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ONLY THREE WORDS A presentation to His Holiness the Dalai Lama Columbia University, 1994 Apela Colorado, Ph.D.

# **ONLY THREE WORDS**

"...so, the old man asked, Which part of the Pipe do you think is most important?....The Stem because it's the living part...."

### INTRODUCTION

I am Opispheyiehawie, Turtle clan of the Oneida Nation. I am able to speak today because, my Grandfather who was the sole remaining traditional person in my family, gave me a message. It was the winter of I961; my Grandfather was dying of cancer, yet, in the midst of a blowing snowstorm, he travelled thirty five miles to talk with me. The message consisted of only three words but through those words, our traditional mind, culture and science embraced me.

#### WHAT IS INDIGENOUS SCIENCE?

It's good to be here because New York State and Southeastern Ontario are Iroquois traditional homelands. Much earlier in our history, possibly 15,000 years ago, we originated from the South. But long before that, we originated from the Stars and the first woman. Our Creation history contains detailed information of that first epic journey and tells us how the first woman and nature conspired to make life on this Earth.

Movement has always been key to the identity and science of Iroquois peoples. In fact, the Thanksgiving prayer, central to our lives and ceremony, completes each stanza or round with the verse, "those who move about the face of the Earth". The movement is not random. It is sequential and orderly because the balance of life depends on our doing it right. Doing it right means moving/acting in accordance with the great cycles of life recorded in complex calendrical systems; oral history; menemic devices, songs, dances, chants and art.

Just like Western science, indigenous science relies upon direct observation; there are tests to insure validity and data is used for forecasting and generating predictions. Individuals are trained in various specialisations for example, herbalists, weather specialists, mental health and time keeping. Unlike western science, the data from indigenous science is not used to control the forces of nature, instead, the data tells us ways and means of accommodating nature. Other critical distinctions include the following:

- I. The indigenous scientist is an integral part of the research process and there is a defined process for insuring this integrity.
- 2. All of nature is considered to be intelligent and alive thus active research partners. We do not act on nature rather we communicate and work with nature.

- 3. The purpose of indigenous science is to maintain balance.
- 4. Compared to western time/space notions, indigenous science collapses time and space with the result that our fields of inquiry and participation extend into and overlap with past and present.
- 5. Indigenous science is concerned with relationships, we try to understand and complete our relationships with all living things.
- 6. Indigenous science is holistic, drawing on all the senses including the spiritual and psychic.
- 7. The end point of an indigenous scientific process is a known and recognised place. This point of balance referred to by my own tribe, as the Great Peace, is both peaceful and electrifyingly alive. In the joy of exact balance, creativity occurs, that is why we can think of our way of knowing as a life science.
- 8. When we reach the moment/place of balance we do not believe that we have transcended we say that we are normal! Always we remain embodied in the natural world.
- 9. Humour is a critical ingredient of all our truth seeking, even in the most powerful rituals. This is true because humour balances gravity.

### HOW TO MAKE INDIGENOUS SCIENCE

The centre of indigenous science is a way of thinking and being that we call, "the Good Mind". The architecture of the good mind consists of the Four great directions, a centre (5), the Earth below (6) and the sky above (7). The interface of the Directions is the place of movement, adjustment, reception, containment and movement again. This cosmic wheel is the generator and calibrating process of the Good Mind. When we are centred in the wheel, we are in the Good Mind. Each Direction is a teaching or major force in life but the Directions not only develop us, they also stabilise by resisting our efforts to become out of balance.

Why do we believe in this process? You will note that I have enumerated the directions. Each Direction refers to specific understandings it also refers to the heavens and to important stars and constellations in the heavens. When we look skyward, we see the harmony of the great cycles; the creation of the universe unfolding and we conduct ceremonies to conjointly renew creation. And this is all that is required of us, to give thanks. As we do so, we Iroquois follow the path of the First Woman on her journey from the sky world. This keeps us close to our Mother and helps her continue living. And this is why the Europeans discovered paradise in the New World.

## **EXAMPLES OF INDIGENOUS SCIENCE**

Because indigenous science looks so different from other sciences, it may be useful to consider expressions of the science.

- 1. In Polynesia, Native people are able to navigate thousands of miles of open ocean without benefit of instruments. To make successful landfall, a navigator must be able to read the stars, weather, wave action, patterns of birds and fish and must be able to project himself beyond the horizon, to see what cannot be seen. The ability to project oneself is an example of the way spiritual training complements rational thought.
- 2. Oral history extends back (in linear time) so far that it contains records of what life was like before, during and after the last ice age. Some tribes' history goes back even farther.
- 3. The Meso-American calendar system, as accurate as an atomic clock, records and sychronizes 13 calendars which include the movements of planets, stars, solar flares and civic fluctuations. The calendars are said to work in 26,000 year cycles.
- 4. The healing practices of indigenous science are the basis for at least 25% of modern drugs. Traditional healers in Indonesia and Polynesia are able to completely heal fractures in one treatment and Native American healers are able to accurately diagnose illness within 30 seconds.
- 5. Perhaps the best example of indigenous science is sustainable communities and environments. The New World that attracted the European was a pristine ecosystem derived from thousands of years of indigenous science practices.

## INDIGENOUS SCIENCE IS ENDANGERED

For nearly five hundred years, Native people and our knowledge systems have been under assault. It is estimated that nearly 80 million American Indians were exterminated in the civilising of the West. Today our land base is only a fraction of our original homelands and our beautiful systems of ceremony and science are fragmented. In other parts of the developing world, the situation for tribal people is even more desperate. As Third world governments render up their natural resources, tribal peoples are displaced; murdered and live in prolonged states of terror. Under such conditions, ancient life sustaining practices and knowledge are destroyed.

In 500 years, the situation can deteriorate until, like my Grandfather and I, there is only one traditional person left in a generation. Despite such conditions, traditional practitioners struggle to complete the ceremonial cycles. As we see it, our minds create biospheric reality and our ceremony insures that the reality is LIFE.

### THE HISTORICAL RELATIONSHIP OF INDIGENOUS AND WESTERN SCIENCE

There has always been a relationship between indigenous and Western sciences but the relationship has not been good. It was technology that permitted the discovery,invasion and the industrial development of the North America. The shifting paradigms of the social sciences were projected unto Indians and so became the foundation for government policy and popular opinion. Scientific racism, the prevailing view of nineteenth century social science, assumed that all humanity could be divided into superior and inferior stocks. As late as 1922, ethnographer Baily wrote:

From the statistics which relate to the two so called primitive races, the African and the American Indian, it appears that the primitive could not under any present circumstances attain the average intelligence of cultured races. This appears to be so, not because there is any detailed information as to the potentiality of the primitive mind, but because mental deficiency is so profuse that their average intelligence must be inferior to that of average European intelligence.

Supported by this science, relations with Indian people were organised under the Department of War; the U.S./Indian policy was genocide and assimilation. In the popular press, it became known as the "Vanishing Indian". There is no exact count or measure of the lives lost or the suffering inflicted on Native people under the rule of this paradigm of science.

Under the sociocultural paradigm of the I970's, millions of dollars went into western researches of Native Alcoholism; little went for treatment of our leading cause of death. In an international addictions gathering in London, scientists were challenged for the lack of sensitivity and responsiveness. Here is the retort:

What successful intervention has been offered on the basis of the sociocultural model?
...I was terribly concerned that...sociologists or social scientists in general were being taken to task for something that most of us don't ever pretend to do...[Jessor and Jessor, 1980, p. 180]

The objectivity/relativity of conventional science created a moral agnosticism in regard to Indian people but not all scientists were comfortable with the situation. A Dr. Edwards, present at the same conference said:

...society is engaged in the pursuit of pleasure and the pursuit of profit. And we simply haven't got the power to carry through the implications of our researches to altering the larger shape of society. You may feel that is a terrible surrender. In some small part of my activities on certain occasions, I go on trying to influence the shape of society I live in....[Jessor and Jessor, 1980, p.195]

When scientists. like Edwards, act from informed, compassionate interest in Indian people, the results are stunning. In the I930's, John Collier. a young, utopian, social scientist was appointed Commissioner of Indian Affairs. Collier applied social science principles to the development of Indian policy. The result that - tribal governments were restored, the theft of Indian lands was halted; the policy of transferring Indian children to boarding schools far from home was discouraged and the practice of

Native arts and crafts became legal.

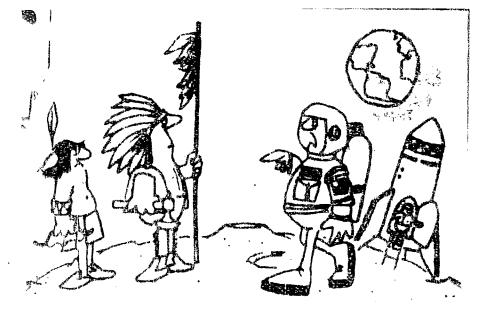
## CAN INDIGENOUS SCIENCE LINK WITH WESTERN SCIENCE?

Since the I970's, the situation of North American people and knowledge has undergone changes. The passage of the American Indian Religious Freedom Act in I978 and the I960 repeal of the Potlatch Laws in Canada meant that traditional ways could again be practiced without punishment from the Department of Indian Affairs. Universities began to admit Native students in the I970's [largely due to the Civil Rights/American Indian Movements] which created a cadre of cross-cultural communicators and the I960's counter-culture popularised (for better and worse) Native American spirituality and culture. The media has also brought Native American issues to the light of day. While the struggle to hold our remaining lands and culture continues, we are no longer invisible and our voice is going out across the land. Some people are even listening!

The growing crisis of the environment sparked serious interest in Native Knowledge. The 1982 Brundtland Report or the World Commission on Environment and Development noted that the tribal peoples of the world were the last reservoirs of sustainable knowledge. The Report called on scientists and the global environmental action community to learn from tribal people.

The I993 Earth Summit again recognised the critical importance of indigenous knowledge. Principle 22 of the Rio Declaration, the Preamble, Articles 8 and 10 of the Convention on Biological Diversity; the "Forest Principles" and Chapter 26 of Agenda 21 sharpen Brundtland's recommendation.

Although the need for dialogue between the sciences has been identified for the survival of humanity, little of substance has occurred. Why is the dialogue so hard? For one thing, there is no infrastructure to facilitate communication or collaboration. Secondly, western scientists cannot simply extract or expropriate indigenous knowledge; the only way to get the traditional wisdom is through relationship and interaction with Native people. This is problematic since there is little cross-cultural trust or experience with each other. In fact, the Western Mind has made a metaphor of Native people and indigenous knowledge. Historically, we are the shadow side of the West. As such, we represent all things that are primitive, out of control, irrational, savage, emotional, intuitive, feminine, superstitious etc. In short, we represent all that Newtonian-Cartesian science struggles to control! A cartoon in a recent tabloid captures the essence of the cross cultural scientific conundra.



"Oh, no! - Not again!"

NATIONAL ENQUIRER

Yes. Again. Today we try again to answer the question posed when the first Europeans arrived. The question is, WHO ARE YOU? This is the first step in entering the indigenous holistic mind. No elder or ceremony can continue until one is able to answer this question. Knowledge is considered to be a living entity. We ask permission to enter Her and we must be able to specify our name, Nation, clan and have a clear question or reason for wanting to enter. Knowledge is also sacred because it is the science of life; therefore, we must be keenly aware of our participation with Her.

### THE NEED FOR AN INTERFACE WITH INTEGRITY

The question, "who are you" and it's collaries -" who are you in relationship to this land and way of knowing" and "who are we together" requires both a forum and a process.

Indigenous knowledge cannot be decontextualized or shared piecemeal because it loses it's effectiveness. A case in point is traditional healing. Plant substances may be extracted mechanically but without the rituals and community, the healing will never be complete. This is not a mystical point. When the American Cancer Society discovered the curative properties of yew wood, they did not consult with local Native people. The result is, extreme waste of an endangered tree and very limited effects because they don't know what to mix it with. Native traditionalists will not provide the information because they have not been asked. This tragedy, this loss for the thousands of people with cancer (particularly prostate cancer) has been repeated many times throughout our shared history. The ongoing destruction of the environment and the genocide of tribal people globally narrows the possibility for the knowledge and our species to survive. It is truly time for a change.

### TOWARDS A NEW SCIENCE

In an effort to make a scientific interface, a small group has created the Worldwide Indigenous Science Network [WISN]. WISN has worked with Canada UNESCO to

establish a policy and boreal research centre in Ottawa and a Master's and Doctorol programme in Traditional Knowledge at the California Institute of Integral Studies. A marine ecology centre is being created in Indonesia. In Mexico a centre for the healing arts being built and pre-project planning is scheduled for Australia and Japan. To provide visibility and strength to our effort, we have applied to UNESCO for a Chair in Traditional knowledge. This Chair will need to be situated where is can provide a strong publications effort, an administrative base and attract western scientists willing to engage in transformative work.

### WHAT MIGHT A NEW SCIENCE LOOK LIKE?

- \* Extend calculations across seven generations, in order to assess impacts.
- \* Derive global data sets from ancient calendrical systems and oral histories; it would be possible to know how things looked and behaved before, during and after great environmental changes, such as the ice ages.
- \* As a result of computer analysis of Native calendar systems, data could be generated to address current ecological crises.
- \* Sharpen one's ability to perceive flow by the study of a Native, verb rich language.
- \* Experiment with the 20 base mathematical system of Native people to explore possible environmental research applications.

Perhaps the greatest reward from a convergence of sciences would lie in personal growth and satisfaction from being able to develop and apply new areas of consciousness in one's work.

For Native people, the greatest reward of collaboration would be the recognition of our humanity, intelligence and the opportunity to apply our knowledge in a dignified and supportive milieu. Hopefully, the infrastructure created by this collaboration would slow or halt further destruction of Native lands/natural habitat and possibly stem the genocide of tribal people living in other parts of the world.

For the West, science has been like a religion; it is the primary way to look for truth. Despite the technological devastation of the earth, science has not lost all of it's glow. For much of the developing world and the tribal peoples in those areas, we, western and indigenous scientists alike are the hope of the world. Let us look to the works of Lawlor, Schele, Peat, Halifax, Thomas Berry and others who try to write the new science; let us acknowledge the total commitment of people like Bokara Legendre and let us turn to the Iroquois process of "putting our minds together to be of one Good Mind."

### CONCLUSION:

What my Grandfather said, that snowy day, long ago, was this:

REMEMBER THE PIPE.

To Remember the Pipe, is to join the living part - the stem, with the stone bowl - mother Earth. In this instance we are attempting to join the linear with the holistic. If we succeed in this, a powerful and transformative process will begin. Let us light the Pipe of peace and breathe deeply the breath of "Amerikua," land of wind and freedom, land of the Eagle. Let us imbue the American experience with life, for the sake of our children and the sake of our land.

Nyaweh

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