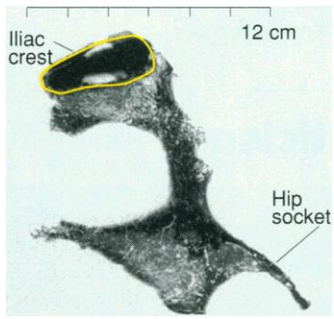
ANTHROPOLOGY

DNA Enters Dust Up Over Bones

When archaeologists learned that a skeleton found in the bank of the Columbia River in Washington state this summer was 9300 years old, they realized it provided a golden research opportunity. Only a handful of human remains of such completeness and antiquity have been unearthed in North America, and this male skeleton had two particularly intriguing aspects: Caucasoid features, and a projectile point embedded in his pelvis. "This is extremely rare," says University of Arizona archaeologist C. Vance Haynes, an expert in paleoindians. But he and others have been watching their opportunity slip away, as several American Indian tribes have claimed the skeleton as that of an ancestor and are to take possession of it for reburial on 25 October.



Bone of contention. A projectile point *(circled)* is lodged in the pelvis.

SOURCE: J. CHATTERS

Now, however, a stroke of luck will allow scientists to get some crucial data about this mysterious skeleton before it is reinterred. A sliver of finger bone used for dating has turned out to be so well preserved that scientists at the University of California (UC), Davis, think that they may be able to extract and analyze DNA. What they discover could have ramifications for the skeleton's final resting place. "We want the DNA to answer this question of what group are we dealing with? Is this somebody who became ancestral to the American Indians, or is it someone who preceded them?" says James Chatters, a self-employed archaeologist. The coroner requested the DNA work as part of the initial forensic investigation.

Chatters was first called in to analyze bones thought to be at most a couple of hundred years old. Then carbon-14 testing, done on "extremely well-preserved collagen" by archaeologist Donna Kirner of UC Riverside, dated the skeleton to about 9300 years ago. What is more, the Kennewick Man—named for the town where the skeleton was discovered—was found to be middle-aged, tall (at least 1.7 meters), with a long, narrow face, a big nose, and receding cheekbones, says Chatters. Those facial characteristics could be Caucasoid-like, say Chatters and two other anthropologists who saw the skeleton.

If the Kennewick Man were actually Caucasian, it would be a startling discovery. So far, all of the oldest North American skeletons have been of Asian descent, although features on a few skulls have been controversially interpreted as Caucasoid. Another possibility is that the first Americans—and their Asian ancestors—had features that were Caucasoid. The real test of these theories would be DNA, which can pinpoint which modern populations are most closely related to the skeleton and so help identify the ancestors of early Americans and perhaps give clues to their migration patterns.

The DNA might also show that Kennewick Man is not ancestral to American Indians, who are claiming it under the authority of the 1990 Native American Graves Protection and Repatriation Act, which says remains must be turned over to a culturally affiliated tribe. As a result, much is at stake as UC Davis graduate student Frederika Kaestle analyzes the skeleton's DNA in the lab of anthropologist David Glenn Smith. Kaestle is scanning the mitochondrial DNA to see if it has any of the markers that indicate Asian ancestry and are found in most native Americans (*Science*, 4 October, p. 31). If not, she'll look for markers found in some Europeans, Africans, Asians, and other populations. Stay tuned: Kaestle hopes for results before the month is out.

–Ann Gibbons

RUSSIA

Funding Delay Spawns Hunger Strike

MOSCOW—Two Russian scientists began a hunger strike last week to protest continuing delays in paying employee salaries at the roughly 300 institutes of the Russian Academy of Sciences (RAS). And, adding a new dimension to their cause, a government audit of RAS finances has found that up to a quarter of the money earmarked for salaries last winter was diverted to other uses by RAS officials.

The hunger strikers—academician Vladimir Strakhov, director-general of the RAS Schmidt Institute of Earth Physics in Moscow, and his colleague, Igor Naumenko-Bondarenko, chair of the institute's trade union committee—held a press conference on 1 October to draw attention to their grievances. They urged the Russian government to pay its outstanding debt to RAS institutions and to keep its promise to boost funding for research. Strakhov pulled no punches: "The champing hog of the Mafia capitalism is already crunching the bones of science," he declared. Referring to a previous round of protests in February (*Science*, 23 February, p. 1052), he added that "researchers haven't seen anything since then but mass deception and broken promises."

Viktor Kalinushkin, chair of the Coordination Committee of RAS Research Collectives, confirmed that RAS institutions have received only 68% of the funding they were due by the end of July, while institutes outside the academic framework have gotten barely half the expected amount. No funds were awarded for salaries in July, he added.

Strakhov says fellow academicians have so far declined to join his hunger strike, but scientists in several major cities, including Moscow, St. Petersburg, Novosibirsk, Ekaterinburg, and Vladivostok, were scheduled to take to the streets on 10 October in support of the cause. Although Strakhov suffers from diabetes, he and Naumenko-Bondarenko have pledged to continue their hunger strike until the government meets their demands.

Adding fuel to the protest is a recent audit by a body of the Russian Federation that has found improprieties in the way RAS funds have been spent. The audit inspector, Alexander Chernomord, reported that up to 25% of the money transferred to the academy for salaries was used to cover other expenditures, including travel within and outside Russia and the cost of running the RAS ruling body, the Presidium. Such transactions, says Chernomord, are "illegal." The report has been sent to the Finance Ministry, the Ministry of Economy, and the Procurator-General's Office.

The government has already offered some concessions to the protesters. Yuri Osipov, RAS president, and Vladimir Fortov, recently appointed vice premier for science, have won a promise from Prime Minister Viktor Chernomyrdin to pay RAS what it is owed by the end of the year. About $17 million, enough for 1 month's salaries, was released on the day the hunger strike began. "That has eased the tension," says Andrey Gonchar, RAS vice president. "But RAS could face the same problems again."

Despite this week's demonstrations, Kalinushkin says trade union leaders expect the situation to improve under Fortov's leadership. Fortov is also optimistic, declaring that "top government officials, including Chernomyrdin, have a good understanding of what science needs and its value."

–Andrey Allakhverdov and Vladimir Pokrovsky

Allakhverdov and Pokrovsky are writers in Moscow.