

The Past Recaptured, Again

By Carl Mehling

I've come to expect stunned looks from visitors when I lead behind-the-scenes tours of fossil collections at the American Museum of Natural History. Stored in the museum's division of paleontology are piles of specimens—wrapped in their original protective shielding—that have never seen the light of day. Fossil hunters are constrained by time, money, and luck. In the field those constraints often prompt paleontologists to “jacket” their most promising stuff, for closer inspection when time and tools are available indoors. So they swaddle the fossil-bearing blocks of rock in plaster and burlap for safe transport home, a procedure that hasn't changed much since the late 1800s.

I see a lot of these plaster-shrouded packages—ranging from grapefruit size to a two-ton tombstone—in the vertebrate paleontology collections at the museum. Much of the material that has come into the museum in the past century has been cleaned of stone, studied, and even displayed. Still, our storage areas remain stuffed with jacketed fossils. Funding for expeditions to exotic places is easier to secure than for the preparation of specimens. How many pulses quicken at the prospect of paying for someone to sit alone for weeks or months at a microscope, picking grains of sediment away from bone? Thus, our surplus.

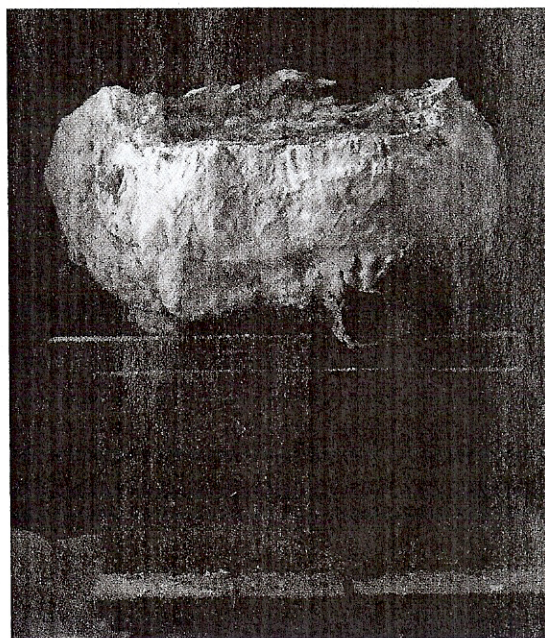
Yet discoveries made from digging in old plaster or crumbling crates are no less likely or less exciting than the ones made poking around in some remote badlands. This past year a graduate student named Sterling Nesbitt, from Columbia University in New York City, validated that principle, when he came to our collection with an interest in our jackets from Ghost Ranch. Ghost Ranch was, and still is, an unusually rich bone bed that was discovered in New Mexico in

1947. The American Museum excavated part of this stony cemetery of prehistoric beasts, and many of the fossils are still sequestered in our collections.

Nesbitt became passionate about these Late Triassic time travelers, and he was keen to start liberating them. In my two-year tenure managing the museum's library of reptilian relics he has been the only one to open a Ghost Ranch jacket, and I was thrilled to see someone finally chipping away at the raspberry-yogurt-colored stone. Within weeks, Nesbitt was rewriting the Ghost Ranch story. He discovered complete skeletons of two new species of reptiles. Before Nesbitt's discoveries the Ghost Ranch bone bed was thought to have recorded a mass die-off of only one kind of dinosaur, the primitive meat-eater *Coelophysis*. Now, fifty-eight years after the initial New Mexico dig, we realize that Ghost Ranch sediments hold the carcasses of a diverse number of *Coelophysis*'s contemporaries as well.

What other ghosts are haunting the burial grounds of museums, subject to academic priority and funding? We hope to find out—in effect, discovering them twice. Every year new jackets arrive in my department, most of them nowadays from Mongolia's Gobi Desert, and join the queue. Sometimes I get a little sad when a plaster wall, just millimeters thick, barricades us from ancient faces, but it usually just humbles me and teaches me patience. After all, when some of our specimens haven't seen the sun for 220 million years, what's a few more decades?

CARL MEHLING manages part of the vertebrate paleontology collections at the American Museum of Natural History.



Ghost Ranch jacket, stored at the American Museum of Natural History, was recently opened, and a new species of ancient reptile was discovered inside.