

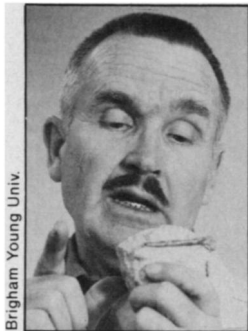
## Bone bonanza: Early bird and mastodon

Some of history's most significant old bones have cropped up in the western United States during the past several weeks. In western Colorado's Dry Mesa quarry, Brigham Young University archaeologists have come upon the 140 million-year-old remains of what they are calling "the oldest bird ever found." And in Sequim, Wash., Washington State University researchers have uncovered the first direct evidence that mastodons were hunted by humans 11,000 to 14,000 years ago.

The discovered rear-leg bird femur (and subsequently, two connected shoulder bones) is some 60 million years older than the previously found "oldest bird" fossils, says BYU's James A. Jensen. The newly discovered bone is of the same period (Upper Jurassic) as the Archaeopteryx—a small, winged dinosaur thought by some to be an ancestor to the true bird. However, "it is obvious that we must now look for the ancestors of flying birds in a period of time much older than that in which the Archaeopteryx lived," says Yale University's John H. Ostrom, who positively identified the specimen from Jensen's excavation site.

One of the key clues that this was a true bird and not another winged dinosaur was found in the portion of the femur that attaches to the hip socket, Jensen says. "A bird has a relatively weak hip socket connection," he notes, while the Archaeopteryx has a stronger, less flexible ball and socket joint and a "ground dweller's femur." Lacking the deep keel on its breast bone to which flying muscles must attach, the Archaeopteryx was incapable of powered flight, but probably could glide, Jensen suggests. Its feathers served mainly to keep it warm. Jensen's find was made at the same site where, in 1972, he discovered the fossils of the largest known dinosaur—more than 50 feet tall, with 8-foot shoulder blades. The quarry has been mapped and dated by geologists. Although the bird fossils were found near the surface, Jensen believes they were once buried 16,000 feet underground before erosion gradually uncovered them.

At Washington State University's anthropology department, Richard Daugherty received a phone call in early August from Claire Manis, the wife of Sequim landowner Emanuel Manis. Her husband, she told Daugherty, was excavating to build a duck and goose pond on his 5-acre plot. After removing three feet of top soil, Manis came upon a tusk and other assorted mastodon bones. Daugherty rushed to the scene and found an unexpected prize—a broken rib fragment with an apparent projectile extending three-quarters of an inch out from it. X-rays showed the projectile also extended into the bone for three-quarters of an inch and was indeed a spearhead.



Brigham Young Univ.

*Jensen examines femur. The unnamed bird's genus and species are uncertain.*



Ruth and Louis Kirk

*Mastodon rib with a protruding spear tip.*

While there have been similar finds with mammoths, this was the first such direct evidence of human hunting of mastodons, Daugherty says adding, "This is great evidence. It could not have been done by accident."

Meanwhile, in eastern Siberia, Soviet scientists dug out a chunk of ice containing a perfectly preserved baby mammoth, about six months old with reddish fur, big feet and small ears. □

## Mental illness Rx: Research, insurance

When President Carter established the President's Commission on Mental Health in February, he urged its members not to "reinvent the wheel" by repeating the work or findings of other governmental and citizens groups. In its preliminary report to the president, made public last week, the commission appeared to comply with Carter's request. But just how smoothly some of these recommendations will roll their way into Carter's upcoming budget proposals is still questionable.

After four months of research, which included testimony from 200 persons and written presentations from another 200, Commission Chairman Thomas E. Bryant unveiled a list of 14 recommendations, some aimed at inclusion in the budget. The commission's final report is to be completed by April 1, 1978.

While many of the proposals were predictable and expected, several were somewhat surprising. First, the commission recommended specific and sizeable increases in mental health research budgets but basically adopted a "hold the line" posture in treatment areas. This was the case despite the results of a new National Institute of Mental Health study indicating that the percentage of Americans in need of mental health care at any one time is increasing above the previously accepted estimate of 10 percent of the U.S. population. The report estimates that 20 million to 32 million people currently need some type of treatment.

The commission's research recommendations call for increases of 20 percent in the \$117 million NIMH budget, 30 percent in the \$16 million National Institute on Alcohol Abuse and Alcoholism allocation and 35 percent in the \$34 million National Institute on Drug Abuse budget. "The [research] data out there now are poor," said Bryant, who has been director of the Drug Abuse Council since 1971. Substantial increases are needed "not just in basic research, but in the areas of epidemiology and service delivery as well," he said. Bryant added that in a conversation with Carter, the president "favored" the idea of more research and "said he would try to accommodate us in that."

At the same time, the commission called for essentially no increases in budgets for mental health manpower training and the community mental health centers program. Moreover, it is apparent that the commissioners do not consider the community center concept—the major thrust of the U.S. mental health movement since the early 1960s—nearly the cure-all it was first envisioned to be. "Individual centers have made substantial contributions to the communities they serve," Bryant said, "but important questions have been raised about the concept and implementation of the program. Our initial findings indicate that the centers, though a good method of providing community based services, are not the only method of providing these services." Bryant did not rule out the possibility of cutting off federal funding of the centers after fiscal year 1979.

Bryant said the recommendations do not mean a de-emphasis of treatment, but rather point to a shift in strategy toward improving mental health benefits in Medicare and Medicaid and ultimately including such provisions in Carter's national health insurance package. "Those [restructured Medicare and Medicaid regulations] will be here in April and probably be the building blocks of national health insurance," he said. However, American Psychiatric Association President Jack Weinberg suggested that the commission may have leaned too heavily on research objectives. "We expect . . . that additional funding will be needed for treatment programs as well," he said.

Among the other commission recom-