FOREWORD

(for The Ice-Age and Prehistory of Southwestern Parks
by Scott Elias, Smithsonian Press)

Paul S. Martin
Emeritus Professor of Geosciences
Desert Laboratory
University of Arizona
Tucson, Arizona 85721

Tel: (520) 629-9459
Fax (520) 629-9455

This book is about new discoveries of our WILD WEST. The west of which I speak is much older than Wyatt Earp or Kit Carson. It long predates Coronado and Cabeza de Vaca who came and went in the 1500s. Our author and guide, Scott Elias, takes us into the last ice age over 10,000 years ago, explaining how to "time travel" into a time warp little known until recently.

Scott introduces us to the basic field techniques, including dating methods of the kinds of deposits that yield fossils. A new one is prospecting for pack rat middens, the encyclopedia-sized time capsules found in dry caves. The rats collected the plants outside the caves or rock shelters. In addition hard parts of insects, bones of vertebrates, and even the scales of lizards are to be found in the middens. From the middens we learn of unexpected changes in the range of plants and animals in the southwest during the last ice age, and afterward.

The southwest Scott shows us goes beyond fiction, for truth as we all know is stranger. Using some of the west's finest national parks as his stage, and taking us outside of them when it suits his purpose, Scott Elias introduces us to the extinct mammoths and mammoth hunters. He reports climates once cool enough to replace ponderosa pine trees with limber pine or spruce and desert cacti with juniper and oak. We learn of caves so dry that the bones of extinct ground sloths are still covered with tissue and hair. The ancient nests of extinct condors still contain egg shells and feathers!

The First Americans took part in or witnessed all this and much more. They succeeded in farming a dry land, risking and sometimes losing to deadly droughts. Although climatic change can be blamed for prehistoric abandonment, Scott Elias does not overlook evidence of fuel wood depletion as well. When people gamble with their carrying capacity, they risk disaster. The cause is always both natural and man-made.

I won't delve much deeper into the mysteries, for that is Scott's job. But as one might guess, the new findings are beginning to change the way we may think about the west before it lost its wildness. Scott Elias writes of the loss of an American Serengeti. What does he mean by that?

American Serengeti is his name for an untamed land of large herds of large animals, the native American megafauna. Mammoths, extinct camels, extinct horses and extinct bison were the

main species. There were dozens more. Such animals long existed in the New World before people arrived over the Bering Bridge 10,000 years ago. I hesitate to put a firmer date on it because while all archaeologists would agree that people were certainly here by Clovis time, 11,000 radiocarbon years ago, they seek even earlier arrivals. And why not? Here's why.

There is a strong ecological case to make against expecting any people to have lived in America before the Clovis foragers. A New World sustaining the numerous extinct animals Scott mentions should have supported many people, living happily on the wealth of plants and animals nurtured in turn by a favorable climate and, as in the midwest, by deep rich soils. In particular, if some slow moving species such as the ground sloths, giant armadillos, and large land tortoises were ridiculously easy to hunt, as we have every reason to expect they were, they should have disappeared much earlier than they did. Instead they vanish coincidentally with the time of the Clovis hunters, along with the mammoth. What happened?

Apparently we are wedged between several questions that continue to puzzle the experts, or at least any consensus of experts. When (before Columbus) was America discovered? When did the mammoths and other large animals become extinct and why? Some would answer these questions all together. Others fear to tackle more than one at a time.

Whatever the answers to be found here in Scott's book, it is clear that our view of the west, of the natural landscape must be purged of a bias or two. Most Americans have no idea that mammoths, horses and camels and others not mentioned in *Home on the Range* were actually native here. Most Americans have not the slightest idea that the cooler climates of the last cold stage, or "late Pinedale" as Scott calls it, are typical of the last million years, not the exception!

If the west of Lewis and Clark and the fur traders, replete with buffalo, elk, and pronghorn, was WILD, the west of the mammoth hunters over 10,000 years earlier can only have been WILDER. If so, our history as taught, the last 500 years only, is seriously flawed. Such shallow history sells the west short and no patriotic American should stand for it!

We need to slough off the slush of the last few centuries and the alluvium of popular opinion, as Thoreau recommended in *Walden* 150 years ago, dig deeper and anchor in bedrock, a

point d'appui he called it. Before the mammoth hunters, before any Americans, "natives" or "late-comers", we have the game rich American Serengeti, with glacial tongues in the Rockies, deep lakes in the Great Basin, limber pine, not pinyon, in Canyonlands, and oak and juniper, not creosote bush and ocotillo, in the Big Bend. Without hesitation, we can now use the superlative. Scott Elias's book introduces us to the WILDEST WEST!

This is deep history on nature's time table. Come, see for yourself! And keep an eye peeled for the shadow of ground sloths at sunset! The land has not forgotten them.