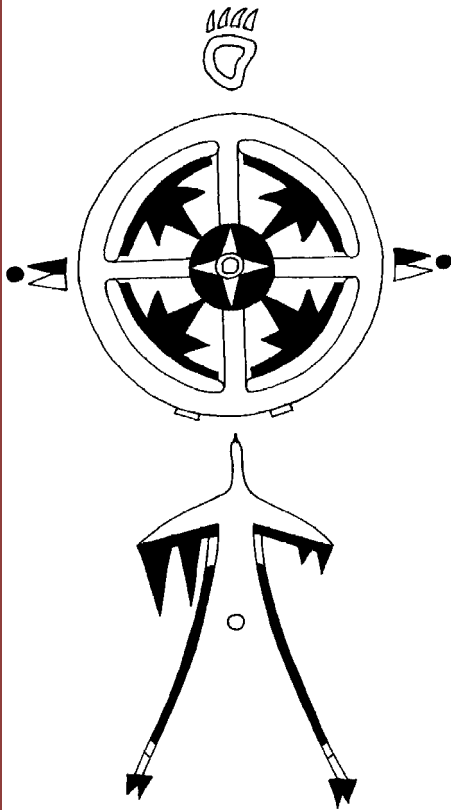


# EARTH MEDICINE



**October  
1996**

Haskell Environmental  
Research Studies Center  
and  
Great Plains-Rocky Mountain  
Hazardous Substance  
Research Center

## Summer travels in Indian Country explore environmental issues

by Micheal Tosee, Haskell Indian Nations University

**D**uring Summer 1996, fellow Haskell Environmental Research Studies (HERS) staff members Bill Curtis, Dana D'Zurella, and I traveled to tribal reservations and communities to assess environmental concerns that presently exist on tribal lands. Our excursions occurred over a three-week period beginning July 22, when we traveled to the Seminole Nation at Big Cypress and Hollywood, Florida. On July 28 we visited the Coeur d'Alene Tribe, whose reservation lies in and around the city of Plummer, Idaho. Our travels concluded with a trip to the Mohawk Reserve at Hogansburg, New York, on August 5.

The purpose for these visits was to collect and expand the environmental information and database that HERS personnel had collected from previous visits to Indian Country. Our visits were sponsored by the Technical Outreach Services to Communities Program, based at the Great Plains/Rocky Mountain Hazardous Substance Research Center. By seeking and gathering information about the current environmental challenges that tribes are facing, we are hoping to establish the groundwork for possible technical assistance and to act as a conduit for suggestions or recommendations regarding remediation. Most importantly, with regard to our goals and objectives, we are using the information to better inform the public and to teach our Indian students about the serious side of environmental neglect and the harmful consequences that this neglect can have on people's lives and traditions.

Our travels were truly a learning experience as the tribes allowed us a close look at their concerns. We were given the opportunity to listen to their feelings about environmental issues presently affecting their lives. At each location, the one overriding goal of the tribal people was to strengthen and retain all aspects of cultural integrity and history. The tribes are attempting to hold on to their cultural and historical significance by pushing for the environmental integrity of their homeland. They hope to accomplish this by getting directly involved with state and federal officials.

The Seminole Nation representatives felt strongly about the position they have taken regarding their environment. They feel that they have been accepted as a partner with state and federal officials in deciding what is the best way to preserve and assure high water quality standards for the Everglades. The Everglades water system flows directly through the Big Cypress Reservation (Seminole). According to Seminole Nation representatives, any contamination of this water system will have a detrimental effect on the Seminole Nation by impacting the tribe's cultural way of life. Presently, the tribe is offering direct input on ways to reduce and regulate phosphorus run-off created by the growth and harvesting of 470,000 acres of sugar, 60,000 acres of vegetables, and 5,000 acres of rice just north of their reservation homes. With recognition and regard for tribal views comes a sense of optimism for their future.

Like the Seminole, the Coeur d'Alene Tribe of

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## Partnership gives students practical experiences

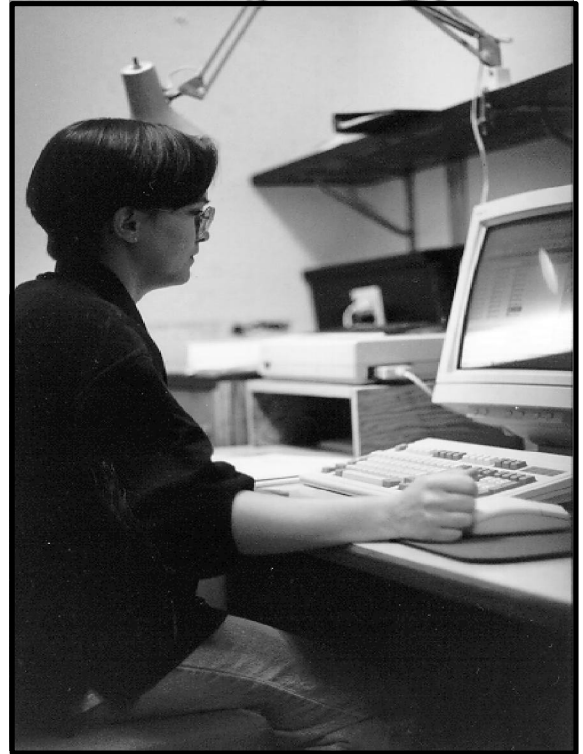
**H**askell Indian Nations University (HINU) and Boeing Commercial Airplane Group are entering their third year of partnering in an environmental research project designed to encourage Native American students to enter science careers. The partnership will provide HINU faculty and students with funding to upgrade science labs and research capabilities. The project also provides summer internships for students at the Boeing Plant in Wichita, Kansas.

The partnership's overall challenge is to give students practical scientific experience. This summer two HINU students, Graham Snelding and Steve Brown, worked with Boeing Safety, Health and Environmental Affairs staff members in Wichita, Kansas. The students spent four weeks engaged in various activities, including field work and data analysis.

On HINU's campus students are trained in applying statistical methods and computer analysis to the remediation of petroleum-contaminated soils. Students also learn how to study applications of spreadsheet programs for environmental analysis.

HINU students will continue data analysis from August to December 1996. This experiment will determine the use of critical environmental and biological factors in petroleum soil contamination.

The primary goal of the project is to provide Native American students with real life experiences in science, engineering and math careers. The need for Native American students in these fields is high



**A student at work in the Boeing Project lab on HINU's campus.**

because many Indian Nations are faced with serious hazardous waste and related environmental problems. Many tribes would like to have professional Native Americans take an active part in the environmental remediation of their lands. ■

## Coeur D'Alene working to remediate lake area

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Idaho continues to initiate attention to their environmental concerns through federal and state regulatory agencies. They are seeking to have the waterways in their area cleaned of two heavy metals, lead and zinc, that have filtered downstream after years of mining. The debasement of the rivers, streams, and lakes dates back to the late-nineteenth century when the mining towns of that area were booming. Little regulation took place. Although mining is no longer the industry it once was in the area, according to Coeur d'Alene tribal representatives, the years of degradation have left many waterways highly toxic and uninhabitable for vegetation growth, fish, and wildlife. In fact when viewing a river from along the bank, a sign posted by the state of Idaho indicated that people should "...not drink the water from the river, even if filtered." The tribe has found this situation intolerable and is seeking caretaker status

for the restoration and clean-up of Coeur d'Alene Lake. The lake is an area that has a strong cultural and historical connection to the tribe that dates back thousands of years.

We found the environmental jeopardy facing the Mohawk Nation to be extremely serious. The Mohawk reserve is a 25-square mile area that spans the St. Lawrence River and the international border between New York and Canada. The area is home to approximately 8,000 Mohawk tribal members. According to Mohawk Nation representatives, contamination of their land and their environment is directly related to industrial development near the Mohawk reserve. During the late 1950's General Motors, Reynolds Metal Corporation, and Alcoa Aluminum Corporation developed industrial complexes along the St. Lawrence River and near

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## Spring environmental seminar series planned

Production work has begun on the Native American and Other Minority Institutions (NAOMI) Spring Seminar Series. The seminar series, "All Things Are Connected: The Sacred Circle Of Life," is a four-part series that will examine the themes of land, air, water and living beings as they relate to environmental issues that Indian Nations are addressing. The series is being produced by the Haskell Environmental Research Studies Center and Haskell Indian Nations University (HINU) in Lawrence, Kansas.

Two of the four programs, the first and fourth, will be live satellite uplink programs. The remaining programs will be videotaped in HINU's television studio. The first program will feature a 15-minute segment narrated by Henrietta Mann (Cheyenne), former Dean of Instruction at HINU. Using the rolling prairie of the Flint Hills in Kansas as a backdrop, Dr. Mann will discuss the ways in which the health of plant and animal species depends on the condition of the land, air, and water. Dr. Mann's introduction will be followed by a panel discussion of issues, implications and challenges Indian Nations are facing in following their ancient environmental philosophies.

The second program, "The Land: Planning for Future Generations," will consist of a moderated panel discussion of tribal professionals knowledgeable of environmental problems associated with soil contamination. The key issues raised will revolve

around pro-active steps that tribes can take to protect the land, including the importance of developing land use plans and policies for reservation areas.

"Water: Going Beneath the Surface of an Issue," the third program, will incorporate footage of the wetlands of the Seminole Nation in Florida and the St. Lawrence River on the St. Regis Mohawk Reserve in New York and Canada. This program will discuss the importance of tribal access to environmental technologies in relation to planning and management strategies for the effective exercise of tribal sovereignty.

The fourth program, "Air: Ensuring Quality for the Future," will feature the activities of the Navajo Tribe's Air Quality Control Office. Like the first seminar program of this series, the program will be a live satellite uplink.

The first program of the "All Things Are Connected: The Sacred Circle Of Life" series is tentatively scheduled to air in mid-to-late January 1997. The second and third programs will be filmed and distributed to NAOMI Seminar Program participants in February and March. The series will culminate with a second and final uplink program in mid-April.

The NAOMI Seminar Program is coordinated by the Haskell Environmental Research Studies Center. Those interested in participating in the "All Things Are Connected: The Sacred Circle of Life," series are invited to contact HERS at (913)749-8498. ■

## Mohawk Nation experiencing serious toxic contamination

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Mohawk lands. Polychlorinated biphenyls (PCBs), mercury, and mirex were by-products that were considered waste by the industries and put into the rivers or held in unlined dump sites. By the early 1980's Mohawk researchers began to find conclusive evidence that toxic contamination had reached serious levels and, if left unchecked, would have jeopardized the health and well-being of the Mohawk population. Turtles were found to contain 835 parts per million (ppm) of PCBs. Three ppm of PCBs in poultry fat is deemed unfit. Since then the Mohawk Nation's environmental office has been conducting research that has led to the recommendation that the consumption of fish be limited or not eaten at all. Women and children, particularly pregnant women, were told to refrain from eating fish from the rivers and streams on Mohawk lands.

When speaking to Mohawk tribal members, one could, at times, sense in their tone the enormity and

complexity of the task they face in trying to find ways to clean their environment. Yet in the same conversation, you could also feel the pride and determination in their voices as they spoke about the changes that must occur so the Mohawk future can be assured for generations to come.

Our travels through a portion of Indian Country during Summer 1996 were truly enlightening and gave me a sense of pride and optimism for the future of the tribal groups we contacted. Much is being done. Tribes have begun to take control with such resolute commitment to insure the welfare and well-being of those tribal members who will follow. I am grateful to the tribes for allowing my colleagues and me the opportunity to visit and to learn. I in turn will teach about your views and concerns and the devotion you have for your people and your communities. ■

# Available videotapes

These tapes are available through interlibrary loan from Kansas State University's Farrell Library.

## Geoscience Education in Native American Communities

**Live Teleconference: An Environmental Legacy For Our Grandchildren**

**Comparison of Native American and European Worldviews: A Roundtable Discussion, Part II**

**The Badlands Bombing Range Project**

**Basin Creek Mine Closure Reclamation Techniques**

**Comparison of Native American and European Worldviews: A Roundtable Discussion**

**Topics in Pollution Prevention—Vehicle Maintenance**

**PCBs in Our Environment—The Legacy Continues**

**Comparison of Native American and European Worldviews: A European Viewpoint**

**Environmental Impacts of Gold Mining Operations Near the Fort Belknap Reservation**

**Comparison of Native American and European Worldviews: A Native American Viewpoint**

**The NAOMI Program and HERS: New Opportunities in Environmental Research**

Hózhó Kéyah (Environmental Harmony in Business)

Hózhó Hooghan (Environmental Harmony at Home)

Team America: A Strategic Plan for the 1990's

Bold print indicates that a seminar was sponsored by the NAOMI Seminar Program.



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