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*Sand Creek descendant Crescent  
Moon Woman or China Woman,  
lived to see most of the Cheyenne  
reservation given to whites.*

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Smithsonian Institution "Wolf Chief"

# SEARCH FOR THE SAND CREEK DESCENDANTS

By DIANNE BYSTROM

**I**n 1864, 200 Cheyenne men, women and children — a friendly group of Indians who had been promised protection by the U.S. government — were brutally massacred at Sand Creek, near Fort Lyon, Colorado, by the U.S. Army and the Colorado Militia. To compensate the Cheyennes for loss of life, limb and property, the U.S. government promised the Sand Creek survivors \$38,620 in cash and land in western Kansas.

Today, 119 years after the massacre, that debt still has not been paid. However, with the help of computer technology and Indian oral accounts, University of Oklahoma anthro-

pologists are identifying the Sand Creek descendants to pave the way for eventual reimbursement — today estimated at \$10 million, including interest.

Identifying the Sand Creek descendants was an outgrowth of a University research project, funded by \$304,196 in grants from the National Science Foundation and National Institutes of Health, and directed by John H. Moore, OU associate professor of anthropology.

"The primary purpose of our research was to study Cheyenne demography and fertility and mortality rates," he explains. "But to complete these studies, we needed to establish

the genealogies of the Cheyenne Indians — which led to the identification of the Sand Creek descendants.”

Moore, who speaks the Cheyenne language, has been interested in the history, religion and social and political structure of the Indian tribe for 15 years. As an assistant professor of anthropology at Albion (Michigan) College, he visited Oklahoma in 1970 to conduct field work for a study of Cheyenne religious symbolism.

That trip — and conversations with Cheyenne leaders in Oklahoma — sparked Moore’s interest in helping to identify the descendants of the Sand Creek massacre.

“In a meeting with the Council of 44 Chiefs — the same political structure that the Cheyennes have had for 400 years — it was suggested by Jim Medicine Elk, then Keeper of the Sacred Arrows, that I do something *practical* to benefit the tribe,” Moore remembers.

Determined to offer the Cheyennes practical results through his scientific interests, Moore later contacted Chief Laird Cometsvah of Clinton, who was directing the tribe’s Sand Creek project. For three years, the Cheyennes had been painstakingly recording by hand the genealogies of tribal members on 3-by-5 cards in an attempt to determine the Sand Creek descendants — a project deemed “impossible” by the federal government.

When Moore joined the OU anthropology department in 1977, he began writing grant proposals to fi-

nance the collection of scientific data needed for the Sand Creek project. After several years of rejections from funding agencies, Cheyenne leaders suggested giving Moore’s proposals some spiritual assistance.

“In 1979, at their suggestion, two proposals were carried into the Sacred Arrow Tipi,” Moore says. “Both were granted. When I told the Cheyenne leaders, they were not even surprised — they had expected the grants to be approved after they had been placed in the sacred tipi.”

To fund the research, Moore received a \$145,818 grant from the National Science Foundation for 1980-81 and \$158,378 from the National Institutes of Health for 1981-82. Although the research was completed last August, Moore and the 10 graduate students who assisted in the project have just begun to publish the results.

Appropriately for a project with such goals, the research combined computer technology with Cheyenne oral tradition to collect, organize and establish data about the Sand Creek descendants.

“One of the first things we did was to establish a name dictionary on the computer to sort through the Cheyenne names and their rather inconsistent English translations,” Moore says. In Cheyenne, he explains, the first and second elements in a name can be reversed without changing the meaning. For instance, “Bear Ghost” would mean the same as “Ghost Bear” in Cheyenne.

The name dictionary was designed to standardize the English translations of the Cheyenne names so that the “same persons could be found on different government records, no matter how they listed their names,” he says. “After we entered the first and second English elements of Indian names into the computer, the dictionary was used to group all similar names together. For example, all the Bears were grouped together.”

Once the name dictionary was established, government records tabulating the Cheyennes were entered into the computer. Records included an 1869 Indian capture list, reservation censuses from 1868 to 1900, a special Indian census conducted in 1880 by the Bureau of American Ethnology, annuity lists kept after 1876 which noted the rations provided to heads of families, an 1892 land allotment ledger from the Bureau of Indian Affairs, and the 1900 U.S. census.

Computers were used to organize the collected data alphabetically, geographically, by age and by sex — or by any other variables provided by the numerous documents. Next, thousands of Cheyenne genealogies collected by the tribe and OU project field workers were entered into the computer. The censuses and other records then were compared with the genealogies to confirm and expand the genealogies.

The OU researchers also used a computer program — KINPROGRAM — developed at Stanford University to “sort through the various fragmented genealogies, match the pieces and print out an entire genealogy,” Moore says. “Ours was the first practical application of the program.”

In all, 3,099 individual genealogies linking Cheyennes with their Sand Creek ancestors have been established. The actual number of Sand Creek descendants, however, probably totals some 5,000 to 6,000 people. “Seventy to 80 percent of all Cheyennes are Sand Creek descendants,” Moore explains. “Through intermarriage, many Arapaho, Kiowa and mixed bloods also can trace their ancestry to Sand Creek.”

The larger estimate of Sand Creek descendants is based on data Moore and his associates collected on Cheyenne bands — kin-based political

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Graduate students Greg Campbell, left, Dan Swan and J. J. Chou work with Professor John Moore in matching field genealogies with computer printouts.

Brian Wilson

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units called *manhao* in the native language. These units consisted of about 200 to 800 persons each. Sand Creek descendants could be established by tracing their ancestry to the discrete bands camped at Sand Creek rather than specific Indians.

"Six Cheyenne bands were camped at Sand Creek," Moore explains. "At the time there were 12 Cheyenne bands, while today, there are approximately 20."

To link the historical Sand Creek bands with current communities in Western Oklahoma, the researchers studied the structure of the encampments at Sun Dance — an annual one-to-two-week gathering of all members of the Cheyenne tribe. In addition, geographical patterns resulting from the 1892 selection of individual land allotments were studied.

"Each band had its customary place around the camp circle," Moore says. "By establishing the relationship be-

tween the Sun Dance position and the location of modern communities, we hoped to learn who were the descendants of the six Sand Creek bands."

Moore and his associates talked to 23 Cheyenne elders who were familiar with the historic changes in the camping structure of the Sun Dance from the early 1900s to today. "The Cheyennes are a highly motivated group of people," he says. "Besides the elders who gave us detailed information and diagrams of the camp circles, about 100 others provided us with additional data."

One remarkable source of information was Katie Osage, a 91-year-old woman who had memorized the order of every family camped at Sun Dance in 1914. Other elders provided details of Sun Dances held in each following decade.

"We also are very grateful to Ed Red Hat, Keeper of the Sacred Arrows until his death in February 1982, for encouraging the cooperation of the

elders and giving us his spiritual protection as we traveled (about 24,000 miles) to collect information," he says. After Red Hat's death, Joe Antelope, current Keeper of the Sacred Arrows, provided assistance.

Early reservation annuity censuses and allotment ledgers were analyzed concurrently using an original computer program to establish the descendants of the Sand Creek bands, Moore says. "The Dawes Act of 1887 required Native Americans to select their allotments of land within the tribal reservations and also provided them with annuities," he explains.

"Extended families within the same 'manhao' usually took their annuities together and also chose adjoining land allotments."

The consecutive ledger numbers

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*Identifying individuals such as Cheyenne sisters and cousins in photo below helped researchers establish modern genealogical relationships.*

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*Senior Cheyenne arrow priest Walter R. Hamilton, left, of Geary, Oklahoma, and John Moore identify Cheyenne bands from a French map drawn in 1680.*

assigned to individuals within a band, he says, should be closer than ledger numbers between members of different bands. Also, members of a band should be predictable by plotting family allotments on a map — a group of extended families would be clustered together. "This novel method succeeded in identifying both families and bands," he says.

Through information provided by the Cheyennes and the annuity and

against the U.S. government. "The Cheyennes are still two or three years away from court," Moore explains. "The government wants to reimburse the Cheyennes. They just need enough proof establishing the Sand Creek descendants."

While assisting the Cheyennes with the *practical* application of his findings Moore was using the genealogies established through censuses and other government docu-

**"As a nomadic tribe, the Cheyennes had good health and a low mortality rate . . . fertility and mortality rates changed abruptly, however, with the advent of Indian reservations."**

allotment records, the OU researchers will provide the government with information about present day Cheyennes who can be traced to Sand Creek bands. "Our first tactic is to provide information about the Cheyennes as groups," Moore says. "If more information is needed by the government to identify the Sand Creek descendants, we'll then provide them with the established genealogies."

The information will be used by the Cheyennes in their "friendly" lawsuit

ments in a multi-faceted study of Cheyenne demography, health and disease. "The genealogies established for the Sand Creek Massacre project were essential to our studies of Cheyenne fertility and mortality rates."

The OU researchers, and their funding agencies, were interested in comparing the fertility rates of monogamous Cheyennes and their polygynous brethren (those having two or more wives at the same time) and in studying the tribe's health to learn more about how evolution

works and evolutionary rates of change.

They found, for example, that women living in monogamous households were more fertile than those living with polygynous husbands. They confirmed that the male-focused genetic "founder" effect existed in the polygynous Cheyenne society, common until about 1900, in which beneficial changes are passed on by a man with a large number of offspring. And they reached some interesting conclusions about Cheyenne mortality.

"As a nomadic tribe, the Cheyennes had good health and a low mortality rate," Moore says. "When they moved around a lot, they followed very strict sanitary practices — there were customary areas designated for water for people and horses, toilet and garbage. When an area became befouled with waste, they would move on."

The nomadic Cheyennes also hunted buffaloes from horseback and ate a protein-rich diet. "Through their sanitary and dietary practices," he adds, "the early Cheyennes mostly were able to avoid serious diseases,

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such as the cholera and small pox epidemics of 1849.”

Where other Indian tribes were being wiped out by disease, the Cheyenne population remained almost the same from 1805 to 1876. The Cheyenne fertility and mortality rates changed abruptly, however, with the advent of Indian reservations. “Once they were placed on reservations in about 1869,” Moore says, “they were subjected to a high rate of mortality.”

Because they were prevented from moving around, the Cheyennes were forced to “live in their own filth” on the reservations. They also were often subjected to the “white man’s” filth. Cheyennes living on a reservation near Fort Reno, Oklahoma, were served by a stream carrying the fort’s waste products through their camp. As a result, the Indians got dysentery and influenza.

The researchers found “diseases in an area that hang on and on” — were by far the most significant factor affecting Cheyenne fertility and mortality — not nutrition or marriage practices. The diseases contributed to

a high mortality rate and depressed the fertility rate of the reservation Cheyennes, leading to miscarriages as well as a probable decrease in the frequency of sexual relations.

The study concluded that cultural factors resulting from the Cheyennes’ confinement on reservations had the biggest impact on their fertility and mortality rates. “The traditional argument is that Indians were not resistant to the white man’s diseases,” Moore says. “Our study found cultural factors more important.”

The academic payoff from the OU study will come in numerous articles and books which will be published over the next five to 10 years by Moore and his colleagues. For the Cheyennes themselves, however, the result of all this research could be the righting of a wrong which is generations old.

“Our project has provided a remarkable opportunity,” Moore concludes, “for the University, the academic community and Indian people to cooperate in achieving a practical result.”

Paul Jennins

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*Katie Osage, the oldest living Cheyenne Indian at 91, provided the most detailed information on genealogies and 1914 Sun Dance.*

*Cheyenne family groups are shown below camped near the former Darlington Agency about 1890, shortly before being forced to disperse onto individual land allotments.*

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