

Anthropology

Bruce Bower reports from New Orleans at the annual meeting of the American Anthropological Association

Glimpses of AIDS and male prostitution

A 13-month study of male prostitutes, commonly known as hustlers, indicates these men court infection with the AIDS virus mainly through intravenous drug use and unpaid homosexual activity, not transactions with their clients.

Social anthropologist D. Scott Wilson of the University of New Mexico in Albuquerque conducted in-depth interviews on sexual activity and AIDS knowledge with 14 hustlers and 11 of their clients living in Denver in 1989 and 1990. Wilson has also interviewed 59 Denver hustlers in a larger study of male prostitution.

Hustlers typically described myths and fantasies about AIDS, even when they possessed a fair amount of factual knowledge about the disease, Wilson says. Most erroneously believed they could avoid contact with AIDS-virus carriers because infected individuals display obvious physical symptoms, he reports.

In contrast, hustlers' clients — family men whose only homosexual contacts involved male prostitutes — had a more realistic view of AIDS risk and safe-sex options, Wilson says. Most of their sexual activity with hustlers involved low-risk oral sex rather than high-risk anal sex, he notes.

Hustlers maintain a strictly homosexual orientation and undoubtedly have a high rate of infection with the AIDS virus, Wilson asserts. Their unpaid homosexual encounters often involve anal sex without use of a condom, he finds. "And almost all the hustlers I've talked with are dependent on intravenous drugs and shoot up frequently," he adds.

The culture of street hustlers remains largely unexplored, Wilson points out. Only careful, repeated interviews can cut through the lies and wishful fantasies hustlers construct as they speak to a researcher, he maintains. Moreover, he says, these prostitutes have few contacts with other hustlers and offer mostly unreliable information about their colleagues.

In Rio de Janeiro, Brazil, social workers have trained some male prostitutes to pass on information about AIDS prevention to other prostitutes, says Richard G. Parker of the State University of Rio de Janeiro. Effective AIDS education requires targeting specific groups of prostitutes, Parker argues.

For example, two types of male prostitutes work Rio's streets. "Hyper-masculine" hustlers consist of poor, bisexual youth who occasionally engage in prostitution with homosexual clients. "Hyper-feminine transvestites" engage in full-time prostitution, usually with men who have wives or girlfriends.

Hustlers, transvestites and their clients clearly have the potential to infect unsuspecting partners with the AIDS virus, Parker contends.

Monkeying with *Proconsul's* hip

In 1985, fossil hunters working near Kenya's Lake Victoria uncovered a nearly complete left hip bone belonging to *Proconsul*, a "formative ape" that lived between about 22 million and 14 million years ago (SN: 1/12/85, p.26). Analysis of the rare remnant of *Proconsul's* pelvic anatomy now indicates it resembles the hip bones of living monkeys more than those of living apes, reports Carol V. Ward of Johns Hopkins University School of Medicine in Baltimore.

Ward compared the *Proconsul* hip bone to 275 hip bones from modern monkeys and apes. Monkeys possess a flexible torso, long lower spine and short, narrow pelvis adapted for moving through the trees. Apes have a stiffened torso, relatively short spine and long, broader pelvis to support the back while climbing and ease weight pressure on the lower body.

The *Proconsul* specimen generally looks monkey-like, sharing many features with the hip bones of baboons, Ward says. Small dimensions near the pubic opening suggest the *Proconsul* bone comes from a male, she adds.

Earth Sciences

Richard Monastersky reports from San Francisco at a meeting of the American Geophysical Union.

Larger grave for the Himalaya

Even as plate tectonic forces continue to push up Mount Everest and its sister peaks, wind and water slowly erode the Himalaya mountains into tiny grains that eventually wash into the Bay of Bengal. A team of geophysicists now estimates that the bay contains far more Himalayan sediment than previously supposed. If so, the "superthick" blanket of sediments may hold hidden pockets of petroleum, they say.

The new proposal emerges from studies of how seismic waves pass through the Earth beneath the Bay of Bengal. James N. Brune of the University of Nevada-Reno, along with Joseph R. Curry, LeRoy M. Dorman and Russell W. Raitt of the Scripps Institution of Oceanography in La Jolla, Calif., analyzed waves from earthquakes and reinterpreted the results of an experiment from the mid-1970s that used explosions to send seismic waves down into the seafloor. According to their calculations, the northern end of the bay has a 20-kilometer-thick layer of sediments, at least 5 km deeper than scientists have traditionally estimated.

The basin in the Bay of Bengal has yielded relatively little petroleum in comparison with other sedimentary basins, such as those in the Gulf of Mexico. But Brune and his co-workers say their new theory raises the possibility that the Bay of Bengal sediments are thick enough to have created conditions that favor the production of petroleum.

What's holding up the High Sierras?

Since the 1920s, geologists have believed that the high peaks of the Sierra Nevada rest atop a thick root of buoyant crustal rock that supports the fabled California range. But seismologists who have analyzed earthquake waves passing beneath this region now say they can't find the crustal root.

Craig H. Jones and Hiroo Kanamori of the California Institute of Technology in Pasadena and S.W. Roecker of Rensselaer Polytechnic Institute in Troy, N.Y., examined seismic waves recorded by receivers in and around the Sierra region during a recent experiment. The speed of the waves passing beneath the mountains indicates that the crust has a thickness of only 25 to 35 km under the high peaks of the southern Sierras, which stretch from Sequoia National Park to Mono Lake. Previously, workers had put the depth of the crust in this region at 50 km.

Gravity studies of the region indicate that some low density rock must underlie the Sierras. One possible candidate, Jones suggests, might be a zone of hot, buoyant rock in the mantle, helping to support the peaks. But seismic experiments so far have failed to find this hot mantle region.

The New Madrid quack

The mood among top earthquake experts ranged from angry to anxious to amused as national attention recently focused on New Madrid, Mo. — a town at the center of one of the more controversial earthquake predictions in years. The New Madrid fault zone unleashed some of North America's greatest seismic shocks in 1811 and 1812, and geoscientists say chances are high an earthquake will shake this region in the next few decades. But geologists and seismologists have labored hard in the last two months to quell the hysteria that erupted after meteorologist Iben Browning of Tijeras, N.M., put even odds that unusually high tidal forces would trigger a strong quake near New Madrid within a few days of Dec. 3. In October, a panel of experts concluded this prediction had no scientific validity. Perhaps the greatest proof that geophysicists did not take Browning seriously was the fact that they remained at the American Geophysical Union meeting on the target date rather than flocking to New Madrid to witness the predicted quake, says geologist Eugene S. Schweig of Memphis (Tenn.) State University.