

# BONE MAN

Some notes on the life and hard work of Bill Otto,  
Sculptor and Preparator in the Geology Division

**W**ILLIAM V. OTTO is the man who did the actual reconstruction job on the skeleton of the prehistoric horse described on the preceding pages. In fact, he's responsible for the whole awesome assemblage of skeletons which are on display in the halls of the geology buildings—from the 29-foot prehistoric sea serpent down to the 2-foot horse.

The first thing everyone asks Bill Otto is how long it takes him to put a skeleton together. And one reason he hesitates in his answer is that he's never had time to see a job straight through since he's been here. He invariably keeps three or four things rolling at once. Right now, for example, he is (1) building a mount on which to assemble a skeleton of a giant ground sloth, (2) making casts of the brains of a mastodon and a prehistoric bear, (3) working out some prehistoric camel material from a huge mound of earth encased in a plaster cast and sent in by field workers in the Tehachapi Mountains.

Most of the material he works with is shipped in to him, though he occasionally goes out into the field himself. In the case of the Mexican horse, the material had been worked out from the surrounding earth, separated from bones belonging to other animals and thoroughly dried over fires before it was shipped to Bill Otto at the Institute. When he got it he cleaned it off and treated the brittle bones with plastics to harden them.

Then began the arduous and finicky job of selecting from this mass of material those bones which were in the best condition, and which would make the best-articulated skeleton. These were treated further, while the discarded ones were carefully filed away in one of the Geology Division's 500-odd cabinet drawers, which contain everything from shrews' claws to elephants' spinal columns.

Finally, after he had carefully planned the position the limbs and skull would take, Bill Otto settled down to the job of making a steel frame and mounting the skeleton on it.

The reconstruction of the Mexican horse was completed within a three-month period. Bill Otto, who is nothing if not methodical, can verify that by checking the ledger in which he keeps a careful record of how much time he spends on each project each day.



*William V. Otto, Sculptor and Preparator in the Division of Geological Sciences, assembles a giant ground sloth*

The second question everyone invariably asks Bill Otto is how he happened to get into this racket anyway. That's easily answered too.

He was born in Frankfurt, Germany, and came to this country when he was a boy. Out of school, he worked at various jobs but maintained a consuming interest in sculpture and woodcarving and finally decided to try to make a living at them. Though he was self-taught, his work was distinguished enough to be shown in the National Academy in 1941. It wasn't furnishing him with much of a living, though, and when the paleontologist Childs Frick—son of the great financier and art collector—encouraged him to come to Caltech, Bill Otto didn't hesitate long before he made up his mind.

Though he'd had no training in paleontology, and though his interest was artistic rather than scientific he found that the same techniques were used in preparatory work as in sculpture. As a sculptor he knew comparative anatomy, so, as a preparator, he merely extended his range of knowledge. As a result of this combination of skills Bill Otto is perhaps the most distinguished preparator in the country, and one to whom paleontologists constantly turn for help.

In his spare time he still works at sculpture, and constantly experiments in new mediums. Though all this means he has to maintain a pretty rigid schedule, he has always managed to find time to brew coffee for the rest of the members of the Geology Division, who file in twice a day to his lab, and hold a coffee clatch among the sloth bones there. As for Bill Otto himself, he hasn't much time for any of this; he just keeps working away on his ground sloth, bear brain, and camel remains.