

It seems obvious that investigations now in progress in a number of laboratories of the age of stratigraphically well-defined rocks will soon permit a much better definition of the time scale.

If we accept the consensus of current thought, it appears probable that the last metamorphism to which Cape Columbia group rocks were subjected occurred in lowermost Palaeozoic time or uppermost Precambrian time; the rocks themselves may be much older as the method dates only the most recent metamorphism.

The existence of metamorphosed strata in northern Ellesmere Island suggests that orogenic forces may have been involved and the resulting land-mass may have been the source of the clastic sediments that Thorsteinsson and Tozer<sup>11</sup> note in the Parry Islands and Ellesmere Island. By the close of the Palaeozoic era, the area occupied by the Cape Columbia group rocks had been lowered and limestone of Permian age was being deposited with angular unconformity on the gneissic and other metamorphic rocks of the Cape Columbia group.

R. G. BLACKADAR

<sup>1</sup>Feilden, H. W. and C. E. De Rance, 1878. Geology of the coasts of the arctic lands visited by the late British expedition under Captain Sir George Nares. *Quart. J. Geol. Soc.* 34:556.

<sup>2</sup>Peary, R. E. 1907. *Nearest the Pole*. London: Hutchison and Co., pp. 213, 231.

<sup>3</sup>Schuchert, C. 1923. Sites and natures of North American geosynclines. *Bull. Geol. Soc. Am.* 34:151-230.

<sup>4</sup>Blackadar, R. G. 1953. Geological reconnaissance, north coast of Ellesmere Island, N.W.T. *Geol. Surv. Can. Pap.* 53-10.

<sup>5</sup>Christie, R. L. 1957. Geological reconnaissance of the north coast of Ellesmere Island, N.W.T. *Geol. Surv. Can. Pap.* 56-9.

<sup>6</sup>Kulp, J. L. 1955. Isotopic dating and the geological time scale. *Geol. Soc. Am. Sq. Pap.* 62:609-30.

<sup>7</sup>Mayne, K. I., R. St. J. Lambert, and D. York. 1959. The geological time scale. *Nature* 183:212-14.

<sup>8</sup>Holmes A. 1947. The construction of a

geological time scale. *Trans. Geol. Soc. Glasgow.* 21:117-52.

<sup>9</sup>Kulp, J. L., J. C. Cobb, L. E. Long, and D. S. Miller. 1959. The geological time scale. *Nature* 184:BA62-3.

<sup>10</sup>Davidson, C. F. 1959. The geological time scale. *Nature* 184:1310.

<sup>11</sup>Thorsteinsson, R. and E. T. Tozer. 1960. Structural history of the Canadian Arctic Archipelago since Precambrian time. *Geol. Surv. Can. Pap.* 60-7.

#### ANDREW GRAHAM, THOMAS HUTCHINS, AND THE FIRST RECORD OF PEARY'S CARIBOU

The eighteenth century naturalist Thomas Pennant published the following note in 1787:

"Mr. *Hutchins* was presented, by the *Weahipouk Indians*, with a Deer four feet eight inches long and three feet two high. It was entirely white, except for the back which was mottled with brown. The fur was short and fine like that of the Ermine. The Indians, in their manner of expression, said it came from a place where there was little or no day." (Ref. 2, p. 51).

This description sounds extremely like Peary's caribou, but there are obvious difficulties in accepting it as the first record of that remote species of deer. Who, it must be asked, were the "Weahipouk" Indians? How were any Indians able to secure the skin of an animal that lived north of the range of most Eskimos? And how did they come to make a present of it to Dr. Thomas Hutchins who spent most of his time in America at Fort Albany on James Bay and was never at any time north of Fort York? (Ref. 4, p. 263, note 1).

Through the kindness of Miss Alice Johnson, archivist of the Hudson's Bay Company, it has become possible to answer these questions and also to assert that Pennant's note is indeed the earliest description of Peary's caribou, although an inaccurate one.

The archives of the Hudson's Bay Company possess twelve manuscript volumes entitled *Observations on Hudson's Bay*. The three earliest are by

James Isham and date from the 1740's<sup>3</sup>. One of the others is ascribed on the cover to Thomas Hutchins and has often been quoted (e.g., by Seton) as his work. It is in fact not Hutchin's work. It contains observations from Prince of Wales's Fort at Churchill, Man., which Hutchins never visited, and its text is consistently similar to that of eight other manuscript volumes of the *Observations on Hudson's Bay* that were written or rewritten by one Andrew Graham, who was chief of the Hudson's Bay Company posts at Severn, York (1772-3), and Churchill (1773-5). To Graham must thus be ascribed this, as well as the other manuscripts. In three of Graham's manuscripts Pennant's deer skin is described in almost identical words as follows:

"Wappew-Tick the White Deer. This species is five feet eight inches long [not four feet eight inches, as Pennant wrote]; Three feet two inches broad ["broad", not "high", as Pennant wrote]; legs one foot nine inches long [omitted by Pennant]; the hoof is black, two inches long and *one and a quarter* broad [omitted by Pennant]. It is quite white and does not change colour in the summer time like the Hares, but continues the same in all seasons; except when old the back is mottled with brown hair intermixed with the white. The furr quite short and much resembling the Ermine; the Esquimeaux who I am now conversing with says they very seldom see any of them. The Wechepowuck [note Pennant's misspelling] Indian who brought me this skin says they harbour where very little or no day light appears. I have strictly examined the southern Natives [the Crees, who traded at Churchill], the oldest of whom never did see or hear tell of such coloured deer. I presented the skin to the Directors of the Hudson's Bay Company."

This is the text in the volume catalogued as Hudson's Bay Archives E. 2/12, p. 37; the words in italics are

added from the text of the other two manuscripts, Hudson's Bay Archives E.2/10 and E.2/13. The last of these three manuscripts, E.2/13, is the one wrongly attributed to Hutchins and contains the following further information:

"Last Summer I had in to Trade nigh three hundred Wechepouck Indians headed by the leader who conducted Mr. Hearne to the Coppermine river, from him I had several pieces of Copper, also two Deer skins which are entirely white and the hair firm in the Pelt and nearly as fine as Ermine furr."

The Indian who provided the deer skins is identified as Hearne's guide, Matonabbee. This identification establishes his fellow "Wechepouck Indians" as Chipewyans, for "he was made head of all the Northern Indian nation" on his return to Churchill in 1772 (Ref. 1, p. 227). The post where the skins were received must have been Churchill, since Eskimos are described as being there and the Chipewyans traded regularly there, whereas neither of these people normally came as far south as Fort York. The date is obviously *after* Hearne's journey and must have been 1774 or 1775 as these were the only two summers in which Graham had charge of Churchill. Since Matonabbee brought Graham "several pieces of copper", it would appear that he had again been to the Coppermine River, for which he had had ample time between his departure from Churchill in 1772 and the summer of 1774. This last point makes Matonabbee's possession of two skins of Peary's caribou perfectly comprehensible. One has only to suppose that he secured them from Eskimos at the Coppermine River, whom he had helped rob in war in July 1771, and with whom he had traded peaceably on a previous visit (Ref. 1, p. 224). The Eskimos themselves could well have obtained the skins from Victoria Island, where the caribou today intergrade with the Barren Ground species, but still show strong *pearyi* characteristics. Matonabbee's description of the habitat of these deer as a land "where very

little or no day light appears" fits Victoria Island for nearly half the year and could be information derived from Eskimos who visited the Coppermine River in summer. This is quite possible because Matonabbee himself was very peaceably inclined toward the Eskimos (Ref. 1, p. 224). The assertion that the deer concerned "does not change colour in the summer time like the Hares" still more decidedly suggests sound information obtained from Eskimos. Finally, Graham's original and ungarbled description of the skin fits *pearyi* even better than Pennant's printed version.

One can therefore conclude that Peary's caribou ought to have been known to science from 1787 on, if only Hutchins and Pennant had been at pains to copy Graham's account fully and correctly.

Here again Dr. Hutchins shows his singular talent for stealing the credit due to others. This he had done earlier for all the natural history specimens sent home to the Royal Society by Humphrey Marten from Fort Albany (Ref. 1, p. 287). As noted above, Graham deserves the whole credit for the natural history observations ascribed posthumously to Hutchins by Richardson, Seton, and others, and Hutchins is here found to have imposed on Pennant too. He had ample opportunities to do this because he was the Hudson's Bay Company's corresponding secretary in London after his return from Fort Albany in 1782. His only real services to knowledge of the Arctic would appear to be the positive one of making the "Observations on the Congelation of Mercury" published in the *Proceedings of the Royal Society*, and the negative one of taking from the Hudson's Bay Company archives Hearne's Chipewyan vocabulary "containing sixteen folio pages", so that it was lost with his papers on his death in 1790 (Ref. 1, p. lii) and thus preventing it from being used by fur traders, explorers, missionaries, anthropologists and others, even if Hutchin's intention had been to have it copied.

It is high time that Andrew Graham

received his due and that scientists were directed to his manuscripts, which may well prove worthy of publication. They contain much of interest to anthropologists, ornithologists, mammalogists, as well as fur-trade historians.

My thanks are due to Dr. A. W. F. Banfield for information on the caribou of Victoria Island.

RICHARD GLOVER

<sup>1</sup>Hearne, S. 1958. Journey to the northern ocean. Ed. by Richard Glover. Toronto: Macmillan Co. of Canada.

<sup>2</sup>Pennant, Thos. 1787. Supplement to the arctic zoology. London: Henry Hughs.

<sup>3</sup>Rich, E. E. 1949. Isham's observations and notes. Toronto: The Champlain Society

<sup>4</sup>Tyrrell, J. B. 1934. Journals of Hearne and Turnor. Toronto: The Champlain Society.



"Girl with Skin Line" by Kunu  
(Stonecut 9 by 12 inches).