



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

N-2613

DINOSAUR NATIONAL MONUMENT
JENSEN, UTAH

November 28, 1955

Memorandum

To: Superintendent, Dinosaur National Monument
From: Museum Geologist
Subject: Protection of Fossils Exposed west of Quarry Shelter

It was necessary to remove the small Camarasaurus from the face of the cliff, because the clay in which it was imbedded was beginning to disintegrate due to its bentonite content. After removal thorough cleaning and hardening of the bone will be necessary before it can be reimbedded in an artificial matrix and replaced in its former position in the cliff. The other specimens are in a dense hard sandstone and have been given prewinter treatment. In any case they should be kept available for periodic inspection and, if necessary, further treatment. The expenses already incurred and those yet to be incurred are broken down as follows:

Protective Fence West of Quarry Shelter	
Materials	\$68.00
Labor 3½-two man days @ \$28.00	98.00
Protective Measures for small <u>Camarasaurus</u>	
Removal from Cliff 4-three man pay periods	
@ \$538.40	2153.60
Cleaning, hardening and resetting	
seven ^{three} man pay periods @ \$538.40	3768.80
Plater, steel lath, etc.	200.00
Total	<u>\$6288.40</u>

It is perfectly true that the salaries would have been spent anyway but the time spent on the small Camarasaurus would have been spent in removing overburden and exploring the hard productive layer for more bone. It is estimated that the emergency preservation of this specimen has delayed the overall development of the quarry face for approximately six months. Since we are not allowed to add a given percent to our estimates to take care of contingencies, I feel that we should be reimbursed for a portion of the salaries, say 50%.

The preservation measures being employed for the small Camarasaurus are the only ones which will give the specimen so-called permanent (i.e., three or four generations) preservation. From a little over 25 years experience with the preservation of fossils, I am not entirely convinced that Mr. Lee's suggestion would be superior to leaving the specimen exposed for the winter because of the quantity of bentonite in the clay. Certainly with his method it would not be possible to inspect the specimen periodically

and check any deterioration with preservatives.

While the work on the small Gomarasaurus is going on I will use the compressor and dirt moving equipment very little and the amortization charges should be negligible before the first of March. The other expenses between now and June 30, 1956 will not be greatly different from those given in my August memorandum but will be repeated for convenience.

Expenses for Remainder of Fiscal Year 1956

Amort., gas, oil, etc., from April 1 to June 30, 1956	
@ \$100.00 per month	\$400.00
1½ inch pipe to extend air line	140.00
Compressor Shed	100.00
Drill bits, wedges and other miscelleany	250.00
Total	<hr/> \$890.00

Theodore E. White

Theodore E. White
Museum Geologist