贈呈

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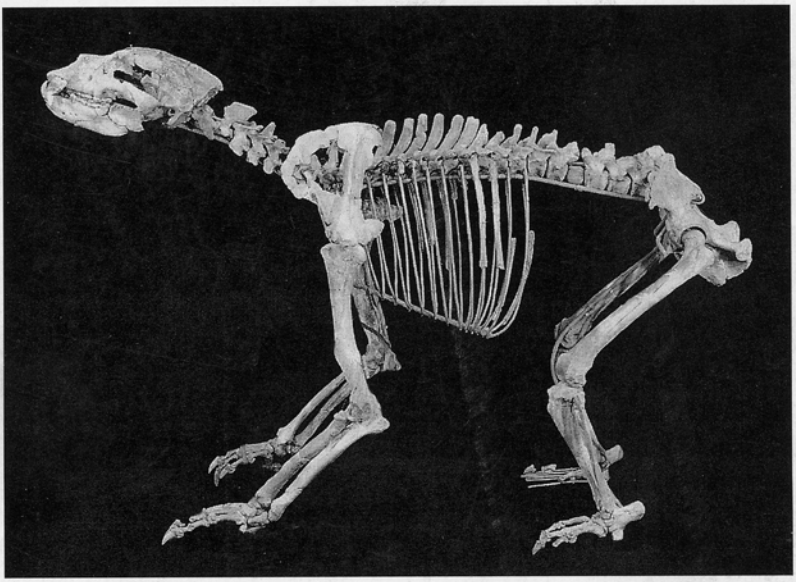

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Bone Remains from Sae-kul and Cheonyo-kul of the Turubong Cave Complex in Korea

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I. INTRODUCTION

The Turubong Cave Complex (EL 127 32′21″, NL 36 30′31″) is located at Sinam village, which is the 8 km North-east of Cheongju city in Chungbuk province.

This region lies geographically in the central part of Korean peninsular and it has a typical mid-latitude climate (Fig. 1).

The Turubong Cave Complex is composed with small caves. The Museum of Chungbuk National University and the Museum of Yonsei University excavated this site for the first time in August 1976. And the Museum of Chungbuk National University excavated it again from 1977 to 1983.

The area has been mined for limestone since 1960s, and many of the interwoven cave channels have been destroyed by these activities. Much of the prehistoric inhabitation remains are disappeared during the exploitation processes.

The area is of limestone attributed to the Cenozoic period and the karst formation made many caves and the prehistoric men lived there at different time sequence. Among them, six are excavated; No.2 cave, No.9 cave, Sae-kul (new cave), Cheonyo-kul (virgin cave) and Heungsu-kul (Heungsu cave).

The cave no. 2 yielded 46 species including *Bos primigenius*, *Dicerorhinus kirchbergensis*, *Crocuta*

crocuta, *Hyaena* sp., and *Macaca robustus* (ph. 1 · 2). Many of them reveal the biota of "La Faune chaude" which live in sub-tropical or tropical climate. Based on these remains, we may conclude that the No. 2 Cave culture was developed during Middle Pleistocene of some warm period.

In Heungsu-kul, 2 skeletons were unearthed. One of them is (Hungsu Child no. 1) is probably belong to the late Upper Pleistocene period judging from the figure, structure and morphological characteristics (ph. 3 · 4).

II. THE CULTURAL ASPECT OF SAE-KUL AND CHEONYO-KUL

1. Sae-Kul Cave

Sae-kul is situated at the top of the Turubong mount and revealed abundant large mammalian bones. We could identify *Elephas antiquitas* (ph. 5 6), *Dicerorhinus kirchbergensis*, *Macaca robustus*, *Hyaena ultima*, *Ursus arctos L.* and *Pxeudaxis grayi* etc. *Elephas antiquitas* was yielded for the first time by a normal excavation in Korea and is regarded as an important material for reconstruction of paleoclimate and Paleolithic culture.

In this cave, 13 skulls of *Pxeudaxis grayi* and 2 pendants made with grounded antler of this animal are excavated in 1 m scope at the corner. These would be important for understanding of Paleolithic men' s ritual and thinking for the deer cult.

Various types of bone tools are uncovered in this cave and they were made by bone flaking techniques and sometimes by fire treatment.

2. Cheonyo-kul Cave

Cheonyo-kul has three branch caves linked with each another and a little different remains are excavated in each branch cave (ph. 7).

In the first branch, many scattered bones of Cervidae are excavated in the red and salty sand-clay

layer. In the second branch, the mandibula, femur, tibia, radius, coxae and neck bones of *Dicerorhinus kirchbergensis* are excavated almost completely in the grey sand-clay layer. It shows that the paleoclimate was relatively warm. Another important materials are unearthed in this cave: bones of *Ursus spelaeus* (ph. 8). Their bones are intentionally laid to the east and antler of Pseudaxis grayi is located in the center of bear bones. This "disposition" of bones indicates that Paleolithic men would have rituals and performed. With these materials concerned ritual and belief at that time, the results of further studies on anthropology, mythology will help us to reconstruct the thinking system of Paleolithic people.

III. THE HUMAN BEHAVIOR FOUND IN SAE-KUL AND CHEONYO-KUL

In the Turubong cave complex, faunal remains are the most abundant. In each cave of this site, we unearthed many animal bones consist of many species. A recent analysis on faunal remains proved that some pieces have butchering marks resulted from human activities.

Animal materials of Sae-kul and Cheonyo-kul are examined in this analysis. These two caves were found in the top of the Turubong mound and yielded abundant large mammalian bones.

Almost animal bones are broken into small fragments and we could identify the cut marks on them produced by human activities.

The stereo microscope (x 30 ~ 50) was utilized for the analysis of the cut marks and we could say that the different stages of butchering were utilized to the animal bones.

The butchering techniques are carried out differently according to the animal body part.

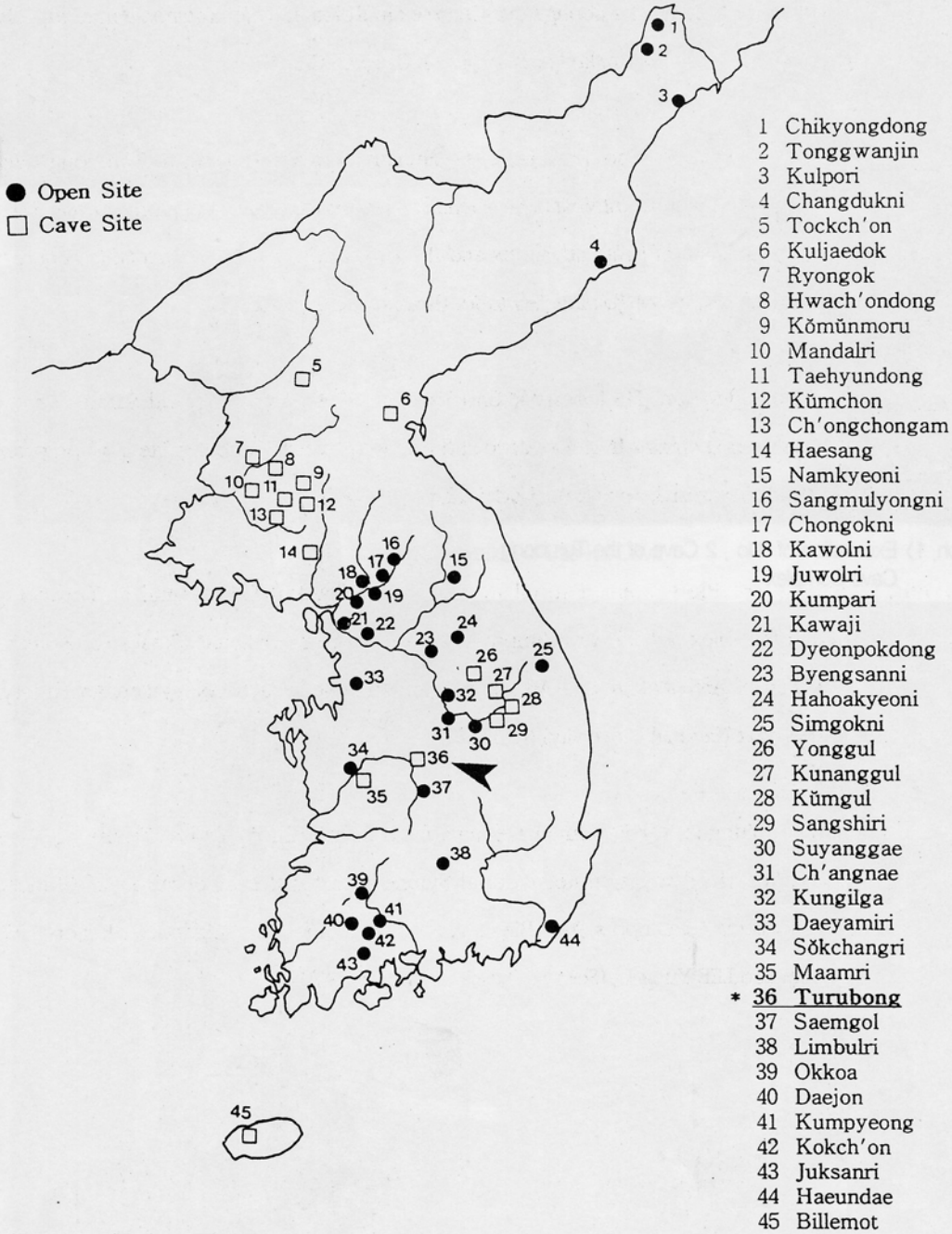
① skinning - scapule, vertebrate, ribs

② dismembering - Tibia, Femur, Humerus ; mostly the end of the shaft (ph. 9)

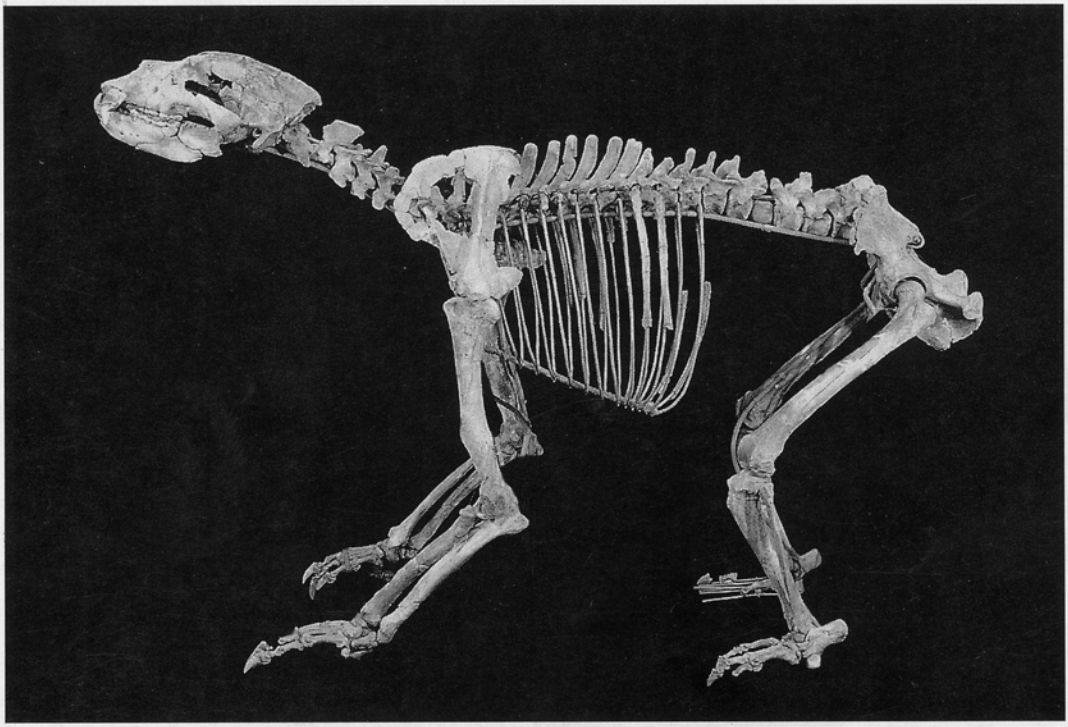
③ filleting - Femur, Humerus, coxae (ph. 10)

Among 78 pieces having cut-marks, the majority (70) are bones of Cervidae (*Pseudaxis grayi*). But it seems that human butchering activities did not carry out systematically because the localization of cut-marks is scattered and these marks are small in number.

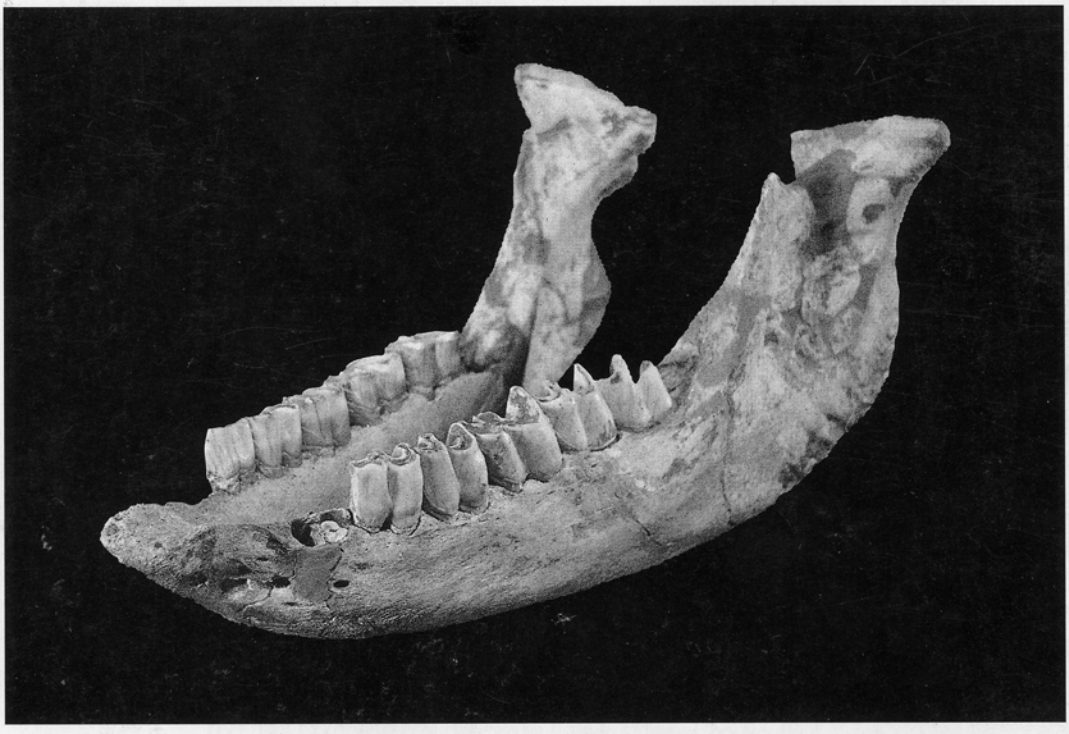
Many trimming traces are observed on the tusk of the ancient elephant found in Sae-kul (ph. 11). It



〈Fig. 1〉 Paleolithic sites in Korea and the Turubong Cave Complex



〈ph. 13〉 Reconstruction *Ur. spelaeus*



〈ph. 14〉 *Decerorhinus kirchbergensis* Mandible