

Drifting Hominids

Many researchers assume that differences between the skulls of modern humans and Neandertals—with their jutting faces and thick brow ridges—are due to natural selection. Neandertal crania (see top skull) might be adapted to using teeth as tools, while the moderns (below) were moving toward language proficiency.

But a new study supports the notion that these dramatic contrasts result from “genetic drift”: the random changes that occur in any population. Anthropologist Timothy Weaver of the University of California, Davis, and colleagues made 37 measurements on



2524 modern human skulls and 20 Neandertal skulls. They plugged the numbers into a model based on a well-established example of human genetic drift.

They came up with a “divergence time estimator” that put the Neandertal-*Homo sapiens* evolutionary split at between 311,000 and 435,000 years ago. That range agrees with recent estimates from Neandertal DNA (*Science*, 17 November 2006, p. 1113). Eric Delson, a paleo-anthropologist at Lehman College in New York City, says the study, in this week’s issue of the *Proceedings of the National Academy of Sciences*, adds to “the growing body of evidence in support of a genetic-drift explanation for a major portion of human cranial evolution.” But he cautions that these findings apply only to features of the skull, not to the brain inside.



India’s Floating Lab

India has established a state-of-the-art marine research presence with its new \$58 million ship, the *Sagar Nidhi* (“ocean wealth”). The 103-meter-long Italian-built ship, India’s largest research vessel to date, will survey marine resources along the country’s 7500-km coastline, conduct underwater archaeology, and deploy deep-sea sensors for early warning against tsunamis. Launched on 3 March in Chennai, the ship will house 30 scientists.

Verbs Across the Bering Strait

When Edward Vajda first encountered descriptions of an isolated Siberian language, Ket, in the early 1990s, its verbal structure reminded him of Navajo.

Now Vajda, a linguist at Western Washington University in Bellingham, has demonstrated the first solid connection between Native American languages and those spoken by north Asians who came across the Bering Strait some 12,000 years ago.

At a meeting of the Alaska Anthropological Association in Anchorage last month, Vajda showed how Yeniseic, a language family containing Ket, is linguistically related to Na-Dene, a North American language group including Navajo. Vajda compared verbs in Ket and Na-Dene, all tonal languages, and showed how tones in Ket words arose from consonant shifts in similar Na-Dene words. He also identified shared vocabulary. The modern Ket word for “mosquito,” for example, is pronounced “soo-ee”; the ancestral Athabaskan is “tsoo-ee.”

Although a linguistic tie between the two language families has long been supposed, scholars have been skeptical of previous attempts to link them that far back. Vajda’s work, says linguist Johanna Nichols of the University of California, Berkeley, is a “successful demonstration of a long-distance, temporally deep connection.”

Ket man relaxes by Siberia’s Yelogui River.



Genes and Humor

If you use humor to lighten your life, you can thank your genes. But sarcasm is more likely a reaction to your environment, according to a twin study on “humor styles.”

Psychologist Philip Vernon and colleagues at the University of Western Ontario in London, Canada, gave a questionnaire to 456 pairs of adult, same-sex twins in Britain; 300 pairs were identical and 156 pairs were fraternal. The questions measure two positive humor styles: “affiliative” and “self-enhancing” (with items such as, “I’m often amused by the absurdities of life”). There are also two negative styles: “aggressive” and “self-defeating” (as in, “I will often tease people” about their mistakes).

The researchers reported in last month’s issue of *Twin Research and Human Genetics* that, for positive humor, correlations were far higher in the identical than the fraternal twins, in line with their genetic relatedness. Negative humor, in contrast, showed little genetic influence.

But Brits and Americans diverge a bit in their propensity for nasty jokes. The British study revealed some genetic influence for negative humor, whereas a study of U.S. twins, also headed by Vernon (in press in *Personality and Individual Differences*), found almost none.

Vernon theorizes that the difference reflects a “larger tolerance” for “diverse” types of humor in the U.K. Americans “might be less likely to enjoy” negative humor, he says. The contrasting results, says psychologist Nancy Segal of California State University, Fullerton, make for “a fascinating intermixing of biology and culture.”