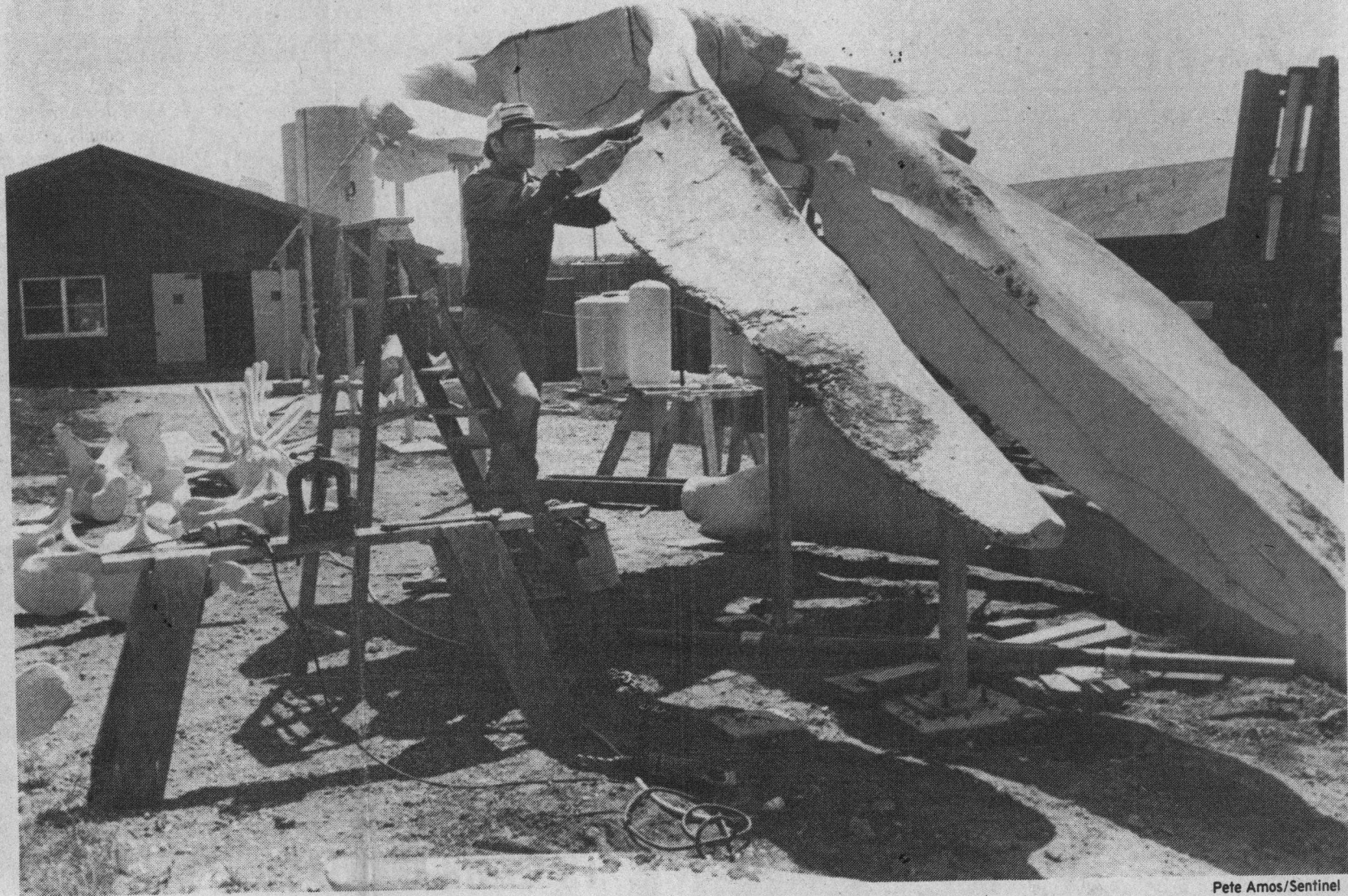


THE GREAT BLUE WHALE



Helicopter lifts skelton of blue whale.



Pete Amos/Sentinel

Frank Perry, Longs Marine Lab museum specialist, is reconstructing the skelton of the blue whale.

Marine biologists get rare opportunity

By AMY BON

Sentinel Correspondent

SANTA CRUZ — When his phone rang on September 6, 1979, the last thing UCSC marine specialist Tom Dohl expected was news of a blue whale in his neighborhood. But according to Half Moon Bay fishermen, who had just notified the Coast Guard, the great blue leviathan was about to wash ashore 2½ miles north of Pigeon Point Lighthouse.

The largest animal that has ever lived, the blue whale is four times greater than even the greatest prehistoric dinosaur, the brontosaurus. But in today's oceans the blue whale is rare and critically endangered. Their numbers have dwindled dangerously, a result of cen-

ever, they faced the daunting task of cutting away the blubber, or "flensing" this 80-ton, 87-foot beast that rolled around precariously in the surf.

"Initially there was a vast interest in the project, but enthusiasm decays as the square root of the exposure to the animal," Dohl said. "By the third day we were down to four or five hearty souls."

The process of flensing took 10 or 11 days according to Dohl. Although marine mammologists have kits of special tools designed for dissecting marine mammals, "nothing available equips you to go at a blue whale," Dohl said. "It's like trying to dissect a mastadon with a Swiss Army Knife," he said. "You don't really understand the magnitude of the problem until you stand next to a

was scheduled to come and take the chunks away, he said. But on the next to last day, a storm blew in from the Gulf of Alaska pounding the coast with the highest surf in six or seven years. The next morning all traces of the blubber were gone — stakes, tarps, and eight tons of blubber — vanished. The San Mateo County Health Department couldn't believe it, Dohl said. "I flew my plane up and down the coast, UCSC's marine research boat, the Scammon, cruised around, we even checked with Moss Landing Marine Lab to get the oceanographers' predictions of where the currents would carry it," he said. But the blubber never turned up.

Although reducing the 80-ton beast to a skeleton was a titanic task

Dohl. "It's a labor of love," he says. But most of all, the marine lab had to find a Frank Perry.

A museum specialist who graduated in geology from UCSC in 1977, Perry was working at the California Academy of Sciences in San Francisco as a curatorial assistant in its fossil collection when the whale washed up. He remembers driving up the coast to San Francisco, and seeing the whale lying on the beach. And now, half a dozen years later, he's putting it back together again.

Standing in a maze of huge weathered white bones, Perry smiles in awe of the project before him. His manicured hands bespeak the confidence of a surgeon, and his anatomical knowledge must be comparable



Pete Amos/Sentinel

It is a tedious task rebuilding the blue whale skelton.

modern engineering, according to Perry.

Long Marine Laboratory director Bill Doyle is rapt with the prospect of having a reconstructed blue whale

with an interior framework of strap iron, and support posts sunk in four feet of cement, bone after bone is hung and bolted in place. "We begin with the skull, then the vertebrae and the ribs are mounted in

centuries of intense whaling. Unfortunately their magnificent size left the blue whale highly esteemed to whalers for their vast quantities of oil. And although international agreements now ban the hunting of these marine mammals, the line may not have been drawn soon enough. So when UCSC marine biologists saw a rare opportunity to salvage the skeleton of this creature, they jumped to the occasion.

It was around noon when the dead whale, a female about 50 years old, finally tumbled ashore in the surf. The beast was huge. People were all over the beach with yardsticks, strings, and pacing it off, trying to figure out just how big it was, according to Dohl. Because an animal the size of two Greyhound buses parked bumper to bumper is nearly impossible to measure as it bounces about in the waves, the final length fixed at 86 feet and 10 inches, was an average of three different measurements, he says.

Marine scientists, excited by the prospect of learning more about the biology of this sea mammal, were ready with their kits of dissection tools.

Yet as soon as the animal beached, the debate began to rage. Officials from San Mateo County, the State Department of Fish and Game and the State Parks Department all argued over whose responsibility the whale was. "They couldn't decide. And we were faced with the fact that if we touched the animal it would become our responsibility to remove the carcass and restore the beach to its original condition," he said. "We weren't ready to take that responsibility individually or as a part of the University."

"The tremendous frustration of seeing an opportunity to look at such a unique animal — something you may never see again in your life — putrify before your eyes because of 'bureaucratic buck-passing' was terrible," Dohl said.

But the marine biologists had to wait five days for the problem of ownership to be resolved. Unfortunately the whale came ashore on a Thursday just before the long Admission Day weekend. And while the scientists waited anxiously with a rein on their patience, the bickering government departments went home for the long weekend.

"Ultimately it was resolved by us going to the county Health Department and having it declared a health hazard. Meanwhile three days had elapsed while the whale pounded on the rocks in the surf-decomposing." Dohl said much valuable information was lost because of the delay and decomposition. Biologists couldn't resolve the cause of death nor do histological (tissue) studies on most of the organs, according to Dohl. He said the whale had undergone "internal combustion" by the time they got to it.

But there was something they did want — the skeleton. To get it how-

the problem until you stand next to a blue whale."

Large knives called "flensing knives" were sent down from the National Marine Fisheries Lab in Seattle. They look alot like big hockey sticks, according to Dohl, with a four- or five-foot handle and an angled two-foot long, five-inch wide blade at the end.

The peril of four or five inexperienced individuals wielding five-foot knives, sliding around on a tremendous beast that's shifting around in the surf, was considerable, Dohl said. But only one student suffered any injury, according to Dohl. He cut his right index finger while making a sandwich on the beach.

The flensing was a long and arduous process, according to Dohl. When you begin, "you're much like a flea on a dog's back. You find the best place to attack, and go from there," he explained.

Dohl estimates that eight tons of blubber were cut off the whale. Carved off in 75-100 lb. chunks, they were then hauled up to the high tide mark using hay hooks, where they were stacked and covered with tarps. A rendering plant in Salinas

to a skeleton was a titanic task, moving it back to UCSC's Long Marine Lab in Santa Cruz wasn't any easier. At a loss for options, they turned to the California National Guard. They arranged for the Guard to come with a helicopter and sling. But instead of the helicopter they expected, a veto arrived from National Guard officials and moving dead whales around was not their problem, they said, and bowed out.

Eventually a private contractor was contacted who could airlift the skull back to a grassy patch beside the marine lab. The 18½ foot jaw bones were detached and lifted by helicopter onto the back of a big truck. And the rest of the skeleton was dismantled and trucked in pieces back to the lab in Santa Cruz.

For more than six years the skeleton project has been only a pile of bones strewn like a great dismantled jungle gym at the edge of the brussel sprout fields, beside UCSC's marine research facility. "We didn't have the experience, expertise or funds, and it's not the type of project you can throw people and money at," Dohl said. The scale of the project is a deterrant in itself, according to

parable. Six years of sitting outside and wearing the weather have cleaned up the bones considerably, according to Perry. One of his first jobs was steam cleaning and priming each bone. But even after a final coat of "bone white" latex exterior house paint, some are still not ready to mount. A number of bones are broken and must be repaired, and some are completely missing, Perry says. The missing bones can be shaped from the polyurethane foam blocks used to make surfboards. Or, Perry says, there's been talk of finding a sculptor to sculpt them.

Because there are two other blue whale skeletons in California — one at the Santa Barbara City Museum and one in a back room at the California Academy of Sciences — Perry says they hope to borrow the missing bones to use as models to sculpt, cast or carve replacements.

"We're patterning our mounting and supports after the Santa Barbara City Museum," he says. Unlike the skeleton in San Francisco which was mounted 70 years ago, the one in Santa Barbara takes advantage of

skeleton exhibited outside the research facility. Doyle says he hopes the sheer magnificence of the whale will be brought alive for marine lab visitors by the reconstructed skeleton. There are only five other complete blue whale skeletons in the United States.

A two-inch pipe running the length of the creature through the vertebrae is the main axis, and along

and the ribcage are mounted in place. The flippers come last."

Perry says he's thrilled to be entrusted with the job. "There are only a handful of people in the world who have ever put together the skeleton of a blue whale," he said. "I love seeing how the parts fit together."

"It's a big project," he shrugs, slipping his hands in his pockets. "But I try not to think about how big it is — so it doesn't scare me."