

THE ORIGIN OF THE CYPRESS HILLS (Cont'd)

that the boulders were originally deposited much closer to the Rocky Mountains, and subsequently uplifted, reworked and transported to their present, temporary resting place.

When the climate became favourable for the coniferous forest to establish itself, it also spread out over this gravel fan, bringing with it many other species of plants peculiar to the Rocky Mountain region and are now relicts in the isolated hills of the western plains. Due to soil and climatic conditions, the forest could not persist on the intervening plain which was being carried away by the forces of erosion.

It is agreed by geologists that during the glacial epoch the western or more elevated parts of the Cypress Hills were not glaciated. Here on this island, then isolated and surrounded by the ice sheet and 200 miles east of the Rockies, persisted a relict flora of more than 50 foothill and Rocky Mountain species.

Some geologists believe that the Cypress Hills are the result of local uplift at the time of the uplifting of the Rocky Mountains.

Other authorities maintain that the Cypress Hills plateau was a trough in the Tertiary period and the gravel carried by enormous streams heading in mountain gorges 200 miles to the west. Later the softer material eroded rapidly away and even the greater part of the river bed itself, thus leaving the Cypress Hills with its hard capping of river sorted conglomerates as the highest elevated plateau on the plains of Western Canada.

It seems more logical to assume, from the above evidence, that the Cypress Hills formation is an alluvial deposition rather than a local uplift. There appear to be three reasons for this: (1) the smoothly worn, river-sorted, ovoid, slightly flattened cobbles and pebbles; (2) these cobbles and pebbles decrease in size from west to east; (3) the surface of the plateau has a west to east decline of 15 feet per mile, indicating a west to east current.

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ARCHAEOLOGY

Allan J. Hudson, Mortlach.

The offer of the Editor for a corner in the BLUE JAY for archaeologists is welcome. It presents archaeologists with an opportunity to let a wider circle of out-door people know what they are doing; what they hope to do and how others can help them in their efforts. For the aim of archaeologists is not just to make collections of the works of ancient man, but through their collecting to understand the man himself, his origins, his manners of life, his speed through time and space.

To do this, they have to find occupation sites that can be excavated stratigraphically, for it is only in this way that the sequences in cultures can be observed. It is here that observant out-door people can be of help in noticing clues to such sites. In our own discovery in the Besaul valley, near Mortlach, it was such a man who first observed the clues (bones weathering out of the soil) that led to a very good find.

From our deepest excavations right down to the old river sand, we have been able to establish a succession of point styles all within the notched point complex. Naturally, without the help of specialist opinion we have no means of accurate dating. The earliest form is a short, squat point, quite

ARCHAEOLOGY (Cont'd)

thick through. Above them is a zone of very large points which would probably be throwing-stick points. Up to this stage, the workmanship is decidedly rough. From this stage on the points improve, becoming at the same time smaller.

Unfortunately because the C.P.R. right-of-way was moved into the valley in 1904, some of the sequence in the middle of the upper half has been destroyed. One can see this clearly by comparing the material from the valley with a collection of surface finds gathered over a period of years. However, a few tools within the last period of the sequence have been found. It is hoped that next summer new sites can be found to complete the sequence.

But we were specially fortunate in one respect. At other places in the valley were separate camp sites in which the deposits corresponded to different occupation levels. For instance, in one excavation at a depth of 8 inches to 10 inches, socketed bone handles are numerous. In the top few inches the most modern points of the midden type are found, and here again three-quarters of a mile away is a camp site of this period, so that we know positively the last points made and used by the Indians.

The ground water level in the Besaul valley is close to the surface, sometimes below, sometimes above, so that the flora is of a moist climate type. But one can walk a hundred yards up the north bank and be amongst sand dunes with desert-like plant forms, of which the cactus is typical. We often speculate how such a mixture of forms could exist side by side. Undoubtedly when the glaciers finally retreated from the area, moist climate conditions prevailed and there would be a spread of moist climate flora from which direction only a comparative study of plant forms would show. But as the region became drier, and there is a definite evidence in the valley of desiccation even in comparatively recent times, one supposes that the desert forms came from the south-west.

Apropos of this problem the Cypress Hills in the S.W. part of the province have a different geology. Parts were never glaciated and presuming that some plant and animal forms were able to survive in the unglaciated area, just what influence would they have when the ice retreated and how far would their influence extend.

If at present the subscription list of the BLUE JAY isn't well represented in that area, it is to be hoped it will improve later as there is a region of some significance in many ways, perhaps also archaeology.

TWO-LEGGED PREDATORS!

At a recent sportsmen's meeting, Paul Miland heard a discussion of such predatory animals and birds as foxes, crows and owls.

Smiling, he observed: "They're bad all right, but it's the two-legged predator we must guard against. We all know how he operates. He's the one who is chopping down trees and doing nothing to replace them. He's the one who destroys all the natural bird and wildlife refuges--and then gripes because the shooting isn't good these days. And, of course, he's the person who fills the rivers and creeks with sewage instead of constructing sanitary disposal plants--and then yelps because the fishing has become so bad. Yes, we need to educate these two-legged predators." -- Conservation Volunteer.

May 30: Rusty is lost; presumed dead. Too bad!

