SPIXIANA	34	1	133–144	München, September 2011	ISSN 0341–8391

The history of the unique type of *Rhinoceros cucullatus*, with remarks on observations in Ethiopia by James Bruce and William Cornwallis Harris

(Mammalia, Rhinocerotidae)

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Rookmaaker, L. C. & Kraft, R. 2011. The history of the unique type of *Rhinoceros cucullatus*, with remarks on observations in Ethiopia by James Bruce and William Cornwallis Harris (Mammalia, Rhinocerotidae). Spixiana 34(1): 133–144.

The alleged wide-cloaked rhinoceros has the appearance of the armour-plated *Rhinoceros unicornis* endowed with two nasal horns. It was observed in Ethiopia first by James Bruce in 1772 and again by William Cornwallis Harris in 1842. A mounted specimen of this description was preserved in the Bavarian State Collection of Zoology in Munich from 1802 until 1944 when it was destroyed. This is the type-specimen of *Rhinoceros cucullatus* proposed by Johann Andreas Wagner in 1835. A partial lower jaw taken from the hide is still available, and is identified as one of a juvenile *Diceros bicornis*. As no animal of this description has been seen again in Africa, it is discussed why Bruce and Harris were led astray in their observations and recollections. There is compelling evidence that the specimen was shaped like an Indian Rhinoceros by a taxidermist around 1780 following available representations in the literature. The name *Rhinoceros cucullatus* has no status in nomenclature.

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Introduction

It would be difficult nowadays to find support for the proposition that the only species of rhinoceros known in northern Ethiopia is armour-plated and endowed with two nasal horns – that is, showing the external appearance of the Indian rhinoceros (*Rhinoceros unicornis* Linnaeus, 1758) with an additional secondary horn. This reluctance is entirely justified: no rhinoceros of this description is known to exist either currently or in historical times in this part of Africa, or even in the entire continent, or even in the world. Yet there are two eye-witness reports by reliable travellers with zoological expertise, which claim the occurrence of a rhinoceros of this description. Furthermore, these observations are complemented by a museum specimen showing these exact characteristics. And finally, the animal was named by capable taxonomists, not just once, but even twice in the course of the nineteenth century. It is certainly useful to look again at the evidence to discover where history went wrong. For the sake of simplicity, we will refer to the species as the 'wide-cloaked rhinoceros' (German: Breitkragiges Nashorn) after its most descriptive scientific name, *Rhinoceros cucullatus*.

The wide-cloaked rhinoceros was allegedly seen twice in Africa, both times in the north-western part of Ethiopia. The first witness was James Bruce, the Scottish explorer, who hunted the rhinoceros in 1772 and returned home with one of its horns. The second witness was William Cornwallis Harris, a

British officer, who participated in a rhino hunt in 1842, after having killed numerous rhinos in South Africa during a previous trip. He was therefore eminently well acquainted with both species of African rhinoceros, the black *Diceros bicornis* (Linnaeus, 1758) and the white rhinoceros *Ceratotherium simum* (Burchell, 1822). The only known specimen of *Rhinoceros cucullatus* was preserved in the Zoologische Staatssammlung (Bavarian State Collection of Zoology) in Munich until it was destroyed in 1944. At present, only the damaged lower jaw of the animal remains.

In this paper, we will examine the available evidence relating to the hunting exploits of Bruce and Cornwallis Harris, as well as to the history of the mounted rhinoceros in Munich. Finally, we will discuss the possibility that there is some truth in the statements of these travellers, or rather, we will attempt to explain how they could be so far off the mark in their observations of wild game.

The black rhinoceros once occurred in most parts of Ethiopia and Eritrea, and in the adjoining regions of eastern Sudan (Yalden 1986). It suffered a major decline in the late twentieth century, to the point that it is believed that there are none left in this part of their former range, maybe with the exception of a small number in the far south of the country (Emslie & Brooks 1999). It is generally accepted that the black rhinoceros of Ethiopia differs from specimens in East Africa, but the relationship with populations in Somalia, Sudan and West Africa is not yet satisfactorily established. In the most recent taxonomic revision, Groves (1967) referred the Ethiopian rhinoceros to the subspecies *Diceros bicornis brucii* (Lesson, 1842).

The evidence

Bruce

James Bruce (1730–1794) travelled in Ethiopia from June 1768 to November 1772, from Mitsiwa on the Tigrean coast inland as far as Gondar and Lake Tana, and returning along the Nile in Sudan back to Egypt (Reid 1968, Hepper 1980, Bredin 2001). After his protracted stay at Gondar with excursions in the area to look for the source of the Nile, he left the town on 26 December 1771 going westwards towards Ras el Feel. He soon reached the house of Confu, the ruler's son, located at Tcherkin (Cherkin), about 60 miles north-west of Gondar. This part of the country was replete with wildlife and Bruce hunted elephants, rhinoceros and buffalo (Bruce 1790a, IV: 296 ff.). On 7 January 1772, his party killed a rhinoceros, first wounding it with javelins and finally shooting it with a gun: "After having dispatched him, I was curious to see what wound the shot had given, which had operated so violently upon so huge an animal; and I doubted not it was in the brain. But it had struck him nowhere but upon the point of the foremost horn, of which it has carried off above an inch; and this occasioned a concussion that had stunned him for a minute, till the bleeding had recovered him. I preserved the horn from curiosity, and have it now by me. I saw evidently the ball had touched no other part of the beast" (Bruce 1790a, IV: 305–306).

Bruce provided notes on the natural history of his journeys in the final volume of the first edition of this 'Travels' published in 1790. He discusses the rhinoceros in a long chapter (Bruce 1790b, V: 85–107), in which he elaborates on traditional topics like the relationship with the biblical unicorn and the roughness of the tongue. He stated that the animal shot at Tcherkin was 13 feet long (396 cm), 7 feet high (213 cm), with horns measuring 14 and just under 13 inches (35.5 and 33 cm) respectively (Bruce 1790b, V: 104–105). He endorsed the view, then gaining acceptance, that there were two species on rhinoceros, one single-horned in Asia, the other double-horned in Africa (Rookmaaker 2005). Bruce's text is accompanied by a plate entitled "Rhinoceros of Africa" ("London. Publish'^{d} Dec^{r} 1st 1789 by C. Robinson & Co.") (Fig. 1). He assures his readers that it showed the actual specimen killed near Tscherkin, and stresses that "this is the first drawing of the rhinoceros with a double horn that has ever yet been presented to the public" and "it is designed from the life, and is an African", of which "the principal difference is in the horn" (Bruce 1790b, V: 86, 87). The artist responsible for this depiction is unknown, as Luigi Balugani (1737–1771), the skilled draughtsman who accompanied Bruce on his travels, had died in Gondar in February 1771 (Hulton et al. 1991).

There is an inexplicable discrepancy between Bruce's plate of the rhinoceros and his text about the species. The plate is easily recognized as a copy from Buffon's 'Histoire Naturelle' (1764, XI: plate 7), and hence as a depiction of Clara, the famous Indian rhinoceros which toured Europe between 1741 and 1758 (Rookmaaker 1973, Clarke 1986, Faust 2003). Bruce, or his publishers, merely added a second or posterior horn to make the animal double-horned (Rookmaaker 1983b). It would almost seem that Bruce had another drawing of a rhinoceros in front of him when he wrote his text about the animal, stressing the fact that it had two horns and that it was the first one of the species painted after life. He would have known that his claims could not withstand even the most casual scrutiny. He even mentions the plate of "*Rhinoceros bicornis*" published by Anders Sparrman (1778) twelve years before his book appeared, commenting that "if such an animal

does really exist, it is undoubtedly a new species; it has not the armour or plated skin, seen in every rhinoceros till this time" (Bruce 1790b, V: 106). There is only one conclusion. Bruce was convinced that the rhinos observed during his travels in Ethiopia had the same armour-plated appearance as *Rhinoceros unicornis*. That gave him license to use Buffon's plate and add an additional horn to the depiction, because he could not have done a better job himself in showing the characteristics of the animals hunted in Ethiopia.

Fig. 1. "Rhinoceros of Africa" illustrating the account by James Bruce (1790b, V, facing p. 85). It was supposed to represent the rhinoceros killed near Tscherkin in Ethiopia, but in fact shows a copy of the plate of the Indian rhinoceros first published by Buffon (1764) with the addition of a posterior horn.

Cornwallis Harris

William Cornwallis Harris (1807–1848) served in the Second Engineering Corps of the East India Company, stationed in India from 1825. During a period of leave, he travelled in the South African interior from 31 May 1836 to late 1837, where he indulged in hunting on a grand scale. He shot, examined and made drawings of two species of rhinoceros, which he called *Rhinoceros simus* and *Rhinoceros africanus*. Harris (1839) gave details of 12 individual rhinos shot during his stay in the North-West Province from October to December 1836, of which 4 can be identified as a black rhino and 5 as a white rhino (Rookmaaker 2008: 46–56, table 1).

From 1841 to 1843, Harris led a British diplomatic mission from Bombay to Sahle Selassie, the ruler of Shewa in central Ethiopia, to negotiate a commercial treaty (Keynes 2007). He gave an extensive account of his travels and observations in 'The Highlands of Aethiopia' (Harris 1844). Harris (1844, III: 256) was on the banks of Muttahara Lake (now Lake Basaka in the southern part of Awash National Park) in 1842, when he heard rumours about a rhinoceros: "The chief of Inkoftoo had seen a rhinoceros in the morning among the dense thicket of hook-thorns covering the declivity of a hill on the way." However, the men made so much noise that the animal ran "towards the Hawash". Unable to follow the rhino's tracks at night, Harris pursued it the next morning, but his Ethiopian counterpart soon called off the chase: "The rhinoceros was said to abound in the Karaiyo neighbourhood; but Habti Mariam would consent to no further sojourn on this dangerous border with so limited an escort, and at noon retraced his steps to the village of Inkoftoo [the principal Karaiyo kraal in the district of Kadécha Dima]" (Harris 1844, III: 258).

There is nothing particularly significant about this account of a rhino hunt in the book by Harris. However, he left a more personal account of the proceedings in the official report written on 17 April 1842 (Harris 1842). The encounter with the rhinoceros is found in two sections of this unpublished manuscript, which may be reproduced here verbatim as access to this material is limited. Harris wrote that a rhinoceros was sighted and subsequently wounded. Night fell too early and the animal was able to escape. It will be noticed that Harris seems to distance himself from the adventures, and nowhere does he imply personal involvement.

"We are still some distance from the spot in which Habti Mariam had resolved to encamp near the borders of Mutahara lake, whose placid surface, not less than two miles across, extends almost to the base of Fantali. The chief of Inkoftoo, having seen a rhinoceros in the morning among a dense thicket of hook-thorns covering the declivity of a hill on our way, we were invited to beat up his quarter, but although one of the Governor's braves, elevating his sheep-skin mantle upon the point of his lance to ensure attention, charged the assembled multitude in the King's name to abstain from clamor, and from interference with the arrangements made for the attack, the clattering hoofs of the advancing cavalcade disturbed the quarry, and notwithstanding that it was severely wounded and subsequently spread, the near approach of night favoured its escape towards the Hawash. It was difficult to determine whether the fear of the Aroosi or the wild beasts now predominated in the minds of the Amhara escort. In spite of heavy fall of rain, large watch fires were

kindled in various parts of the lone bivouac, and not an eye was closed until the day had dawned" (Harris 1842, chapter 42).

In a subsequent section of the letter, Harris vents his disappointment that the Ethiopian leader of the expedition refused to let him pursue this rhinoceros, or allow a party to travel to nearby areas where the animals would abound.

"The refusal of the Amhara to advance further was the more provoking, as the wounded rhinoceros, now nearly exhausted with loss of blood, 'appeared to belong to an entirely new species' *[our emphasis], differing altogether from those found in the Southern portions of Africa; and although armed with two horns, was encased in massive folds, if not in plate armour, after the manner of a perfectly unique specimen in the Munich museum, that has long puzzled the scientific world, and regarding whose habitat no record is preserved. Notwithstanding that the animals were said to abound at no great distance in the neighbourhoods, Habti Mariam would consent to no longer tarry in this dangerous border with so small an escort, and we therefore retraced our steps at noon to the village of Inkoftoo"* (Harris 1842, chapter 44).

When Harris speaks of "an entirely new species" of rhinoceros in comparison with those found in South Africa, this should be authoritative. Few men of his time were better acquainted with the black and white rhinos found in the southern part of the continent from personal experience. Strange, then, that Harris appeared uncertain about the observation, otherwise he would not have used "appeared to belong" in his description, nor would he have left out this detail from the published account. His wording here is frustratingly and unnecessarily ambiguous. There is certainly some possibility to speculate that Harris did not participate in this particular hunt (unlikely though that may be) or that he never had a proper glimpse of the animal.

The mounted rhinoceros from Mannheim

When Johann Friedrich Blumenbach (1752–1840) edited the first German edition of Bruce's 'Travels' translated by Johann Jacob Volkmann (1732–1803), he suggested that the plate of the rhinoceros supplied by Bruce could not have been drawn from nature. He therefore added a second plate, "eine ächte Zeichnung des zweyhörnichten Rhinoceros" (a true delineation of the double-horned rhinoceros), drawn after a mounted specimen in the 'Naturaliencabinet' in Mannheim (Blumenbach 1791: 284). He had examined the specimen a few years earlier, in the 1780s, when he noted that it was a female, measuring in the dry state (presumably using Prussian measures, one foot equalling 31.4 cm) 3 feet 8 inch (115 cm) in height and 7 feet 8 inch (240 cm) in length, while the two horns were 16 (41.9 cm) and 5 inch (13.1 cm) respectively. Blumenbach's additional plate, with caption "Rhinoceros. Aus dem Mannheimischen Museum", shows an armour-plated rhinoceros facing left, with two good-sized horns; the artist is unidentified (Blumenbach 1791, pl. 45; see Fig. 2).

The museum in Mannheim was established in the large baroque palace by Elector Carl Theodor of the Palatinate (1743–1799). Particularly interested in the sciences, he founded the Kurpfälzische Akademie der Wissenschaften (Academy of Sciences of the Electoral Palatinate) in 1763. The Academy soon encompassed a Physics Collection, an Observatory and Botanical Gardens, besides a Natural History Collection. Under the directorship of Cosimo Alessandro Collini (1727–1806), the Naturalienkabinet in 1765 occupied two rooms in the east wing of the castle, soon supplemented by a third room for vertebrates and a fourth room containing the entomological collection. In an early catalogue, Collini (1767) mentioned a few quadrupeds shown in the third room, including single and double horns of a rhinoceros, but no large mounted specimen. Carl Theodor by succession gained the throne of Bavaria and relocated from Mannheim to Munich in 1777. His library and collections followed, but the museum of natural history was transferred as late as 1802. Five years later, together with three other collections, it formed the foundation of the new Zoologische Staatssammlung, housed in the Wilhelminum on the Neuhaußer Straße 51 in the centre of Munich (Kraft 1992).

The mounted rhinoceros was noticed in print by Johann Andreas Wagner (1797–1861), the adjunct conservator of the Museum from 1832. While editing revisions and additions of the encyclopedic work on mammals by Johann Christian Daniel von Schreber (1738–1810), he provided descriptions of all known species of rhinoceros. His summary was reasonably conservative for his period, listing just two Asian species *(Rhinoceros indicus* and *R. javanus)*, one African species *(R. africanus)*, as well as one new species and five uncertain taxa. The new species, solely based on the skin transferred from Mannheim, was called *Rhinoceros cucullatus*, and typified with the following short diagnosis: "Rhinoceros cornibus duobus, capite sensim elevato, plicia cutia profundis, clypeo scapulari indiviso supra latiori, epidermide verrucis parvis obsita" (Wagner 1835: 317).

The specimen remained on display in Munich for well over a century, but it was rarely studied by taxonomists. It was examined in 1908 by Ludwig Zukowsky (1888–1965), who gave a full description of his findings in his major review of the genus *Diceros* (Zukowsky 1965: 133). He illustrated his account with a photograph of a specimen which

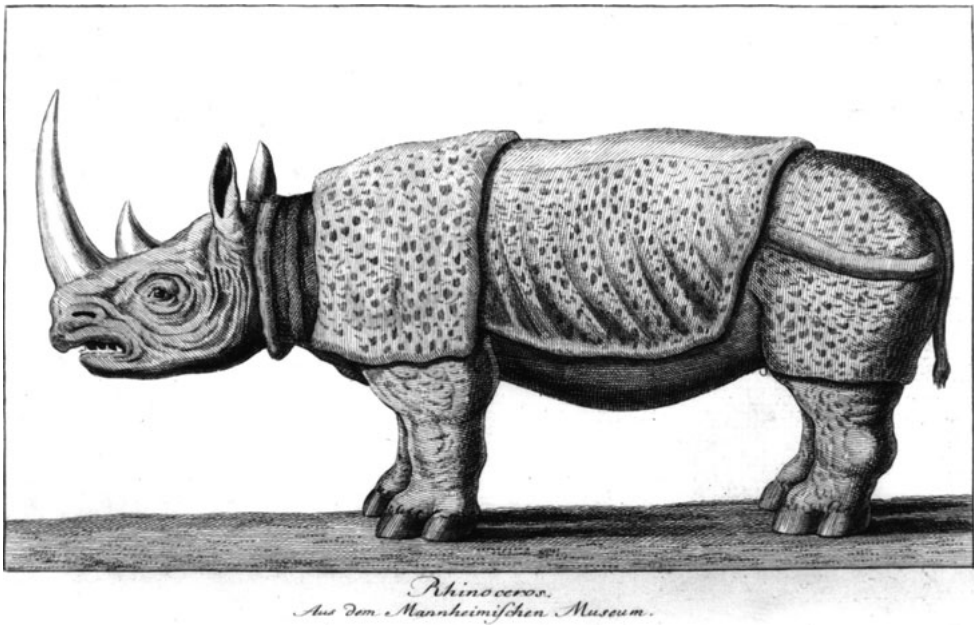

Fig. 2. "Rhinoceros. Aus dem Mannheimischen Museum." Engraving published by Johann Friedrich Blumenbach in a German edition of Bruce's 'Travels' (Blumenbach 1791, pl. 45). It shows the mounted specimen in Carl Theodor's Museum in Mannheim before it was transferred to Munich.

looked very similar, supplied by Erna Mohr (1894–1968) in 1959, and supposedly taken in the Museum of Natural History of Vienna (Fig. 5). Recent correspondence with Dr Barbara Herzig, Curator of the Mammal Section of the Vienna Museum has established beyond doubt that there never was such a specimen there. A comparison of Zukowsky's illustration with the type of *Rhinoceros cucullatus* depicted in two photographs taken in the exhibition of the Munich museum gives clear evidence, that the photograph reproduced by Zukowsky is in fact one of the few taken of the rhinoceros in Munich. The two mentioned photographs were taken in the so-called Afrikasaal (Africa Exhibition Room) of the museum in February 1944, when precautions were taken to evacuate the collection due to the increasing aerial attacks of the allied troops (Figs 6–7). Shortly after these photos were taken, the building was hit by a bomb during an air raid on 24 April 1944 and all mounted mammals were completely destroyed (Kraft & Huber 1992).

The type of *Rhinoceros cucullatus* is therefore no longer available. However, it appears that at some stage part of the lower jaw was removed from the skin. There is no evidence when this action was taken. Neither Wagner (1835) nor Zukowsky (1965) during his 1909 examination described this bone. When Zukowsky revisited the question after the Second World War, he received a reply from the curator, Theodor Haltenorth (1910–1981) dated 1959 in Munich, stating that only the lower jaw had survived. This lower jaw is still in the museum in Munich, catalogued as number AM 417a, and identified as one of a juvenile *Diceros bicornis* both by Zukowsky (1965) and by the staff of the museum (Fig. 8). The label with the jaw was probably written by Haltenorth at the time of Zukowsky's enquiry, and states that the specimen was once part of the type of *Rhinoceros cucullatus*. While the left side of the jaw is complete, only the front part of the right side is present, from the symphysis to the alveolus of the second premolar. The first premolar is present on both sides, P_2 is missing on both sides and P_3 is missing at the right. The third molar is not yet erupted. The greatest length of the mandible is 472 mm, the height of the ramus on M_1 is 70.5 mm.

Besides the three photographs of the mounted specimen mentioned above, there exist to our knowledge two published plates and one unpublished drawing of the animal (Figs 2–4). The first plate is the one commissioned by Blumenbach around 1790 and published in monochrome in the German edition of Bruce's 'Travels' (Blumenbach 1791, pl. 45; Fig. 2). The second plate, in colour, accompanied Wagner's original description of *Rhinoceros cucullatus*, showing the animal facing to the right (Wagner 1835, vol. 6, pl.

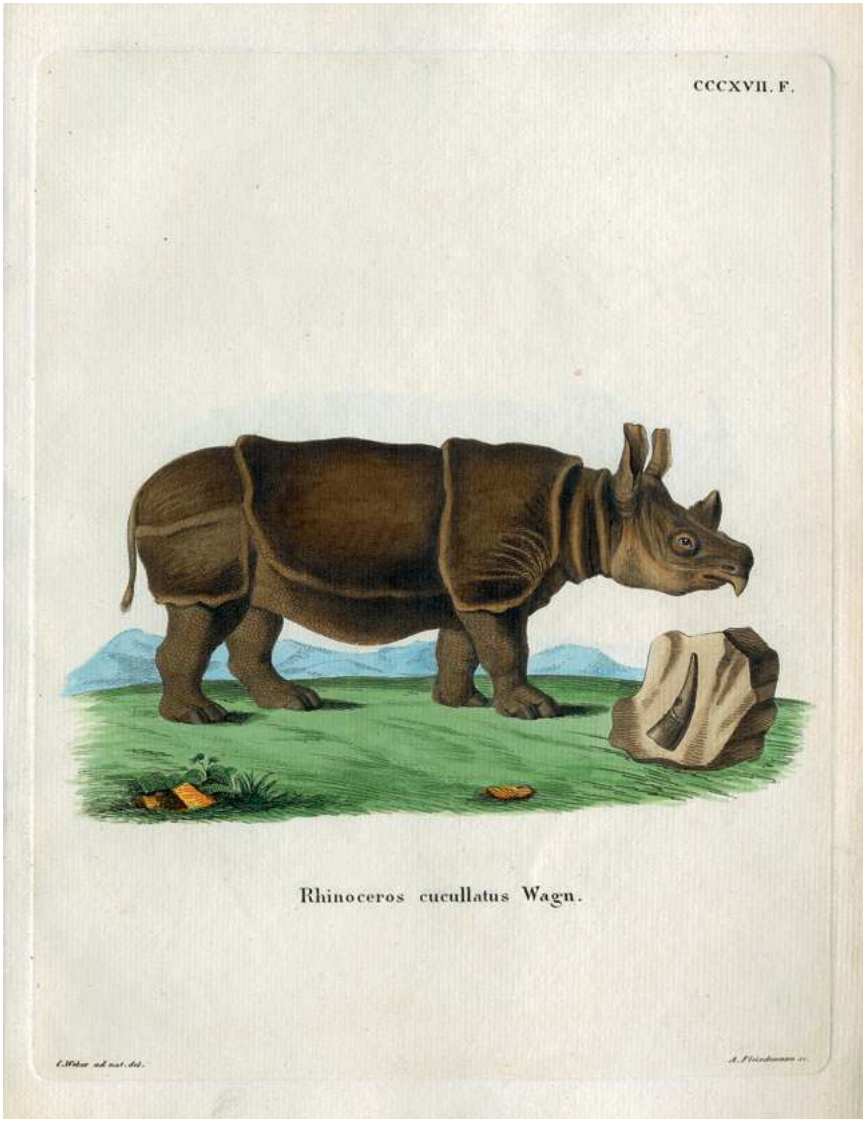

Fig. 3. "Rhinoceros cucullatus Wagn." A coloured plate of the mounted specimen in the museum in Munich to accompany the first description of this species by Johann Andreas Wagner in the new edition of Schreber's 'Säugthiere' (Wagner 1835, vol. 6, pl. CCCXVII.F). Note the horn on the rock near the animal's front legs. The plate was drawn by C. Weber and engraved by A. Fleischmann.

CCCXVII.F; Fig. 3). Only the posterior horn is shown in situ; the anterior horn is depicted on a rock near the animal's front legs, because Wagner was not sure if it actually belonged to the rhinoceros. The drawing, labelled "*Rhinoceros cucullatus* Wagn.", is signed "C. Weber ad nat. delin." and "A. Fleischmann sc." representing the names of the unidentified draughtsman and engraver respectively. Wagner (1850) later learned that his plate was in fact preceded by the one accompanying the notes in Blumenbach (1791).

The watercolour (Fig. 4) was part of a series of mammal drawings prepared by Charles Hamilton Smith (1776–1859). From about 1810, Smith set out to draw three series of watercolours depicting costumes, topography and natural history. To achieve a representative set of depictions of all living vertebrates, Smith visited 34 institutions, including "the Leverian and British museums, Bullock's, the

Missionaries, the India Company's, the Jardin du Roi, at Paris, the Museums of Munich, Dresden, and Berlin; those of Bonn, and of my learned friend Mr. [Coenraad Jacob] Temminck; also of Philadelphia, New York and Baltimore" (Smith 1830: 285). While hundreds of drawings of fishes and some mammals and birds are known to exist, the majority of the mammal drawings are unknown (Alexander 1986). Recently a set of drawings of pachyderms have come on the market, from the sale of the estate of Quentin Keynes, including 18 types of rhinoceros. Among the latter, there is a watercolour (48 × 55 cm) showing a rhinoceros facing right, with both horns shown on the nose. It is inscribed with the artist's initials "CHS" and the following text: Hamilton: "Pachydermata. Brought from Frankfort, where the skin had been above a century before it was set up. In 1770 it was brought at Manheim & set up & in 1802 carried to Munich. The horns are let into the skin. It is 4 f^t high 8 f^t long. Rhinoceros / R. bicornis?" (Fig. 4). It is quite possible that Smith drew the animal during a visit to Munich (in the 1820s?), where the relevant information was provided to him.

Fig. 4. The mounted specimen of *Rhinoceros cucullatus* in a watercolour prepared by Charles Hamilton Smith between 1800 and 1810 in Munich. The plate is one of a series of all species of rhinoceros known at the time, recently sold by Arader Gallery in New York.

While the mounted hide of the rhinoceros was noticed in Mannheim at the end of the eighteenth century, its provenance remains uncertain. A number of possibilities were advanced in contemporary publications. In his account of the rhinoceros seen in the menagerie of Versailles, the German zoologist Heinrich Sander proposed that it was a captive specimen drowned in the Rhine near Mannheim around 1770: "Vor einigen Jahren sollte ein Rhinoceros, das 2 Hörner hatte, und lange in Teutschland herum-geführt worden war, bei Mannheim auf dem Rhein fahren, das Boot schlug um, und das Thier ersoff im Wasser. Man hat es aufgefischt, und für das sehenswürdige Kabinet des Churfürsten ausgestopft [A few years

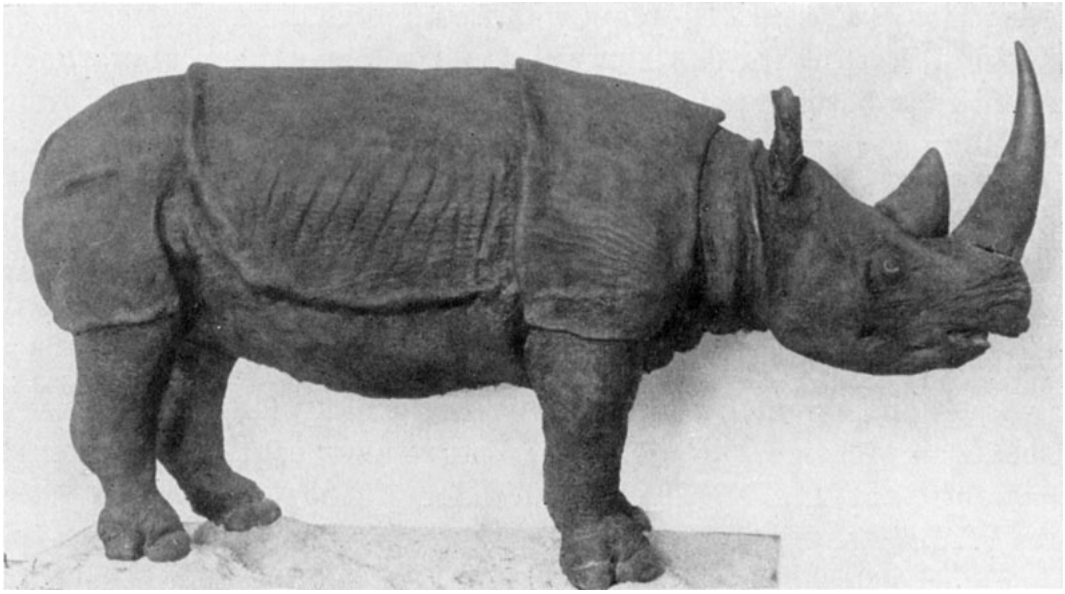

Fig. 5. Photograph of a mounted rhinoceros published by Zukowsky (1965: 135), supposedly taken by Dr Erna Mohr in the Zoological Museum in Vienna. As there has never been a specimen of this description in Vienna, this must in fact be a photograph of the type-specimen of *Rhinoceros cucullatus* in Munich (compare with Fig. 6).

Fig. 6. The skeletons and mounted animals in the "Afrikasaal" in the Zoologische Staatssammlung in Munich, taken just before the intended evacuation in 1944. The specimen of *Rhinoceros cucullatus* is seen in the back of the room on the right. Photo: Stadtarchiv München.

ago, a double-horned rhinoceros, which had been shown for many years in German cities, was taken on a boat on the Rhine near Mannheim. The boat capsized and the animal drowned. The body was recovered and mounted for the important cabinet of the Elector]" (Sander 1779: 8). The account of the accession of the rhinoceros provided by Hamilton Smith on his drawing (quoted above) differs slightly, stating that the animal had been in Frankfurt for about a century before it came to Mannheim in 1770.

Blumenbach (1791) is strangely silent about the origin of the mounted skin in Mannheim. When Wagner (1835: 318) became interested in the specimen, he verified that there were no written records,

Fig. 7. A second perspective of the Africa Collection in Munich in 1944, with a partially obscured view of *Rhinoceros cucullatus*. Photo: Zoologische Staatssammlung München.

but he was told that the rhinoceros was donated to Carl Theodor in Mannheim by catholic missionaries. This kept the origin uncertain, because the missionaries worked both in Africa and in Asia. However, Wagner (1835: 320) realised that the specimen in Munich was similar to the rhinoceros described by Bruce, hence it had a proposed origin in Ethiopia. He was strengthened in his supposition when Johannes Rudolf Roth (1815–1858) told him about observations of the same species of rhinoceros during his travels at Schoa (Shäwa, Shoa), i.e. the region around the current Addis Ababa in Ethiopia (Schubert 1860: 288).

Discussion

It would be quite possible on the basis of two eye-witness reports and a museum specimen to advance a convincing argument that until at least the middle of the nineteenth century there lived a species of rhinoceros in north-western Ethiopia different from the well-known black rhino *(Diceros bicornis)*. Even on part of this evidence, Blainville (1817) was prepared to accept the "Rhinocéros de Bruce", Lesson (1842) to name *Rhinoceros brucii* and Wagner (1835) to describe *Rhinoceros cucullatus* (cf. Rookmaaker 1983b). The animal would have been armour-plated and endowed with two nasal horns, the posterior of which was compressed. However, as no rhinoceros resembling this description has been seen in the region for close to two centuries, the argument is no longer acceptable. The question to answer, therefore, is not what Bruce and Harris observed in the Ethiopian bush, rather why these experienced travellers were themselves convinced of the truth of their observations.

In the middle of the eighteenth century, the Indian rhinoceros *(Rhinoceros unicornis)* was well-known from living animals imported into Europe and from multiple reports of travellers. It was still an open question if there was more than one species of rhinoceros, and only in the 1780s a consensus began to appear that there were in fact two species, one single-horned and Asian, the other double-horned and African (Rookmaaker 2005). The educated public, however, was best acquainted with the single-horned rhinoceros from illustrations in

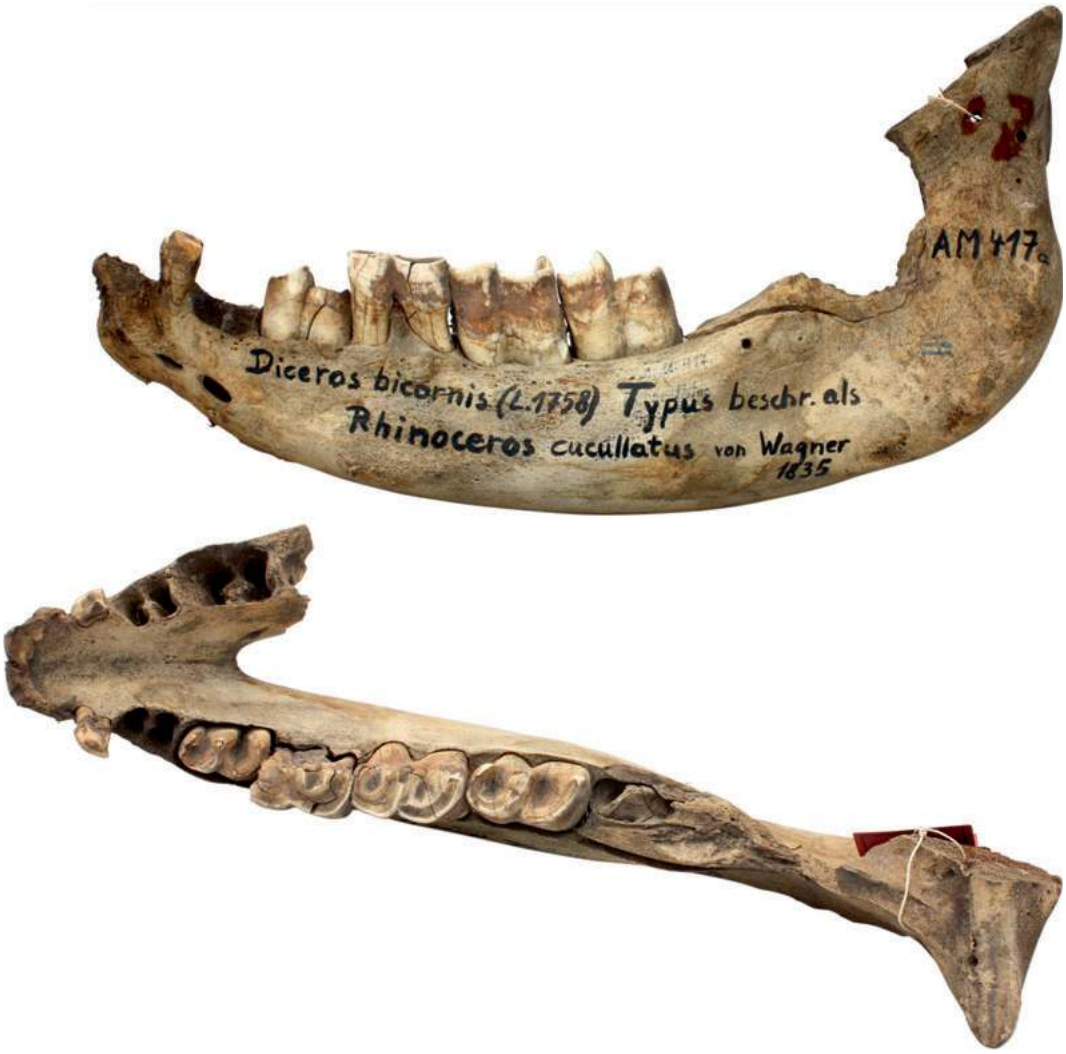

Fig. 8. The only remains of the type of *Rhinoceros cucullatus*, being part of the lower jaw removed from the mounted specimen some time before 1944.

scientific and popular books, while the evidence on the double-horned rhinoceros was not yet generally available. When Bruce heard about the existence of a rhinoceros in Ethiopia during his travels in 1770, he would naturally have expected to see an animal which looked like *Rhinoceros unicornis*. This led him astray in his recollections. It is quite likely that he did not actually take much pains to examine the rhinoceros which was killed by his party, beyond noticing the fact that there were two horns on the head. He did not make any sketches, and the animal might have been quickly cut up by the hunters. When he came to write up his adventures, at least ten years later, he could hardly admit that he did not particularly look for the characteristics found later by travellers like Sparrman in South Africa. His account of the rhinoceros, albeit 22 pages long, included very little detail of the animals seen in the wild, merely addressing the usual academic questions of the period. The plate which accompanied Bruce's text was not prepared after a specimen in Africa, rather it was a representation of a single-horned rhinoceros seen in Paris in 1749, with the silent addition of a posterior horn. He obviously changed the evidence, but never revisited the matter.

If Cornwallis Harris had been able to examine a

rhinoceros shot in Ethiopia during his travels in 1842, he would not have hesitated to say that it was the same as the black rhinoceros which he had seen in South Africa. If Harris would even just had a glimpse of a rhinoceros running away in the bush, he would have been able to make a correct identification. As he was speculating about the identity of the rhinoceros pursued in Ethiopia, it is more than likely that he never actually saw one of them. He would have read the natural history section of Bruce's 'Travels' before he arrived on the Ethiopian coast, from which he quite correctly concluded that the rhinoceros of that part of Africa differed from those which he had observed in the south. Hence his annoyance that his party failed to shoot a rhinoceros, because he would have been able to make drawings and add a new type of rhinoceros to his list of trophies. Harris was led astray by the account published by Bruce.

The history of the mounted specimen in the Museum in Munich was lost in time, as is the case so often when museums preserve animals donated in an age when aesthetic acclaim and comprehensiveness were more important than the actual data attached to a single item. There is no doubt that the specimen was part of the collection transferred in 1802 from the electoral museum in Mannheim to the new natural history museum in Munich. The account by Sander that the rhinoceros had previously toured Germany before drowning around 1770 in the Rhine remains unverified, because despite much effort no other evidence of a living double-horned rhinoceros fitting this description has been uncovered (Rookmaaker & Reynolds 1985: 140, Rookmaaker 1998: 194). The proposal by Hamilton Smith that the skin had long been in Europe before it was finally mounted in the late 18th century is equally impossible to verify (Rookmaaker 1999). It may be best to accept Wagner's assertion that the animal had been given to Carl Theodor in the last quarter of the 18th century by missionaries. As it is likely that the specimen was mounted prior to the appearance of Bruce's 'Travels' in 1790, there must be a different reason why the skin was shaped to represent a *Rhinoceros unicornis* despite having two horns. There is compelling evidence that the skin was mounted by a taxidermist, who without knowledge of the animal when alive, relied on the best available representations of the rhinoceros in the literature, all of which showed the armour-plated (but single-horned) Indian rhinoceros.

The lower jaw which was once part of the mounted specimen of *Rhinoceros cucullatus* can be positively identified as that of a juvenile *Diceros bicornis*. Some authors have treated *Rhinoceros cucullatus* as a valid taxon synonymous with a variety of other species of living rhinoceroses (Rookmaaker 1983a: 55). In view of the fact that the type-specimen was an artefact, *Rhinoceros cucullatus* has no status in nomenclature.

Acknowledgements

We thank Professor Simon Keynes of Trinity College, Cambridge, for drawing attention to the "entirely new species of rhinoceros" mentioned in an unpublished report of 1842 by Cornwallis Harris. Dr Barbara Herzig and Dr Christa Riedl-Dorn helped with information on the alleged specimen in the Natural History Museum in Vienna. The original photographs of Figures 1–5 were supplied by the Rhino Resource Center, on whose website most references cited here can be found in full-text (www.rhinoresourcecenter.com). The work on this paper is part of the ongoing research of the Rhino Resource Center, sponsored by SOS Rhino, Rhino Carhire, Save the Rhino International and the International Rhino Foundation (IRF).

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