On the Processing and Mounting of a Skeleton of a White Rhinoceros, Ceratotherium sinum
Chun-Hsiang Chang¹ and Chern-Mei Jang*¹

¹Department of Geology, National Museum of Natural Science, Taichung, Taiwan 404, R.O.C.
²Department of Collection Management, National Museum of Natural Science, Taichung, Taiwan 404, R.O.C.

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Abstract. The skeletal remains of a white rhinoceros, Ceratotherium sinum, were recovered from the Leofoo Village Zoo in March, 2003. This white rhinoceros had been raised in the zoo for 30 years until its death, yet without any definite cause of death. Processing and mounting of the specimen is reported herein with a detailed characteristic description and morphological measurements. The profile length of the mounted skeleton is 348 cm and the shoulder height is 147.5 cm. According to the appearance of very heavy wear in the maxillary dentition with channel fully closed through to dentine and small patches of enamel left, this white rhinoceros was approximately an aged individual at the age of about 33-38 years old. The skeleton was supported by two main vertical metal pillars with four secondary pillars for limbs and connecting its skull, vertebrae and pelvis. Not only for educational exhibition, the restored whole skeleton of the white rhinoceros will also contribute the study of comparative anatomy with other extinct species from fragmentary fossils.

Key words: Ceratotherium sinum, rhinoceros, skeleton.

INTRODUCTION

White rhinoceros, Ceratotherium sinum may be called a great giant living genus of land mammals except for Elephas, Loxodonta, and perhaps Hippopotamus. The weight is about 1,400-1,700 kg in females and 2,000-3,600 kg in males (Nowak, 1991). C. simum inhabits widely regions of Africa, and can be recognized externally by its usually lighter coloration, squared upper lip with no trace of a proboscis, more sloping and less sharply defined forehead, shoulder hump, and less conspicuous skin folds on the body (Kingdon, 1979). C. simum is classified as endangered by the IUCN (The World Conservation Union) and CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora). The populations have fluctuated in response to the alternating protection or exploitation of human, but the overall tendency of number has been destroying downward (Western and Vigne, 1985).

Since the wild rhinoceros is getting rare, the domestic ones in zoos will be more important, where bring the various aspects of scientific researches on their behavior, development and social interaction. Even the carcasses of animals which had been raised in zoos will be helpful in the study of anatomy, pathology and physiology. After a fine dissection and preparation of the skull and skeleton, the specimen can be mounted not only for public educational exhibition, but also for the study of comparative anatomy between modern species and extinct species which were based on fragmentary fossils.

We report here the processing and mounting of a skeleton of a white rhinoceros, Ceratotherium sinum obtained from the Leofoo Village Zoo (六福村野生動物園), with an attempt to record and discuss the relevant experiences and problems. The specimen of the white rhinoceros was examined in detailed character analyses and morphological measurements. The present report is made on the metric data of the modern rhinoceros sample for use in future studies. The specimen was numbered NMNS004017-F003822.
and preserved in the National Museum of Natural Science, Taichung, Taiwan.

**MATERIALS AND METHODS**

The material in this report is the skeleton remains of a male raised white rhinoceros (*Ceratotherium simum*). It was named "Old Man" lived in the Leofoo Village Zoo until it died at the age of about more than 30 years without any definite cause of death. Prior to burial of the carcass, the horn was cut at the base of the skull (since there was no plan for recovery of the skeleton at that moment) and gone. The carcass was buried in red clay, which is characterized by high sticky clayed soil, low rate of infiltration and low concentrations of microfauna, around the zoo.

The first step of this project was to exhume the body of the white rhinoceros, and then carefully dismember and separate the skull and bones from skin and flesh. Chemicals like soluble-oil and petrol were tried to dissolve fat from the bone marrow. After repeated removal of fat and cleaning with water, the bones were dried in a room with a room temperature and good ventilation. Finally all bones were dipped in 10% hydrogen peroxide to bleach and remove the scars.

The skeleton of the rhinoceros was planned to use metal supports and internal joints through which the weight from top portions of the body could be transferred to the two main vertical supporting pillars. The pillar was a 64 mm (2.5 inch) diameter metal pipe supporting the skeleton respectively at the skull and pelvic regions (Fig. 1). Further, it was planned to interconnect the

![Fig. 1. Profile view of the mounted skeleton of the white rhinoceros showing the two main vertical supporting pillars.](image-url)
main pillars at skull and hip-joint level through 21 mm (0.8 inch) diameter metal pipes, which were fabricated to bear the weight of the cranium and pelvis. Another thin metal pipes with 9 mm diameter, bent and formed a stand to the mandible (Fig. 2). A 16 mm diameter iron rod, prepared to the shape of the column, was passed through the neural canal and up to the occipital condyles (Fig. 3). Subsequently, individual vertebrae were glued together and ribs were glued at their articulation at the vertebral column with epoxy resins. The four limbs were placed in their natural position with reference to a living rhinoceros. The second supporting pillars for limbs, with 21 mm (0.8 inch) diameter metal pipes, were bolted and riveted to the big bones, like humerus, ulna and radius, to pass their weight down to the platform (Fig. 4). Other small bones, like carpals, metacarpals and phalanges, were arranged and glued together with cyanoacrylate and epoxy resins.

The skeleton was mounted on a wooden platform measuring 320 cm long, 125 cm wide and 10 cm high. For the whole complete appearance of the skeleton, the casts of the two horns of white rhinoceros were made and glued to the skull. The profile length of the mounted skeleton is 348 cm. The shoulder height is 147.5 cm and the height at the tip of the sagittal crest of the skull is 183.9 cm. We were optimistically hoping to use the reconstructed skeleton of the white rhinoceros to provide an educational exhibit for the public at the museum in the near future.

The skull of the white rhinoceros is markedly dolichocranial with long backwardly extended occipital crest. It features shortened in front of eyes, with nasal, premaxillae and mandible symphysis all abruptly ending shortly in front of level of cheekteeth. Its nasal is broad and humped. The premaxillae are firmly fused with maxillae. The occiput is high, narrow, making dorsal outline of skull very concave. The posterior margin of

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Fig. 2. Lateral view of the mounted skull and mandible.

Fig. 3. The vertical supporting pillar interconnected the skull and mandible. Abbreviation: C, carpus; Cv, cervical vertebrae; H, humerus; M, metacarpals; P, phalanges; R, radius; Ri, ribs; S, scapula; St, sternum; Tv, thoracic vertebrae; U, ulna.

Fig. 4. Left forelimb showing the second supporting pillar. Abbreviation: H, humerus; R, radius; U, ulna.
palate is concave with a small median projection; basilar bones are narrow, pterygoid compressed; vomer is thick and united to pterygoids; mesopterygoid fossa is relatively narrow and deep. Measurements of skull and mandible are given in Table 1, Table 2, respectively.

The cheekteeth are hypsodont; protoloph and metaloph strong curved back, showing early fusion with wear. The ectoloph is relatively flat with little parastyle buttress. The paracone and protocone are separated by a fossa and the proteocone is inclined backward. There is no incisor or canine. The dental formula is i 0/0, c 0/0, p 3/3, m 3/3. However, some molars in the white rhinoceros are eroded and broken down, with upper left P1 and P2 are missing in maxillary, and lower left m1, right p1, p2, and m1 are missing in dentary (Fig. 5). The appearance of maxillary dentition is very heavy wear with channel fully closed through to dentine and small patches of enamel left. According to the molars preserved and their wear on occlusal surfaces, this white rhinoceros therefore could be assigned to age class XV (Hillman-Smith et al., 1986), which is equivalent to 30-38 years old individual. Measurements of molars preserved are given in Table 3.

As a member of the Order Perissodactyla, the limbs of the white rhinoceros are unguligrade and mesaxonic. A large central digit carries the main axis of weight and smaller lateral digits are present. Both manual and pedal digits number three. The bones of limbs are massive. Total forelimb length is almost 100% of total hindlimb; the humerus is 67.2% of basal skull length; the radius length is 78.5% of humerus; the tibia length is 71.8% of femur; the humerus length is 90.0% of femur; the radius length is 98.1% of tibia; the metacarpal III length is 51.5% of radius. The ischial tuberosities are expanded and rounded. Metric data of scapula and pelvis, forelimb, and hindlimb are given in Table 4, Table 5, Table 6, respectively.

The vertebral formula of the white rhinoceros is C 7, T 18, L 3, S 3, Cd 16; i.e. seven cervical vertebrae; eighteen thoracic vertebrae; three lumbar vertebrae; three sacral vertebrae; sixteen caudal vertebrae. Spine of the first thoracic is long; length of spines are decreasing anteriorly to C 5, posteriorly to T 6; spines of T 15 to 17 are slightly raised; T 17 and T 18 are anticlinal. There is a very slight rise in lumbar spines. Each thoracic vertebra articulates with a pair of ribs. Each rib head is aligned with the junction of two vertebral bodies. The ribs are strongly expanded. Measurements of vertebrae are given in Table 7 and Table 8. Measurements of both right and left ribs are given in Table 9.

DISCUSSION

The carcass of the white rhinoceros was haphazardly buried in sticky red clay with a low infiltration rate. As a result, recovery was difficult, the carcass was still not decomposed and the bones were unduly stained. The thick skin and hard muscles of the pachyderm make the manual dissection and cleaning very cumbersome. Also, the chemical cleaning and enzyme treatment (Taylor, 1967) of them are very costly. Therefore, burial work appears to be inevitable. In order to facilitate the natural decay of a burial body and the
bleaching of bones, we suggest that the body should be buried in loose sandy soil, make deep incisions at various places on the body, and cut the skin at the abdomen and remove major portions of viscera. Regarding the duration of burial, approximate 10 months' time would be adequate provided the cartilaginous parts of the skeleton are spared for separate processing.

Permanent mounting of skeletal bones often limits the accessibility of the specimen for scientific study. In view of future study available, the removable arrangement of bones and external armature mounting with possible dismantling are require. For external armature, metal pipe is ideal. It can be bent to follow the contours of the bone and each piece can be adjusting the shape before welding them together. Moreover, due to the huge size and heavy weight of the white rhinoceros, special care should be taken on the weight could be transmitted to the ground. The pedestals, devised to distribute the weight of the skeleton evenly to the ground, enhance the stability and hence the living style of the mounted skeleton.

The restoration skeleton of the white rhinoceros was constructed in an attempt to breathe life into the bone remains with dynamic, standing in a bit midstride. It is hoped to invite the visitor to imagine the living animal walking.

In the standing posture, the highest point in the white rhinoceros skeleton would be the tip of the sagittal crest of the skull. This was confirmed by having a few live domestic rhinoceroses in zoo standing in a normal position. However, in some museum specimens (e.g., the American Museum of Natural History), the skull is placed slightly degraded and the height of the rhinoceros is measured at the tip of the 2nd thoracic vertebra. Whereas the shoulder height of the rhinoceros is

<table>
<thead>
<tr>
<th>Table 1. Measurements of the skull of <em>Ceratotherium sinum</em> (in mm).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profile length</td>
</tr>
<tr>
<td>Condylobasal length</td>
</tr>
<tr>
<td>Basicranial axis</td>
</tr>
<tr>
<td>Basifacial axis</td>
</tr>
<tr>
<td>Facial length</td>
</tr>
<tr>
<td>Most oral point of the facial crest on the side</td>
</tr>
<tr>
<td>Short lateral facial length</td>
</tr>
<tr>
<td>Length of braincase</td>
</tr>
<tr>
<td>Lateral facial length</td>
</tr>
<tr>
<td>Median palatal length</td>
</tr>
<tr>
<td>Palatal length</td>
</tr>
<tr>
<td>Dental length</td>
</tr>
<tr>
<td>Lateral length of the premaxilla</td>
</tr>
<tr>
<td>Length of the diastema</td>
</tr>
<tr>
<td>Length of the cheektooth row</td>
</tr>
<tr>
<td>Length of the molar row</td>
</tr>
<tr>
<td>Length of the premolar row</td>
</tr>
<tr>
<td>Greatest inner length of the orbit</td>
</tr>
<tr>
<td>Greatest inner height of the orbit</td>
</tr>
<tr>
<td>Greatest mastoid breadth</td>
</tr>
<tr>
<td>Greatest breadth of the occipital condyles</td>
</tr>
<tr>
<td>Greatest breadth of the foramen magnum</td>
</tr>
<tr>
<td>Height of the foramen magnum</td>
</tr>
<tr>
<td>Greatest neurocranium breadth</td>
</tr>
<tr>
<td>Least frontal breadth</td>
</tr>
<tr>
<td>Least breadth between the supraorbital foramina</td>
</tr>
<tr>
<td>Greatest breadth of skull</td>
</tr>
<tr>
<td>Least breadth between the orbits</td>
</tr>
<tr>
<td>Facial breadth between the infraorbital foramina</td>
</tr>
<tr>
<td>Greatest breadth on the curvature of the premaxillae</td>
</tr>
<tr>
<td>Greatest palatal breadth</td>
</tr>
<tr>
<td>Facial height</td>
</tr>
</tbody>
</table>
considered as the standard for the height of a rhinoceros, in a situation where the skull or 2nd thoracic vertebra is higher than natural on a mounted skeleton, the shoulder height can be obtained by reaching the tip of the scapulae. The shoulder height of the white rhinoceros is 147.5 cm and the height at the tip of skull is 183.9 cm.

Foster (1960) listed the measurements of four adult white rhinoceroses, sex not stated, as followed: head and body length 3.35 to 3.77 m; height 1.71 to 1.85 m; weight about 3200 to 3600 kg. The specimen we obtained was a mature male and its length and height are 3.48 m and 1.84 m, respectively, within the ranges of Foster’s measurements. The potential longevity of white rhinoceros is 40-50 years and males may mature in 3 years (Groves, 1972). According to the molars preserved and their wear on occlusal surfaces, this white rhinoceros could be assigned to age class XV, which is equivalent to 30-38 years old. Moreover, the white rhinoceros had been raised in the zoo for over 30 years, after the import from the foreign zoo. We can therefore infer that this white rhinoceros would be a middle-aged animal with the age about 33-38 years old. Since mammals have approximately limited growth in skeleton until sexual maturity, the specimen we obtained would be taken as a representative individual of sexual maturity. Its skull and bones are available as criteria for further comparative study in anatomy with other fossil remains of extinct species of the Rhinocerotidae.

There are two main mammalian faunas in Taiwan during the Pleistocene. One is the "Cho-chen" fauna, which lived between 0.9 and 0.45, and the other is "Penghu" fauna, which considered

Table 2. Measurements of the mandible of *Ceratotherium sinum* (in mm).

| Mandible (left side) | Length from the angle | 535 | Length from the condyle | 553 | Length of the horizontal ramus | 293 | Length of the cheektooth row | 245 | Length of the diastema | 56 | Aboral height of the vertical ramus | 258 | Middle height of the vertical ramus | 212 | Oral height of the vertical ramus | 319 | Height of the mandible behind m3 from the most aboral point of the alveolus | 126 | Height of the mandible in front of m1 | 116 |

Table 3. Measurements of the cheekteeth of *Ceratotherium sinum* (in mm).

<table>
<thead>
<tr>
<th>Upper maxillary teeth</th>
<th>Right</th>
<th>Length</th>
<th>Breadth</th>
<th>Left</th>
<th>Length</th>
<th>Breadth</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>36</td>
<td>34</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>P2</td>
<td>47</td>
<td>45</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>P3</td>
<td>49</td>
<td>60</td>
<td>57</td>
<td>58</td>
<td>57</td>
<td>58</td>
</tr>
<tr>
<td>M1</td>
<td>36</td>
<td>67</td>
<td>37</td>
<td>69</td>
<td>37</td>
<td>69</td>
</tr>
<tr>
<td>M2</td>
<td>37</td>
<td>72</td>
<td>46</td>
<td>74</td>
<td>46</td>
<td>74</td>
</tr>
<tr>
<td>M3</td>
<td>76</td>
<td>63</td>
<td>71</td>
<td>54</td>
<td>71</td>
<td>54</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lower dentary teeth</th>
<th>Right</th>
<th>Length</th>
<th>Breadth</th>
<th>Left</th>
<th>Length</th>
<th>Breadth</th>
</tr>
</thead>
<tbody>
<tr>
<td>p1</td>
<td>-</td>
<td>-</td>
<td>42</td>
<td>24</td>
<td>42</td>
<td>24</td>
</tr>
<tr>
<td>p2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>p3</td>
<td>-</td>
<td>-</td>
<td>39</td>
<td>31</td>
<td>39</td>
<td>31</td>
</tr>
<tr>
<td>m1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>m2</td>
<td>42</td>
<td>31</td>
<td>47</td>
<td>33</td>
<td>47</td>
<td>33</td>
</tr>
<tr>
<td>m3</td>
<td>59</td>
<td>34</td>
<td>61</td>
<td>41</td>
<td>61</td>
<td>41</td>
</tr>
</tbody>
</table>

Abbreviation: P, upper premolar; M, upper molar; p, lower premolar; m, lower molar; Arabic numeral indicates its serial number.
to be of the Late Pleistocene (Chang, 1996). However, remains of the Rhinocerotidae are rare in the fossil assemblages. Only an upper molar M2 had been recovered in the "Cho-chen" fauna and a metacarpal bone had been found in "Penghu" fauna. The characteristic analysis of fossil remains and their comparative studies with extant specimens remain investigation. The present report encourages future studies of vertebrate paleontology on Rhinocerotid fossils.

ACKNOWLEDGMENTS

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REFERENCES


Table 4. Measurements of scapula and pelvis of *Ceratotherium sinum* (in mm).

<table>
<thead>
<tr>
<th>Scapula</th>
<th>Right</th>
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<tbody>
<tr>
<td>Height</td>
<td>511</td>
<td>512</td>
</tr>
<tr>
<td>Diagonal height</td>
<td>450</td>
<td>459</td>
</tr>
<tr>
<td>Greatest dorsal length</td>
<td>271</td>
<td>279</td>
</tr>
<tr>
<td>Smallest length of the Collum scapulae</td>
<td>129</td>
<td>128</td>
</tr>
<tr>
<td>Greatest length of the Processus articularis</td>
<td>162</td>
<td>164</td>
</tr>
<tr>
<td>Length of the glenoid cavity</td>
<td>113</td>
<td>101</td>
</tr>
<tr>
<td>Breadth of the glenoid cavity</td>
<td>100</td>
<td>95</td>
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<table>
<thead>
<tr>
<th>Pelvis</th>
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<tr>
<td>Greatest length of one half</td>
<td>1597</td>
</tr>
<tr>
<td>Length of the acetabulum including the lip</td>
<td>117</td>
</tr>
<tr>
<td>Length of the acetabulum on the rim</td>
<td>106</td>
</tr>
<tr>
<td>Length of the symphysis</td>
<td>239</td>
</tr>
<tr>
<td>Smallest height of the shaft of ilium</td>
<td>102</td>
</tr>
<tr>
<td>Smallest breadth of the shaft of ilium</td>
<td>62</td>
</tr>
<tr>
<td>Smallest circumference of the shaft of ilium</td>
<td>250</td>
</tr>
<tr>
<td>Inner length of the foramen obturatum</td>
<td>102</td>
</tr>
<tr>
<td>Greatest breadth across the tubera coxarum</td>
<td>1878</td>
</tr>
<tr>
<td>Greatest breadth across the acetabula</td>
<td>430</td>
</tr>
<tr>
<td>Greatest breadth across the tubera coxarum</td>
<td>290</td>
</tr>
<tr>
<td>Smallest breadth across the bodies of the ischia</td>
<td>239</td>
</tr>
</tbody>
</table>
Table 5. Measurements of forelimb bones of *Ceratotherium sinum* (in mm).

<table>
<thead>
<tr>
<th>Humerus</th>
<th>Right</th>
<th>Left</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greatest length of the lateral part</td>
<td>465</td>
<td>449</td>
</tr>
<tr>
<td>Greatest length from caput</td>
<td>385</td>
<td>373</td>
</tr>
<tr>
<td>Greatest breadth of the proximal end</td>
<td>120</td>
<td>115</td>
</tr>
<tr>
<td>Depth of the proximal end</td>
<td>183</td>
<td>186</td>
</tr>
<tr>
<td>Smallest breadth of diaphysis</td>
<td>87</td>
<td>78</td>
</tr>
<tr>
<td>Greatest breadth of the distal end</td>
<td>166</td>
<td>183</td>
</tr>
<tr>
<td>Greatest breadth of the trochlea</td>
<td>120</td>
<td>129</td>
</tr>
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<table>
<thead>
<tr>
<th>Radius</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Greatest length</td>
<td>365</td>
<td>392</td>
</tr>
<tr>
<td>Length of the lateral part</td>
<td>345</td>
<td>332</td>
</tr>
<tr>
<td>Greatest breadth of the proximal end</td>
<td>125</td>
<td>122</td>
</tr>
<tr>
<td>Greatest breadth of the facies articularis proximalis</td>
<td>108</td>
<td>111</td>
</tr>
<tr>
<td>Greatest breadth of the distal end</td>
<td>118</td>
<td>117</td>
</tr>
<tr>
<td>Greatest breadth of the facies articularis distalis</td>
<td>91</td>
<td>88</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Ulna</th>
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</tr>
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<tbody>
<tr>
<td>Greatest length</td>
<td>485</td>
<td>475</td>
</tr>
<tr>
<td>Length of the olecranon</td>
<td>178</td>
<td>150</td>
</tr>
<tr>
<td>Greatest breadth across the coronoid process</td>
<td>114</td>
<td>119</td>
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<table>
<thead>
<tr>
<th>Metatarsus</th>
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<tr>
<td></td>
<td>II</td>
<td>III</td>
<td>IV</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>Greatest length</td>
<td>130</td>
<td>188</td>
<td>153</td>
<td>165</td>
<td>192</td>
</tr>
<tr>
<td>Greatest breadth of the proximal end</td>
<td>53</td>
<td>76</td>
<td>54</td>
<td>49</td>
<td>75</td>
</tr>
<tr>
<td>Smallest breadth of the diaphysis</td>
<td>40</td>
<td>54</td>
<td>41</td>
<td>39</td>
<td>56</td>
</tr>
<tr>
<td>Smallest circumference of the diaphysis</td>
<td>111</td>
<td>138</td>
<td>108</td>
<td>115</td>
<td>140</td>
</tr>
<tr>
<td>Greatest breadth of the distal end</td>
<td>63</td>
<td>78</td>
<td>58</td>
<td>52</td>
<td>79</td>
</tr>
</tbody>
</table>

Table 6. Measurements of hindlimb bones of *Ceratotherium sinum* (in mm).

<table>
<thead>
<tr>
<th>Femur</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Greatest length</td>
<td>518</td>
<td>512</td>
</tr>
<tr>
<td>Greatest length from caput femoris</td>
<td>503</td>
<td>509</td>
</tr>
<tr>
<td>Greatest breadth of the proximal end</td>
<td>219</td>
<td>217</td>
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Table 7. Measurements of atlas, axis, and sacrum of *Ceratotherium sinum* (in mm).

**Atlas**

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**Axis**

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**Sacrum**

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Table 8. Measurements of other vertebrae of *Ceratotherium sinum* (in mm).

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<th>H&lt;sup&gt;c&lt;/sup&gt;</th>
<th>PL&lt;sup&gt;d&lt;/sup&gt;</th>
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<sup>a</sup> greatest length from the processes articulares craniales to the processus articulares caudales;  
<sup>b</sup> greatest breadth across the processus transverse;  
<sup>c</sup> greatest height;  
<sup>d</sup> physiological length of the body;  
<sup>e</sup> greatest breadth of the facies terminalis caudalis;  
<sup>f</sup> greatest height of the facies terminalis caudalis
Table 9. Measurements of the ribs of *Ceratotherium sinum* (in mm).

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</table>

A, arch length; B, width at middle; C, distance between proximal and distal ends

白犀牛 (*Ceratotherium sinum*) 骨骼標本製作與裝架之探討

張鈞翔¹章晨政²

¹國立自然科學博物館地質學組
²國立自然科學博物館典藏管理組

本文記錄於2003年3月挖掘埋藏於六福村野生動物園之現生白犀牛，描述白犀牛骨骼標本之製作與裝架過程，並詳細記錄形態與骨骼之特徵，以及各項形態測量資料。該白犀牛為備性成熟年長個體，已病飼養三十年，死亡原因不明。裝架完成的骨骼全長為348 公分，肩高為147.5 公分。該白犀牛的上顎臼齒齒質呈環狀且珠圓質片化，顯示臼齒磨蝕劇烈，推測為一近趨老年的個體。該骨骼標本之裝架以二管屬圓管為垂直主支幹，輔以四肢骨之外走金屬次支幹，以支撐骨架之重量，並連結頸骨、脊椎骨與股骨部位。裝架完成的立姿骨架，除具有展示教育之功能之外，各部位骨骼標本亦提供對犀牛化石之鑑別分析與研究之基礎比對材料。

關鍵詞：*Ceratotherium sinum*，白犀牛，骨架。