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PALAEONTOLOGY

NOTE ON SOME NEWLY FOUND PERISSODACTYL TEETH  
FROM THE OMO GROUP DEPOSITS, ETHIOPIA

BY

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The rhinocerotids collected in the Omo Group deposits of southern Ethiopia by the American contingent from 1967 to and including 1972 have been reported upon (HOOIJER, 1973). In the collection made during the 1973 and final season of the U.S.A. party in the Omo there are rhinocerotid deciduous molars not before recorded from these deposits. There is also an entire chalicothere premolar, the best specimen of its kind so far found in the Omo, a very rare element to the Plio/Pleistocene vertebrate fauna of Africa. These specimens, given to me for study and report by Dr. F. Clark Howell of Berkeley, California, will be dealt with in the present paper. My research on fossil African Perissodactyla has been supported by various grants-in-aid of the Wenner-Gren Foundation for Anthropological Research, Inc., in New York.

***Ceratotherium praecox* Hooijer & Patterson**

So far the record of *Ceratotherium praecox* HOOIJER & PATTERSON (1972, p. 19; HOOIJER, 1972; 1973, p. 168) from the Mursi Formation rests upon maxillary fragments holding P<sup>4</sup> and M<sup>2-3</sup> sin. collected by Richard Leakey in 1967. In the American Omo collection of 1973 there is a maxillary fragment with DM<sup>1</sup> and DM<sup>2</sup> dext., YS.70, Mursi Formation (pl. 1 figs. 1-2). The DM<sup>1</sup>, 30 mm high as worn by a greatest anteroposterior ectoloph diameter of 26 mm and a basal anteroposterior diameter of only 24 mm, is decidedly higher than that in *D. bicornis*. In DM<sup>2</sup>, the parastyle is prominent in front, as in *Ceratotherium simum*, but the anterior cingulum is strong, nearly horizontal, and extends along the internal face of the protocone, as in *D. bicornis*. The protoloph is not distinctly recurved backward internally, and there is no cement, as in *D. bicornis*, but the postsinus is almost as deep as the medisinus, as in *C. simum* (in *D. bicornis* the postsinus is decidedly shallower than the medisinus).

The combination of characters found in the Mursi deciduous molars is diagnostic of *C. praecox* as seen in the specimens from Langebaanweg, Cape Province (HOOIJER, 1972, p. 166-167). The measurements of the Mursi and Langebaanweg DM<sup>1</sup> and DM<sup>2</sup> are given in table 1.

TABLE 1  
Measurements of DM<sup>1</sup> and DM<sup>2</sup> of *Ceratotherium praecox* (mm).

	Mursi Fm.	Langebaanweg
DM <sup>1</sup> , greatest length ectoloph	26	—
posterior width	23	23
DM <sup>2</sup> , greatest length ectoloph	40	42
anterior width	36	37
posterior width	40	42

The duplicated crista, and their joining the crochet so as to form a medifossette in the Mursi DM<sup>2</sup> are *Ceratotherium* characters, though there may be a medifossette in *D. bicornis* also. *C. praecox* is held by us to be the immediate ancestor of *C. simum*, the modern White Rhinoceros, and it ranged in Africa from 7 to 4 million years ago (HOOIJER, 1973, p. 169).

#### *Diceros bicornis* (L.) subsp.

To this species, the modern Black Rhinoceros of Africa, belongs a DM<sup>2</sup> dext., L.398-2576, from Shungura Member F, around the 2 million year level (pl. 2 figs. 1-3). The well-developed, continuous internal cingulum is quite characteristic as is the fact that the postsinus is decidedly shallower than the medisinus. We did not have this milk element of *D. bicornis* from the Omo Group deposits yet, although we did have DM<sup>3</sup> and DM<sup>4</sup> (HOOIJER, 1973, p. 158, 165). The Mursi Formation DM<sup>4</sup> is somewhat lower-crowned than recent specimens, but later specimens are indistinguishable from those in recent skulls. The skull marked L.68-1, mentioned in my earlier paper as coming from Shungura Member C, Dr. J. de Heinzelin informs me in reality originates from Member D, somewhat over 2 million years in age. It is completely modern in characters. The measurements of the DM<sup>2</sup> from Member F are given in table 2; they conform to those in recent DM<sup>2</sup>.

TABLE 2  
Measurements of DM<sup>2</sup> of *Diceros bicornis* (mm)

	Shungura F	Recent
Greatest length ectoloph	39	37-40
Anterior width	33	31-35
Posterior width	36	35-40

#### *Ancylotherium hennigi* (Dietrich)

The P<sup>4</sup> sin. of this species, L.11-28, Shungura Member D5, briefly mentioned (HOOIJER, 1973, p. 153, footnote), is more worn than the P<sup>4</sup> dext. from locality J.M.511 of the Chemeron Formation (HOOIJER,

1973, p. 152, pl. 2 figs. 7-9) but resembles it closely (pl. 2 figs. 4-6). The ectoloph is convex from above downward, and also anteroposteriorly between the raised parastyle and metastyle. There is a well-developed buccal cingulum. In the central fossa we observe a tiny projection, bifid at its apex. There is a continuous cingulum anteriorly, lingually, and posteriorly, well set off from the crown except on the lingual face of the main internal cusp, the protocone. The measurements are presented in table 3.

TABLE 3  
Measurements of P<sup>4</sup> of *Ancylotherium hennigi* (mm)

	Shungura D5	Chemeron Fm.
Buccal length	28	28
Width	29	31

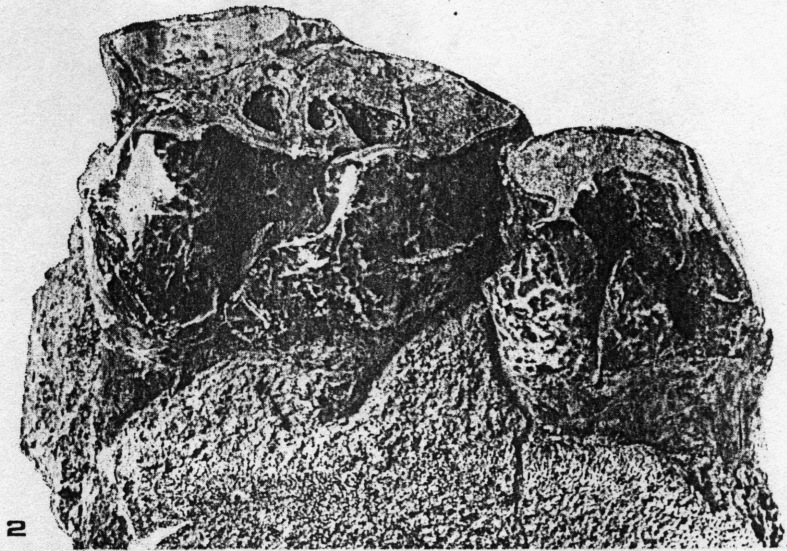
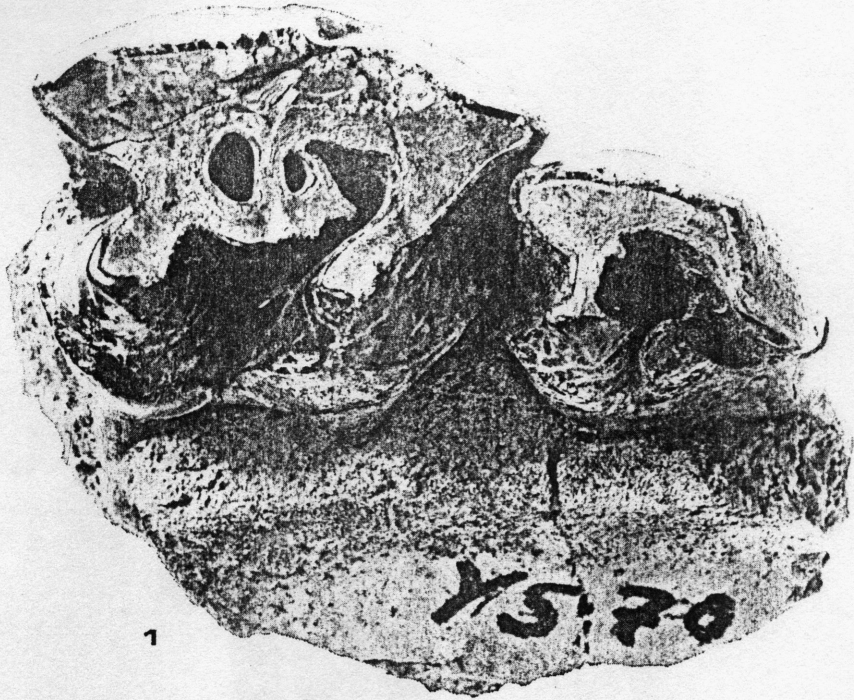
So far, *Ancylotherium hennigi* (Dietrich) is known only from Laetolil (the type: DIETRICH, 1942, p. 105), Olduvai Bed I (BUTLER, 1965, p. 226), the Chemeron Formation (HOOIJER, 1972, p. 188), and the Shungura Formation Members D5 and G (HOOIJER, 1973, p. 153). Quite recently, PICKFORD (1975) reported upon a phalanx from the Lukeino Formation the size of which suggests the present species, and related the old story of the Nandi Bear myth. Lukeino has been radiometrically dated as between 6.7 and 5.4 million years (BISHOP, 1972, p. 230). The upper limit of this range coincides with the lower limit of the Chemeron (5.4-2.0 million years: Bishop, l.c.). The Lukeino phalanx, if the provisional identification is substantiated, would be the oldest record of the species for Africa.

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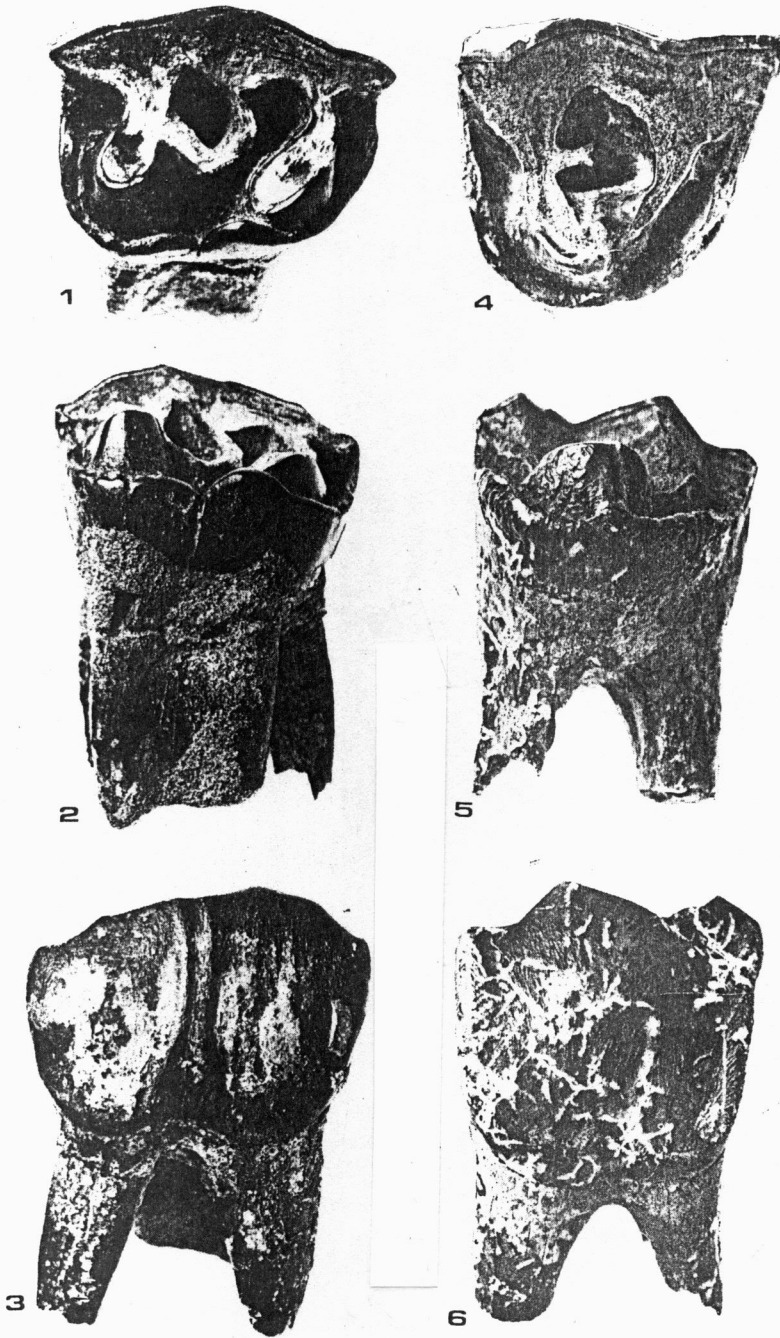
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PLATE I



*Ceratotherium praecox* Hooijer & Patterson, DM<sup>1</sup> and DM<sup>2</sup> dext. in situ, Mursi Formation, southern Ethiopia, YS. 70; fig. 1, crown view,  $\times 1.8$ ; fig. 2, internal view,  $\times 1.6$ . C. Hoorn phot.

PLATE 2



Figs. 1-3. *Diceros bicornis* (L.) subsp., DM<sup>2</sup> dext., Shungura Formation Member F, L. 398-2576; fig. 1, crown view; fig. 2, internal view; fig. 3, external view; all figs.  $\times 1.2$ . C. Hoern phot.

Figs. 4-6. *Ancylotherium hennigi* (Dietrich), P<sup>4</sup> sin., Shungura Formation Member D5, L. 11-28; fig. 1, crown view,  $\times 1.5$ ; fig. 2, internal view,  $\times 1.3$ ; fig. 3, external view,  $\times 1.5$ . C. Hoern phot