \$125 million. SmithKline will get first right to develop and market drugs, vaccines and diagnostic products and services based on human gene sequence data discovered by HGS.

In 1994, William Gates and Paul Allen, billionaire co-founders of Microsoft Corporation, invested (US) \$10 million in Darwin Molecular Technologies, Inc.

In August of 1993 the US government applied for US and world patents on the cell line of a 26-year old Guaymi Indian woman from Panama. Under mounting international pressure the US withdrew its claim in November, 1993.

In January, 1994 the US Department of Health and Human Services and the US National Institutes of Health filed a patent application for the human T-cell line of a Papua New Guinea individual. Blood samples were originally taken in 1989 from 24 people belonging to the Hagahai people of Madang Province, New Guinea. The cell line is potentially useful in treating or diagnosing individuals with an HTLV-1 variant virus. This virus is associated with adult leukemia and with a chronic degenerative neurological disease. The cell line has potential value in understanding the enhancement or suppression of an immune response to this virus.

Also in January 1994, the US Department of Commerce filed a patent claim on the human T-cell line of a 40-year old woman from Marova Lagoon in Western Province, and that of a 58-year old man from Guadalcanal Province, of the Solomon Islands. Blood samples were taken in 1990. This cell line may also be useful in producing vaccines and/or diagnosing human T-lymphotropic virus type I. Later, US Secretary of Commerce, Ron Brown, dismissed the protests of international governments, indigenous peoples, and NGO's by stating that "Under our laws, as well as those of many other countries, subject matter relating to human cell lines is patentable and there is no provision for considerations relating to the source of the cells that may be the subject of a patent application."

In 1995 the case of John Moore versus the University of California was still pending. In 1976 surgeons removed cancerous spleen cells from a leukemia patient, John Moore of California. Unknown to him at the time, Moore's doctors later developed a cell line (MO) from a routine cell sample which was found to produce high levels of useful proteins. A patent for this cell line was granted in 1984. Also in 1984, John Moore filed a lawsuit claiming that his blood cells were misappropriated, and that he was entitled to share in the profits derived from the commercial uses of his cells. In 1990 the California Supreme court ruled that John Moore had no rights to the patented cell line extracted from his blood sample. The court stated that he did not have the rights of ownership over his cells after they had been removed. He did however, have the right to sue his doctors for failing to inform him of the potential commercial value of his cell line. The basis of John Moore's so-called consent was a key issue in this case.

In 1995 a US appeal court ruled that the discovery of a novel gene sequence cannot be described as obvious, and therefore, can legitimately be included in a patent, thus opening the legal floodgates to the broad patenting of human genes and partial gene sequences. At the time of this ruling Human Genome Sciences (HGS) Inc. in Rockville, Maryland had over 70 patent applications pending on partial and full gene sequences awaiting a ruling from the US Patents and Trademark Office (PTO).

University-based scientists working with human DNA sequences produced (cloned or replicated) by HGS's (Human Genome Sciences Inc.) Institute of Genomic Research (TIGRE) must sign an "Option agreement" with HGS, under which HGS will have an exclusive option on any patents arising from research using their database of genetic sequences.

In 1994 scientists from the University of Utah and a company called Myriad Genetics Inc., discovered the first of the genes linked with inheritable breast cancer (BRCA1). The identity of the gene is now the basis for a diagnostic test that will then be patented. That same year Myriad scientists also reported the discovery of a tumor suppresser gene (MTS1) that seems to be involved in the formation of nearly all cancers. Myriad has also filed for patents on the gene.

More than 100 human cell lines are currently the subject of patent claims in the United States. Some have estimated that the US Patent and Trademark Office has now issued more than 1,250 patents on human gene sequences.

In 1994 a California-based company called Incyte Pharmaceuticals applied for patents on over 40,000 cloned DNA templates.

On December 1, 1994, Rockefeller University researchers in New York City announced the discovery of the "obesity gene", and although a patent has not yet been granted, Amgen (a pharmaceutical company based in California) has already agreed to pay Rockefeller University \$20 million for the licensing rights to the gene, plus additional payments that could total \$90 million.

In September, 1994 Sequana Therapeutics (a California-based genomic company) announced that DNA samples obtained from 300 inhabitants of Tristan da Cunha, may provide the company with information they need to locate, identify, and eventually patent the gene or genes that predispose people to asthma. The company is collaborating with the Samuel Lunenfeld Research Institute of the Mount Sinai Hospital in Toronto, Canada. If successful in identifying the gene or genes, Sequana Therapeutics will file for a patent in Sequana's name and share economic benefits with the Lunenfeld Institute.

In February 1994, the Human Genome Organziation (HUGO), the parent organization of the Human Genome Diversity Project, concluded that "the patent system is the mechanism of excellence for commercializing the results of the human genome project".

Commercialization of the human genome "does not require reinventing the internationally proved, 200-year-old patent system, but simply adapting it."

Oren Lyons, Onondaga Nation - Haudenosaunee