

The Classical Rhinoceros

by SIR WILLIAM GOWERS

BY the term 'classical rhinoceros' I mean the rhinoceros which was known to the Greek and Roman world during the five and a half centuries between 300 B.C. and A.D. 250, which was shown from time to time at Alexandria under the Ptolemies and later on appeared regularly in the arena at Rome taking part in fights with other beasts and with men. Although the Indian rhinoceros seems occasionally to have been exhibited at Rome, at any rate in the early years of the Empire, I believe that the rhinoceros usually shown there came from Africa, and I have tried to analyse such evidence as is available to show firstly what species it was and secondly what part of Africa it came from.

There are, of course, two quite distinct kinds of African rhinoceros, the square-mouthed and the prehensile-lipped, popularly known respectively as the White and the Black Rhinoceros. Until recently their scientific names were *Rhinoceros simus* and *Rhinoceros bicornis*, but systematists have now separated them into two genera, calling the former *Ceratotherium simum* and the latter *Diceros bicornis*; denying to both the title of *Rhinoceros* which they reserve for the Indian rhinoceros and its near Asiatic relatives. For the sake of simplicity and brevity I shall retain the old names and call them *simus* and *bicornis*.

The popular misnomers of 'white' and 'black' are a legacy from the South African Dutch of the 17th century, who called *simus* 'wit renaster' and *bicornis* 'zwart renaster'. They were not very particular about exact shades of colour and probably meant no more than that one species usually appeared much lighter than the other. The natural colour of both appears much the same to an observer a little distance away. The hide of *simus* may be slightly lighter. Perhaps the most accurate definition is given by Roosevelt and Heller (1) who say that the true colour of *simus* is smoke-grey while that of *bicornis* is dark clove-brown.

The apparently light colour of *simus* which impressed ancient as well as modern observers is as a rule due to the habit, to which it is much more addicted than *bicornis*, of wallowing daily in muddy pools, the mud from which drying on its hide gives it often a much lighter colour than its natural one, the precise shade depending on the nature of the soil. Cornwallis Harris (2) who more than a century ago observed large numbers in South Africa—as many as eighty in one day's march—writes 'The outer coat acquired by constantly wallowing in pools often approaches cream colour'. *Bicornis* generally shows up in its natural dark colour but never looks really black like, for instance, the Cape Buffalo.

Simus is purely a grazing animal and its food consists of nothing but grass and such weeds as may accidentally be taken up with grass as cattle may do. *Bicornis* is a browser living almost entirely on the leaves and shoots of bushes, occasionally eating roots. *Simus* is much more dependent on water, both for drinking and wallowing, than is *bicornis* which can exist in arid and stony localities where *simus* could not survive. Finally,

¹ Theodore Roosevelt and E. Heller, *Game Animals of Africa* (1915), p. 670, see also Herbert Lang, 'The White Rhinoceros of the Belgian Congo', *N.Y. Zool. Bulletin*, July 1920, p. 75.

² Capt. (later Sir W.) Cornwallis Harris, *Portraits of Game and Wild Animals* (1840), p. 98.

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simus is much the larger animal, being indeed next to the elephant the largest land mammal, and probably weighs at least half as much again as *bicornis*.

Since the evidence I am concerned with is largely pictorial I will mention some characteristics of *simus* some of which are always shown (sometimes emphasized or exaggerated) in ancient representations of it. They are (1) the great size and length of the head in proportion to the body, (2) the low downward-pointing carriage of the head; when travelling or standing at ease the muzzle nearly touches the ground, whereas the head of *bicornis* is held nearly horizontal, (3) a pronounced nuchal hump, just in front of the shoulders, (4) a great disparity in size between the front and rear horn—much greater than is usually found in *bicornis*, (5) a habit peculiar to *simus* when alarmed or excited of carrying its tail curled in a circle or ringlet (FIG. 7). *Bicornis* never does this; its alarm signal is to raise the tail vertically as shown in FIG. 8. A curled-up tail is a certain indication that the animal depicted is *simus*.

The classical rhinoceros during the three centuries in which it appeared in Rome seems always to have been obtained through Egypt. The distribution of the rhinoceros in early times in the Nile basin therefore becomes relevant.

The earliest evidence about this is a rock drawing on a sandstone cliff to the west of the Nile at El-Hosh (Lat. 24°-30° N) between Idfu and Assuan—discovered by H. A. Winkler (3), who states that it is the only rock drawing of a rhinoceros yet found in Egypt. It is shown in a procession of animals including elephant, antelope and gazelle. Winkler does not attempt to date it otherwise than by ascribing it to the 'autochthonous mountain-dwellers'. It looks rather like a caricature and not nearly so naturalistic as many of the earlier prehistoric rock carvings and drawings, e.g. that shown in FIG. 1 from much the same latitude in Libya (4). But it undoubtedly represents *simus*.

The next evidence chronologically is from the pottery models of rhinoceros horns found by Col. W. B. Emery (5) in the tomb of Hor-Aha at Saqqara—date about 3000 B.C. From the photographs they look very accurate models and their length and shape approximate to *simus* rather than *bicornis*. Moreover there is so far as I know no record of the existence at any time of *bicornis* in any locality whence the originals could have been obtained and brought to Lower Egypt at this date, whereas there is evidence of the existence of *simus* in Upper Egypt and Nubia both before and after the date of the Saqqara models.

The next item of evidence comes from Kerma about 30 miles north of Dongola (6), where there was an Egyptian trading outpost in Nubia and its date is between 1780 and 1680 B.C. It consists of an ivory or bone inlay and a raw-hide silhouette, both representing rhinoceros. The latter has its head damaged and the front horn broken off but I think it is certain, as already suggested by Hiltzheimer, that both this and the inlay (FIG. 4) represent *simus*.

The latest evidence from ancient Egypt is provided by Mond and Myers, from Armant near Luxor (7). A frieze on a pylon of the temple here shows an animal said to be a rhinoceros; it must have been drawn by an artist who had never seen one alive

³ H. A. Winkler, *Rock Drawings of Southern Upper Egypt* (1938), vol. 1, p. 21 and pl. xx and xxi.

⁴ Paolo Graziosi, *L'Arte Rupestre della Libia* (1941) vol. II, pl. 134a.

⁵ W. B. Emery, *The Tomb of Hor-Aha* (Saqqara Excavations 1939), p. 72.

⁶ G. A. Reisner, *Excavations at Kerma* (Harvard African Studies, 1923), vol. VI, pl. 53a.

M. Hiltzheimer, *Zeitschr. f. Aegyptische Sprache*, vol. 69 (1931), p. 72.

⁷ Sir R. Mond and O. Myers, *The Temple of Armant* (1940), p. 25, pl. 8 and 103.

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and in itself is of no value as an indication of species. But here was also found a stele of Tuthmosis III recording *inter alia* that in the course of an expedition into Nubia he killed a rhinoceros. The pictograph is like *simus*, and since the Kerma images provide evidence of the presence of *simus* in Nubia two or three centuries earlier we may reasonably assume that Tuthmosis' rhinoceros was also *simus* and that it existed there in the middle of the second millennium B.C.

I know of no more evidence from ancient Egypt. In the Sudan, however, a rock-drawing of a rhinoceros, which must be *simus* has been recorded from Northern Darfur by A. J. Arkell, *Sudan Notes and Records*, vol. xx, p. 281. To come down to much more recent times we have the story in Pseudo-Callisthenes (8) of the eighty rhinoceros offered to Alexander the Great in 331 B.C. by a much antedated Candace queen of Meroe, as to which we may say that the legend would probably not have originated unless rhinoceros had been common in the Meroitic kingdom at that date.

There can I think be no doubt of this. We have the record of Ptolemy II's 'Ethiopian' rhinoceros (*infra*), and some 350 years later Pliny (N.H. VI, 35) referring to the exploring expedition sent by Nero to the Sudan in A.D. 65 says that they reported that when they reached the neighbourhood of Meroe (about Lat. 17 N.) *herbas demum viridiores sylvarumque aliquid apparuisse, et rhinocerotum elephantorumque vestigia*.

Assuming that these rhinoceros were of the same species as those recorded from Nubia by the ancient Egyptians—and there is no reason to doubt it—we seem to have a picture in the Nile basin of a gradual retreat by *simus* due to increasing aridity from a northern front of at least 25 N in the 4th millennium B.C. to about 19 N in the second millennium and 17 by the beginning of the Christian era (9). About this point in the Nile valley it was probably stabilized for a considerable time having reached a region where rainfall was sufficient for the grass it needed. The most northerly point at which *simus* has been recorded recently (1927) is Goz-Beida in Wadai in Lat. 12 N about 70 miles from the western frontier of Darfur (10).

An unfordable river is a complete barrier to the movement of rhinoceros and I feel doubtful whether the distribution of *simus* in Egypt and the Sudan ever extended to the east of the Nile. That it existed in Eastern Africa South of the Equator in prehistoric times is shown by the rock drawings from Kisese in Tanganyika figured by Leakey (FIG. 2) (11), but whether it existed throughout East Africa at this time and if so what caused its complete disappearance from territories where *bicornis* continues to flourish is a mystery as yet unsolved.

What we do know is that the migration of *simus* in modern times in an east south easterly direction from Lake Chad, Kanem, Bagirmi, Wadai and the Ubangi-Shari has been held up at the Nile on a front of some 400 miles north of Lake Albert. It seems to me possible that it only reached the Nile in these latitudes some 50 or 60 years ago. Otherwise its existence must surely have been detected by such observers as Baker, Junker Schweinfurth and Emin, who spent years in or close to the region where it is now

⁸ Pseudo-Callisthenes, *Hist. Alex Magni* III, 18 (ed. W. Kroll, Berlin, 1926).

⁹ S. A. Huzzayin, *The Place of Egypt in Prehistory* (1941), p. 285, thinks there was in Saharan latitudes, in the 1st millennium B.C. until early A.D. a phase of increased rainfall which may be equated with Leakey's Nakuran wet phase. This, if so, would slow up the southerly retreat of *simus*.

¹⁰ L. Lavauden, *Faune des Colonies Françaises* (1933-4), p. 420. Lavauden also records that in 1927 there were stored in Khartum, in transit from Wadai, no less than 150 *simus* horns. Major W. R. Barker, lately Game Warden in the Sudan, corroborates.

¹¹ L. S. B. Leakey, *Stone Age Africa* (1936), ch. viii, fig. 27.

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most common. The real discoverer or re-discoverer of the northern geographical—no doubt the original—race of *simus* was von Heuglin (12), but he met with it 200 miles or more West of the Nile.

The first African rhinoceros to be mentioned by classical writers was the one which was exhibited at Alexandria in the great procession in 284 B.C. at the festival of Dionysus which coincided with the accession of Ptolemy Philadelphus. It is mentioned by Athenaeus (v. 201(c)) on the authority of Callixeinus. It is described as 'Αιθιοπικός, a term which often has a very vague geographical connotation but which at that date in Egypt must have meant that it came from Nilotic Ethiopia, i.e. the kingdom of Meroe, with the ruler of which Ptolemy was on good terms and from whom he may well have obtained it.

The only picture of a rhinoceros in Ptolemaic times is in a frieze in one of the rock tombs at Merissa (13) in Southern Palestine—the old Idumaea. It was drawn about 200 B.C., when Palestine was under Egyptian rule. The animal, labelled 'rhinoceros', is among other animals associated with Egypt, which are well executed—next to it is an African elephant. But the so-called rhinoceros is evidently done from a description only and the only inference to be drawn from it is that it had been described to the artist as being like a gigantic pig, with a horn at the end of its nose and an extremely minute horn behind this.

The earliest description of an African rhinoceros that we have is from the geographer Agatharchides who wrote about 130 B.C. (14). He lived for a long time at Alexandria and, as he says, had access to the reports and memoranda, in the royal archives, of the early explorers of the Red Sea coasts and of the officers who were stationed there. The description comes in his account of the fauna of the 'Trogodyte' country, i.e. the modern Eritrea and northern Somaliland. He says that the length of the rhinoceros is about the same as that of an elephant but its height is less. This would be true of *simus*, which may be as much as 13 feet long—about the same as the species of elephant known to Egypt at that time. Its colour, he says, is like boxwood; here he agrees with the Dutch who called it white and with Harris's 'cream colour' (*supra*). It has a bent-back (*σιμόν*) horn on the end of its nose as tough as iron. No mention is made of a second horn and this points to *simus* rather than *bicornis*. The rear horn of *simus* is often negligible, consisting of a mere knob so that an observer might well describe it as one-horned. Harris writes that while the front horn is a formidable weapon 3½ feet long 'the other horn is generally such a mere excrescence that at a distance of even a few yards it is barely perceptible' (15). In the middle of the 19th century the Arab traders who brought *simus*

¹² Th. von Heuglin, *Reise in das Gebiet des Weissen Nil* (1869), p. 361. *Simus* could not have travelled due south from E. Kordofan; the Bahr-al-Ghazal would have prevented it.

In 1825 a pair of *simus* horns had been brought to England by Major Denham from the vicinity of Chad, but they were not then recognised as *simus*, which was believed to exist only in South Africa, where it had been 'discovered' and named by Burchell some 10 years earlier.

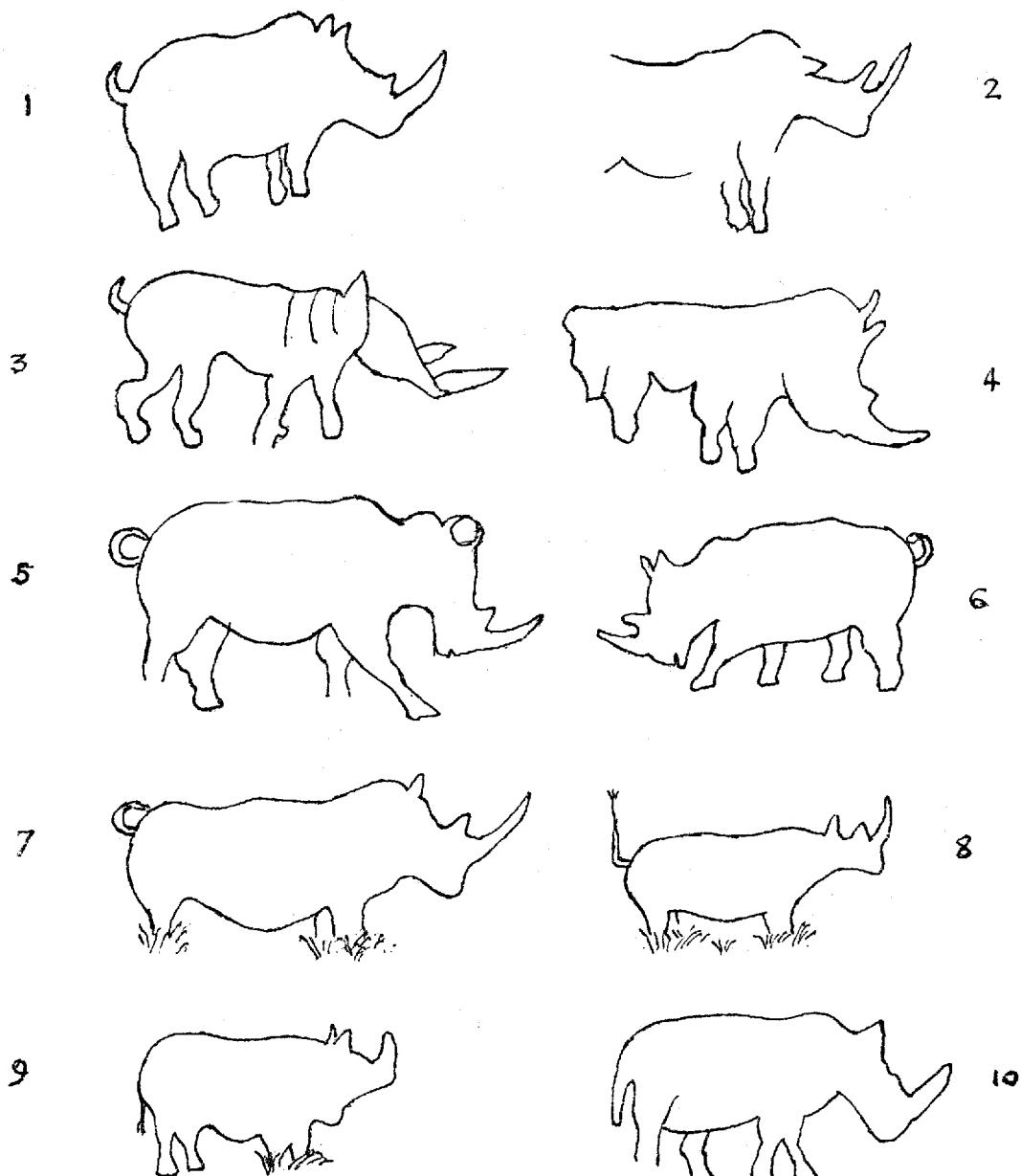
¹³ J. P. Peters and H. Thiersch, *The Painted Tombs of Merissa* (1903), (Palestine Exploration Fund).

¹⁴ Agatharchides, *De Mari Erythraeo* (P. 71), in C. F. Mueller's *Geographi Graeci Minores* (1856), vol. I.

¹⁵ Op. cit., p. 98. Modern records show that the front horn of *simus* is on the average nearly four times as long as the rear horn while in *bicornis* it is a little less than twice as long. I am inclined to think that since *simus* has been confined to semi-forest country it does not develop such long front horns as it did when it lived on the open plains.

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PROFILES OF RHINOCEROS (not to scale)



6. ROME A.D. 95 (Coin of Domitian: $\times 3$)
 7. R. SIMUS
 8. R. BICORNIS
 9. R. UNICORNIS
 10. ROMAN TESSERA, 1st century A.D.
 (Rostovtsev No. 486) ($\times 3$)
- From recent
photographs from life*

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horns from Kanem and Wadai for sale in Tripoli and Jeddah were firmly persuaded that the animal had only one horn (16).

Agatharchides goes on to say that when the rhinoceros comes across a rock he sharpens his horn on it so as to be ready to encounter the elephant with which he constantly has disputes about the pasture — περὶ τῆς νομῆς — and which he often kills by driving his horn from underneath into the elephant's belly. I should not like to say that such fights were impossible where elephants and *simus* were in numbers on the same grass lands. I have seen an elephant drive off a buffalo that he thought was grazing too close to him, and *simus* might resent this. Roosevelt and Heller write 'One of the few white rhinoceros in the South African Game Reserve, a bull, was charged and killed by a stab behind the shoulder by a bull elephant which was also in the Reserve'. The belief in fights between the two was very persistent in ancient times ; it is repeated by Diodorus, Pliny, Dio Cassius and Aelian.

One cannot believe the story of the rhinoceros deliberately sharpening his horn, but it is evidently an attempt to account for an actual characteristic of *simus*. The anterior horn always has its front surface flattened, looking rather as if it had been filed. Attention was first drawn to this by Selous in 1881 (17) : 'I never remember to have seen a horn of the square-mouthed rhinoceros that was perfectly round ; they always have the front surface partially flattened by friction and may thus at a glance be distinguished from the invariably rounded horns of the prehensile-lipped rhinoceros'. The flattening is caused by continual abrasion on the matted roots of grasses, perhaps also on the ground, as *simus* grazes with its nostrils nearly touching the ground and its horn held horizontally in front. By repeating the horn-sharpening fable Agatharchides actually gives a pointer to the kind of rhinoceros he is describing.

This rhinoceros may have lived on the Eritrean plateau or the coastal plain below it, where as we know from the author of the *Periplus Maris Erythraei* rhinoceros were still very common towards the end of the first century A.D. ; and Pliny writes (N.H. vi. 173) that rhinoceros horns were an important item of export from the Eritrean port of Adulis. We have however no conclusive evidence that *simus* ever existed in that locality. Cosmas Indicopleustes (18) in the 6th century describes the rhinoceros he saw in this region in terms which seems to me to indicate *bicornis* rather than *simus*. *Bicornis* was widespread in Abyssinia and Somaliland 100 years ago and still exists in small numbers. I think it possible that Agatharchides took from his early authorities merely the fact that rhinoceros existed in the 'Trogodyte' country and, assuming that all rhinoceros were alike, relied very naturally for his description of the animal and his account of its habits on what he had seen and heard of the Nilotic rhinoceros during the years that he lived in Alexandria—as Artemidorus did after him. That he was describing *simus* I feel sure, but I do not feel so sure that it lived in the Red Sea territories as well as on the Nile.

¹⁶ E. L. Trouessart, 'Le Rhinoceros blanc du Soudan', *Proc. Zool. Soc. Lond.* (1909), p. 198 ; quoting Fresnel (*C. R. del' Ac. des Sciences Paris*, 1848), t. xxvi, p. 281.

¹⁷ F. C. Selous, 'The South African Rhinoceroses', *P.Z.S.*, 1881, p. 725.

¹⁸ Cosmas Indicopleustes, *Topographia Christiana*, xi, 441, edit. E. O. Winstedt (1909). He says he watched a rhino from a safe distance and made a careful drawing from a specimen (stuffed) in the King's palace at Axum. This must have been lost as the picture in the 13th century 'Laurentian' MS cannot have been drawn by Cosmas or anyone who had seen a rhino. His description gives it two horns and a hide rather like an elephant. It is φοβερώτατον πάνυ μάλιστα. (Africans generally are terrified of *bicornis* but not afraid of *simus*.) It is possible that both species co-existed in Eritrea in Ptolemaic times and that by Cosmas' day *simus* had been exterminated there.

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The next description is by Artemidorus, who wrote some 30 years after Agatharchides, in a work on the Red Sea which Strabo (xvi, 4, 15) quotes in giving an account of the fauna of the Somali coast between the straits of Bab el Mandeb and Guardafui. His description closely followed that of Agatharchides (whom Artemidorus generally follows) and to have been confirmed by his own observation of a rhinoceros, no doubt *simus*, which he had seen at Alexandria, probably in the royal Zoo. But Strabo, writing a century after Artemidorus disagrees with the description. He disagrees as to the length of the body and as to the colour, which he says is not like boxwood but more like that of an elephant. Its height he says is that of a bull and in shape it is most like a wild boar especially about the head except for the horn on its nose 'tougher than any bone'. He goes on: *ἔχει δέ τύλους δύο ὡς οὐν σπείρας δρακόντων*—it has two raised ridges like the coils of snakes, from the spine to the belly, one at the shoulders one at the loins. Strabo is certainly describing the folds of skin of an Indian rhinoceros which he had probably seen at Rome; if he had seen it at Alexandria, where Artemidorus saw his, I think he would have said so; and there is no reason to think that Indian rhinoceros were ever brought to Alexandria. To him and his contemporaries a rhinoceros was just a rhinoceros; he had no idea that a rhinoceros from India was a quite different animal. He had to believe the evidence of his own eyes and not unnaturally concluded that his usual authority Artemidorus had made for once an unaccountable mistake. Suetonius (Div. Aug. 43, 4) says that Augustus, apart from the regular *spectacula*, used to exhibit specially any noteworthy rarity which might have been brought to Rome, and showed thus a rhinoceros in the Campus Martius and a tiger on the stage. Pliny (N.H. VIII, xxiv, 65) tells us that in 11 B.C. Augustus exhibited a tame tiger—the first tiger ever seen at Rome; and it may be that the rhinoceros which Strabo saw was the one mentioned by Suetonius as being shown at the same time as a tiger. Both were probably gifts from Indian rulers who from time to time sent embassies to Rome with offerings which on one occasion included elephants (Florus II, 34).

A marble relief from Pompeii figured by Keller (19) shows a rather conventionalized Indian rhinoceros dressed in some fabric cut so as to resemble a coat of armour; the design may have been based on this or another rhinoceros similarly exhibited. I know of nothing to indicate that at Rome an Indian rhinoceros was anything but a great rarity.

The rhinoceros was first seen at Rome according to Pliny (N.H. VIII, xxix, 71) in 55 B.C., at the great *spectacula* staged by Pompey in the year of his consulship. Pliny describes it as *unius in nare cornus, qualis saepe visus*. This has led Warmington (20), followed by Jennison (21), to suppose that from this date to the time of Vespasian it was the Indian rhinoceros (*Rhinoceros unicornis*) which was regularly seen in the arena at Rome. But Pliny was merely copying Agatharchides, as the rest of the passage shows, and I cannot believe that Agatharchides was describing, in 130 B.C., an Indian rhinoceros. Solinus (43) while following Pliny's description implies clearly that Pompey's rhinoceros came from Ethiopia. The spectacles of 55 B.C. coincided with the date of the restoration to the throne of Egypt (largely by Pompey's help) of Ptolemy Auletes; and it is quite natural to suppose that Ptolemy supplied an Ethiopian rhinoceros for the festival. Jennison indeed suggests that Ptolemy supplied the rhinoceros but that it had been imported to Egypt from India, which seems to me highly improbable.

¹⁹ Otto Keller, *Die Antike Tierwelt* (1909), p. 387.

²⁰ E. H. Warmington, *Commerce Between the Roman Empire and India* (1928), p. 151 and note p. 360.

²¹ G. Jennison, *Animals for Show and Pleasure in Ancient Rome* (1937), p. 34.

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There is a life-like representation of a White Rhinoceros in a black and white mosaic in Perugia (figured in *Notizie degli Scavi* (1877) pl. xi) attributed to the time of Augustus. The rhinoceros appears among other animals being charmed by Orpheus; they include elephant, aurochs, stag, lion, leopard and bear. All of these could no doubt be seen at that time either in the arena or in the *vivaria* on the outskirts of Rome; they give the impression of having been drawn from life. The rhinoceros is shown as practically one-horned, with an indication of a rudimentary second horn just behind the first. If Pliny had seen such an animal he would certainly have described it as *unius cornus*.

Figures of rhinoceros appear on some of the leaden *tesserae* (22)—tokens or counters—which under the Roman Empire were issued to the public for the purpose of giving admission to the *spectacula*. Some of these show only one horn, and Warmington (op. cit.) regards them as representing Indian rhinoceros. But the Indian rhinoceros has a comparatively small head, held rather high (FIG. 9); very different from the massive down-pointing head shown on the *tesserae* (FIG. 10). This I regard as a more reliable indication of species as between the Indian *unicornis* and the African *simus* than the presence or absence of a second horn in these rather primitive designs. On all the *tesserae* I have seen I believe the rhinoceros figured is *simus*. One, in the British Museum, has a rhinoceros on one side and a crocodile on the other, suggesting a Nilotic origin for both.

A rhinoceros is shown in a section of the mosaic now in the Palazzo Barberini at Palestrina (Praeneste) (23) which purports to depict the scenery of the Egyptian Sudan including the Nile and its fauna. There are two small horns, very close together, and a pronounced hump behind the head. The mosaic probably dates from the 2nd century.

The next rhinoceros, after Pompey's, mentioned by the ancient writers was seen in 29 B.C. at the shows put on by Octavian to celebrate the defeat of Antony and Cleopatra and the annexation of Egypt. Dio Cassius (LI, 22, 5) records that among the beasts slaughtered were a rhinoceros and a hippopotamus, both seen then for the first time at Rome. (*πρῶτον τότε ἐν τῇ Ρώμῃ ὀφθέντα*). In saying this Dio ignores Pompey's earlier rhinoceros, and also the hippopotamus shown by Scaurus in 58 B.C. The occasion of the spectacles and the juxtaposition of rhinoceros and hippopotamus strongly suggest that the former came from Egypt, as the latter must have done.

Dio records that towards the end of the reign of Augustus, in A.D. 8, an elephant defeated a rhinoceros in a fight in the arena, but nothing is said as to its origin.

After this there is a long gap in the literary records about the rhinoceros but we need not infer that it did not continue to be exhibited regularly. Pliny's *saepe visus* and its images on the *tesserae* suggest that it was.

The next literary allusions come from Martial's *De Spectaculis*—a book of epigrams written to commemorate the opening of the Colosseum by the Emperor Titus in A.D. 80. Epigram 22 is well known—

Sollicitant pavidi dum rhinocerota magistri
seque diu magnae colligit ira ferae
desperabantur promissi praelia Martis
sed tandem rediit cognitus ante furor.
Namque gravem cornu gemino sic extulit ursum
iactat ut impositas taurus ad astra pilas . . .

²² M. I. Rostovtsev, *Sylloge Tesserarum Plumbearum* (St. Petersburg, 1903). A good example of a rhinoceros with one horn which is clearly *simus* is no. 486, tab. IV, 7.

²³ G. E. Rizzo, *Pittura Ellenistica Romana* (1929), pl. 188, 189.

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and Martial goes on to tell how the rhinoceros defeated a *bubalus* (probably an aurochs) and a bison, while a lion fled headlong from it.

The difficulty of the keepers in rousing it to the requisite pitch of irritation suggests the placid *simus* rather than the testy *bicornis*; but one has no need to speculate about its species since conclusive evidence is supplied by two bronze coins of Domitian, whose reign began the year after the *De Spectaculis* was published. Suetonius says of Domitian '*spectacula assidue magnifica et sumptuosa edidit*' and he may have taken a special interest in rhinoceros.

The earlier of these coins (24) was struck in Alexandria, for circulation in Egypt, in A.D. 91, the second in Rome four years later. (25) A rhinoceros occupies the whole of the reverse of each. Outlines of the animals taken from enlarged photographs are shown here as FIGS. 5 and 6. No one familiar with the African rhinoceros can I think feel any doubt as to the species they represent. The nuchal hump is not well shown but the curled tail, the square mouth and the size and carriage of the head are characteristic of *simus*.

A coin of Hadrian (26) (mint of Alexandria) of A.D. 127 also shows *simus* but the design is somewhat defaced and not so clear as in the coins of Domitian, though the large size of the head is even better indicated.

Antoninus Pius (*Hist. Augusta*, A.P. x) is said to have shown on one occasion (perhaps A.D. 149) elephants, hyenas and tigers—which probably came from Asia—and rhinoceros, crocodiles and hippopotami (from Africa). The historians and biographers make no allusion to it during the reign of Marcus Aurelius (as one might expect) but Commodus is said by Dio to have killed more than one rhinoceros in the arena and Caracalla also killed one. The *Historia Augusta* (El. xxviii, 8) speaking of the collection of animals which Elagabalus (A.D. 220) kept at Rome says *habuit et hippopotamos et crocodilum et rhinocerotem et omnia Aegyptia quae per naturam sui exhiberi poterant*, which indicates that the rhinoceros was still considered an essentially Egyptian product.

Pausanias (c. A.D. 170) writes—more accurately than his contemporaries—that he saw at Rome 'Ethiopian bulls' called rhinoceros because they have a horn on the end of the nose and another smaller one behind it. Aelian (c. A.D. 215) in his *Historia Animalium* writes that it would be merely tedious for him to describe its appearance since so many Greeks and Romans had seen it—and then proceeds to repeat Agatharchides almost word for word (27).

The latest mention of the classical rhinoceros at Rome is in the *Historia Augusta* (Gordiani Tres. 33). Among the animals collected for Gordian's Persian triumph, and eventually shown by Philip the Arabian in A.D. 248, were six hippopotami and one rhinoceros. That this should be the last mention of the rhinoceros at Rome is just what we should expect if, as I believe, it was always obtained from Ethiopia. For in A.D. 250 occurred the revolt of the Blemmyes and their attacks on Egypt, which inaugurated a period in which Rome lost for ever all control and influence in Nubia and the Meroitic kingdom, which itself was conquered by the Axumite Abyssinians a century later.

²⁴ B. M. C. *Domitian* no. 333. An interesting feature of this coin is the sphere or disk on top of the head between the ears.

²⁵ B.M.C. Cat. *Roman Empire*, vol. II, p. 411 and pl. 31, 17.

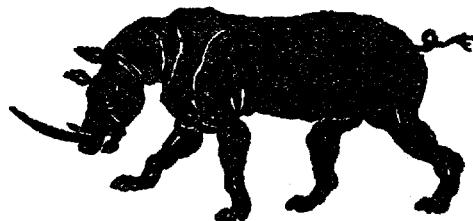
²⁶ B.M.C. *Hadrian*, no. 835.

²⁷ Agatharchides' original description of the African rhinoceros, copied by Pliny, who very likely had never seen one, became the standard description and was used by e.g. Dio Cassius and Aelian long after the second horn had been shown on coins.

ANTIQUITY

After A.D. 250 it would, I think, have been impossible for the Romans to obtain any more rhinoceros from the Sudan.

There does not seem to have been any other source from which the Romans could have regularly obtained rhinoceros during the three centuries during which they were shown at Rome. In prehistoric ages *simus* was widespread throughout North Africa and the Sahara and it is just possible that it may have lingered in Roman Africa even into historical times in a few climatically favoured spots. But no writer refers to its existence there and even the Saharan rhinoceros is, I think, only once referred to—in the well known passage of Ptolemy (1, 8) quoting Marinus of Tyre's description of an expedition by Julius Maternus at the end of the 1st century A.D. which started from



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Leptis Magna and passed through the country of the Garamantes (Fezzan) with the object of subduing some rebellious 'Aethiopians' in the South. At its furthest south the expedition reached the region of Agisymba 'where the rhinoceros congregate'. It seems most likely that Agisymba was the Tibesti plateau (about Lat. 20 N) (28). The wording does not suggest that there was anything remarkable in seeing rhinoceros on the journey, only in seeing so many in one locality. The explanation no doubt is that as the desiccation of the Sahara and the Libyan desert progressed the higher plateaux such as Tibesti were the only localities which still had enough rainfall to provide water and grazing for *simus*—at any rate in any numbers.

The province of Roman Africa being excluded as a source of supply, the only remaining alternative to the Sudan is the coastal belt of the Red Sea—Eritrea and Somaliland. This would have involved shipping the rhinoceros to Myos Hormos (Kosseir) or Berenice, with an overland journey to the Nile (29). The Ptolemies did this in the 3rd century B.C. with elephants, which were all-important to them, but it seems very unlikely that either they or the Romans ever did it with rhinoceros. There was no need to; transport down the Nile from the Meroitic kingdom would be simpler and easier. Moreover during the period in which *simus* was regularly brought to Rome it is not certain that it existed in the Red Sea territories; and nothing to indicate that African rhinoceros were ever brought to Rome otherwise than by way of Egypt.

There is no evidence either literary or pictorial that *bicornis* was ever brought to Egypt or Rome. It seems probable that the geographical distribution of *bicornis* has

²⁸ F. R. Rodd (now Lord Rennell), *People of the Veil*, p. 318. Seventeen centuries after Maternus' expedition *simus* was still common some four or five hundred miles south of Tibesti.

²⁹ The Gulf of Suez and the canal to the Nile seem not to have been used, at any rate by north-bound craft.

THE CLASSICAL RHINOCEROS

not altered appreciably in the last 2000 years except in peripheral areas owing to its destruction by man since the general use of firearms (30), and that it existed in the Sudan in the days of the Roman Empire in much the same area that it inhabited 100 years ago; that is to say East of a line running roughly s. by w. from Tokar through Kassala—too far from the White Nile for convenient transport to Egypt. Moreover it is more aggressive and dangerous, more elusive when persecuted, and I think more difficult to handle unless caught when very young, than is *simus*. It seems unlikely that the Romans would wish to import *bicornis* if they could get the larger and more impressive *simus* with less trouble.

I think that after considering all the items of evidence set out above we are justified in believing that the classical rhinoceros was the White Rhinoceros as we know it today, and that it came from the Nilotic Sudan, probably from the West bank of the White Nile where (though much further South than in Roman times) it still survives in larger numbers than elsewhere (31).

³⁰ The persistence of *bicornis* is illustrated by the fact that when it was found necessary recently to eliminate it from an area of some 600 square miles of dense bush, which was required for native settlement not much more than 100 miles from the capital of Kenya Colony, not less than 1000 rhinoceros had to be killed.

³¹ There may be at most 2000 *simus* still alive in Africa, of which about half are believed to be in the Bahr-al-Ghazal province of the Anglo-Egyptian Sudan.