BONE MAN

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

William V. Otto is the man who did the actual recon-
struction job on the skeleton of the prehistoric horse
described on the preceding pages. In fact, he's respon-
sible for the whole awesome assemblage of skeletons
which are on display in the halls of the geology build-
ings—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 him-
self. 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-articu-
lated 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 com-
pleted 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.

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 paleontolo-
gist 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 prepara-
tory work as in sculpture. As a sculptor he knew com-
parative anatomy, so, as a preparator, he merely ex-
tended his range of knowledge. As a result of this
combination of skills Bill Otto is perhaps the most dis-
tinguished 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 clutch
among the sloth bones there. As for Bill Otto himself,
he hasn't much time for any of this; he just keeps work-
ing away on his ground sloth, bear brain, and camel
remains.