Feeling cagey

Researchers have discovered that gold can take the shape of nanoscale, hollow cages similar to carbon buckyballs. Lal-Sheng Wang of Washington State University in Richland, Xiao Cheng Zeng of the University of Nebraska in Lincoln, and their coworkers bombarded a piece of gold with a laser in a vacuum and studied the clusters that arose. Typically, "metals like to form close-packed structures," says Wang. But when 16 to 18 atoms joined, they formed empty cages. The researchers don't yet know whether the gold-lattice cages would survive outside the vacuum, but placing a nongold atom within the 0.6-nanometer-diameter frames might stabilize them. In an upcoming Proceedings of the National Academy of Sciences, the group provides evidence for the structures. A model of the 16-atom version is shown here. —R. COWEN

Hybrid-Driven Evolution

Genomes show complexity of human-chimp split

Not only did the evolutionary parting of human from chimpanzee ancestors occur more recently than had been indicated by previous data, but it also played out over an extended period during which forerunners of people and chimps interbred. That controversial possibility arises from a new genetic comparison of people, chimps, gorillas, orangutans, and macaque monkeys. Various parts of the human genome diverged from those of chimps at times that span at least 4 million years, concludes a team led by geneticist David Reich of Harvard in Boston. A final genetic reproductively separate humans and chimps, trans 6.3 million and 5.4 million scientists report in an upc. Most scientists had held and ancient chimps bran common ancestor roughly ago, with no interbreeding. Clues to ancient interbre X chromosome, Reich any. People and chimps e similarity on that sex-link than on any of the other 22 Genetic detachment of hu or hominids, from chimps occurred on the X chronic 1.2 million years later than chromosomes, the scienti A partial genetic cleavage chimp ancestors, followed1 that reshaped the sex chronic conclusive split, best explain in the researchers' view. It'd presumed hominid fossils 6 million years ago (SN 7/4) have preceded the final 8 come from hybrid creation. "Something very unusual the time of [human-chimpanzee]," Reich says.

His team aligned 20,000 sequences from the genomes of five humans and chimps. The researchers then identified two alternative versions when one species across the species. I assessed the extent to which chimps, as well as other species, shared gene variants. Previous work underscored similarities in people and chimpanzees, says, and placed parting of these species abo too early. Although hybridization evolution in plants and animals had looked for.

Given the new genetic data, it's plausible that after hominids interbred with fertile females and infertile males, their chimpanzee ancestors would then mate with hominid males. Hominids would have sons only on passed on: a chord from species, this would have worked! Harvard Medical School study," which important.

Reich's method for estimating human-chimp genetic divergence