

Native Americans' View of Science

Vera Kolb
Department of Chemistry
University of Wisconsin-Parkside



Introduction

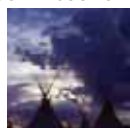


- This project is a continuation of my interest in Native Americans herbal medicine. I have researched the herbal medicine of Wisconsin Native Americans and have found that the plants used had indeed biologically active ingredients, whose activity has been confirmed by the pharmacological studies.

Reference: V.M. Kolb, "Herbal Medicine of Wisconsin Indians", *Progress in Drug Research*, **58**, 52-97 (2002).

My participation in ASES Meeting

- I have participated in the Regional Meeting of the American Indian Science and Engineering Society, at the University of Minnesota, April 10-11, 2009. This was the Region 5 meeting, which included Wisconsin and neighboring states.



Native Americans' view of science, as explained by Mark Bellcourt

- It is difficult to translate the noun "science" to Ojibwa or other native American languages, since in those languages science is act of knowing, or a process in which the knowledge is sought.
- *Western science* produces knowledge as commodities to be used by anyone.
- *Native Americans' view*: Knowledge is given to people to use it properly.



Native American Holistic Views

- Native Americans view ecology as a holistic and collaborative science. People are in harmony with the environment. When utilizing medicinal and other plants, care is taken never to use more than is needed. The natural rhythms of the life which humans depend on are respected.



More comparisons of Western and Native American views of science

- *Western view*
 - Science is objective (set up by Frances Bacon, so that the Church could not control it).
 - Time is linear.
- *Native American view*
 - Spirituality is a part of the science action.
 - Time is related to natural cycles.



How do we teach science from an Indigenous prospective?

- Shape the teaching to include the native perspective;
- When possible, use Native language (for numbers, for example);
- Point out different ways of knowing (for example, Maya knew that the universe is expanding).



The resource for the Native American Views of Science

- Mark Alan Bellcourt: "*Perception of Native Americans: Indigenous Science and Connections to Ecology*", Doctorate of Education Thesis, University of Minnesota, Minneapolis, 2005.



A research project presented by a Native American student

- *June Sayers*, Hydrology major, St. Cloud State U., Minnesota: She has designed an outdoor stream lab, and has researched the ground water.
- The presentation was well received and many questions were asked, reflecting the interest of the audience in preservation of water purity.



Miscellaneous information from the meeting

- The participants were almost exclusively students, from 2-year Tribal colleges, 4-year colleges and some beginning graduate students.
- 5-9th grade students (mostly family members of the participants) were also present. They attended all lectures and were extremely respectful and attentive.
- There were many tribal college- and other students who were substantially older (some over 40 yrs old) and with families/children obligations.

Miscellaneous information from the meeting, continued

- The main speakers had PhD's.
- In the ice-breaking welcoming session, a superb experimental chemistry demonstration was done, and we all participated.
- Useful talks on careers by the Navy and company 3M were given.
- Resume building session for all the participants was conducted.

Acknowledgments

- Thanks are expressed to Eugene Fujimoto from the UW-Parkside Office of Equity and Diversity, for sponsoring my trip to AISES.