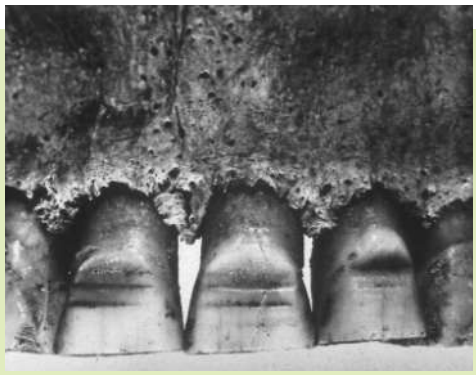
Random Samples

Edited by Constance Holden

Groovy Choppers



A Swedish anthropologist has found the first evidence of dental modification by early Europeans: Young men in Viking-age Scandinavia filed deep furrows into their upper front teeth.

Caroline Arcini of the National Heritage Board in Lund discovered the marks on the 1000-year-old skeletons of 24 young males, which were among several hundred skeletons unearthed from four different cemeteries in southern Sweden and held in storage in several museum collections.

Arcini thinks earlier researchers assumed the dental marks to be from wear or damage. But the furrows were clearly filed intentionally and with a great deal of skill, she reports in a paper in press at the *American Journal of Physical Anthropology*. She speculates that the men filled the grooves with a colored substance such as wax or fat mixed with pigment to make the marks more visible.

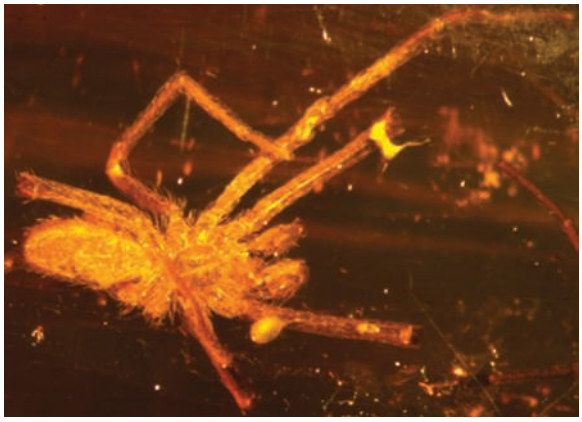
George Milner, an archaeologist at Pennsylvania State University, University Park, who has studied similar dental modifications in prehistoric North Americans, says such marks usually indicate a social group affiliation. These are surprising because "most instances of tooth modification have been found in Mesoamerica and South America." He says there have been occasional cases in Asia and Africa but none until now in Europe. Arcini says she hopes researchers will now be on the lookout for similar marks that might yield clues as to where the custom originated in Europe.

Italians Defend Darwin

Fearing that the teaching of evolution will disappear from Italy's elementary and middle schools, scientists last month organized a new group—the Society for Evolutionary Biology—to defend Darwin.

The new society was formed in reaction to the ministry of education's decision in 2004 to drop evolution from school curricula (*Science*, 30 April 2004, p. 677) in response to pressure from ruling conservative elements. Teachers and scientists mounted a protest, prompting the government to conduct an inquiry. The ministry withdrew its initial proposal earlier this year but has not made it clear how evolution will be reintroduced into classrooms.

The society's president, Giorgio Bertorelle of the University of Ferrara, says he aims to strengthen ties among evolutionary biologists worldwide and raise funds from Italian associations overseas. The furor in Italy could benefit science by raising public awareness about evolutionary biology, says Giorgio Bernardi, editor-in-chief of *Gene* and chair of the International Society of Molecular Evolution. Bernardi, one of hundreds of scientists who have joined the new society, predicts that in the end, "sanity will prevail."



Spider Essence in Amber

Even spiders have blood, although it is actually a bluish fluid called hemolymph. Now the oldest known droplets of spider blood have been discovered trapped in amber.

Paleontologist David Penney of the University of Manchester, U.K., spotted the droplets in a specimen, dated at 15 million to 20 million years old, belonging to the Museo del Ambar Dominicano in the Dominican Republic. He claims that the drops' preservation yields new information about how small organisms get trapped in amber.

It has been thought that insects become slowly engulfed after getting their feet stuck in resin. However, in the September issue of *Palaeontology*, Penney argues that because the droplets of spider blood were caught intact, the creature must have been submerged and had its legs broken very suddenly from a flow of liquid resin. Slow engulfment would allow the blood to dry out.

George Poinar of Oregon State University in Corvallis, an expert on amber-embedded fossils, agrees that "entrapment could have occurred quite rapidly." The museum specimen, he adds, shows that the "rapid and yet relatively gentle flow of amber resin can preserve rarely fossilized structures such as blood."

Penney suggests that such droplets may hold promise as an uncontaminated source of ancient DNA. Getting genetic material from bodily tissues is usually problematic because they may be contaminated by the DNA of internal microbes.

Blood and Steel

Heart of Steel (Hemoglobin), unveiled last week in Lake Oswego, Oregon, is one of a series of "protein sculptures" created by Julian Voss-Andreae, a quantum physics–trained German who is now an Oregon artist. The sculpture is made from tightly coiled steel tubing that trembles under the touch and which surrounds a red glass sphere.

CREDITS (TOP TO BOTTOM): ANNICA JEPPSON AND STAFFAN HYLL; DAVID PENNEY

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