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The rhinoceros (*fl.* 1770–1793) of King Louis XV and its horns

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ABSTRACT: While receiving remarkable animals as presents was a common practice among European monarchs, the rhinoceros of Louis XV (*Rhinoceros unicornis*) became one of the most famous. The live male Indian rhinoceros was a gift to the King from Jean-Baptiste Chevalier, French governor of Chandannagar in West Bengal. It left Calcutta on 22 December 1769, and arrived in the port of Lorient, Brittany, six months later on 11 June 1770. From there it was transported to the royal menagerie in Versailles, which had been built in response to increasing interest in zoology and Louis XIV's passion for the exotic, in 1664. When the rhinoceros died in 1793, having been in captivity in France for more than 20 years, its skeleton and stuffed hide were preserved and have been held since then in the Muséum national d'Histoire naturelle, Paris. Here it remains on exhibition as an almost three-hundred year old relic of *R. unicornis*, an invaluable source for museum studies and the history of taxidermy. Why the original horn of this rhinoceros was replaced by a much longer one, and why, in turn, this was replaced by a short one is discussed.

KEY WORDS : *Rhinoceros unicornis* – taxidermy – museums – cabinet du Roi – eighteenth century – Muséum national d'Histoire naturelle.

RÉSUMÈ: Lorsque recevoir des animaux remarquables comme cadeaux diplomatiques était une pratique commune entre monarques européens, le rhinocéros de Louis XV (*Rhinoceros unicornis*) est un des célèbres exemples. Ce rhinocéros mâle indien est un cadeau au Roi par Monsieur Chevalier, gouverneur français à Chandernagor dans l'Ouest Bengale. L'animal quitte Calcutta le 22 décembre 1769 et arrive vivant dans le port de Lorient en Bretagne, six mois plus tard le 11 juin 1770. De là, il est transporté à la Ménagerie royale de Versailles, construite en 1664 en réponse à l'intérêt croissant pour la zoologie et la passion du Louis XIV pour l'exotique. Lorsque le rhinocéros meurt en 1793, après plus de 20 ans en captivité en France, sa peau et son squelette sont conservés et exposés depuis lors au Muséum national d'Histoire naturelle à Paris. Ici, il demeure dans l'exposition comme une relique de près de trois cents ans de *R. unicornis*, une source inestimable pour la muséologie et l'histoire de taxidermie. Surtout quand les questions du pourquoi la corne originale de ce rhinocéros fut remplacée par une beaucoup plus longue et pourquoi, à son tour, celle-ci fut remplacée par une plus courte, sont posées et discutées.

MOTS CLEFS : *Rhinoceros unicornis* – taxidermie – muséum – histoire des spécimens – cabinet du Roi – Ddix huitième siècle

INTRODUCTION

The history of taxidermy in the eighteenth century is bound to be incomplete because of the scarcity of published sources about the techniques and methods of preparation of the specimens (Péquignot 1999, 2002, 2003, 2006). However, stuffed specimens preserved in museums provide evidence although this has been fragmented with the passing of time,

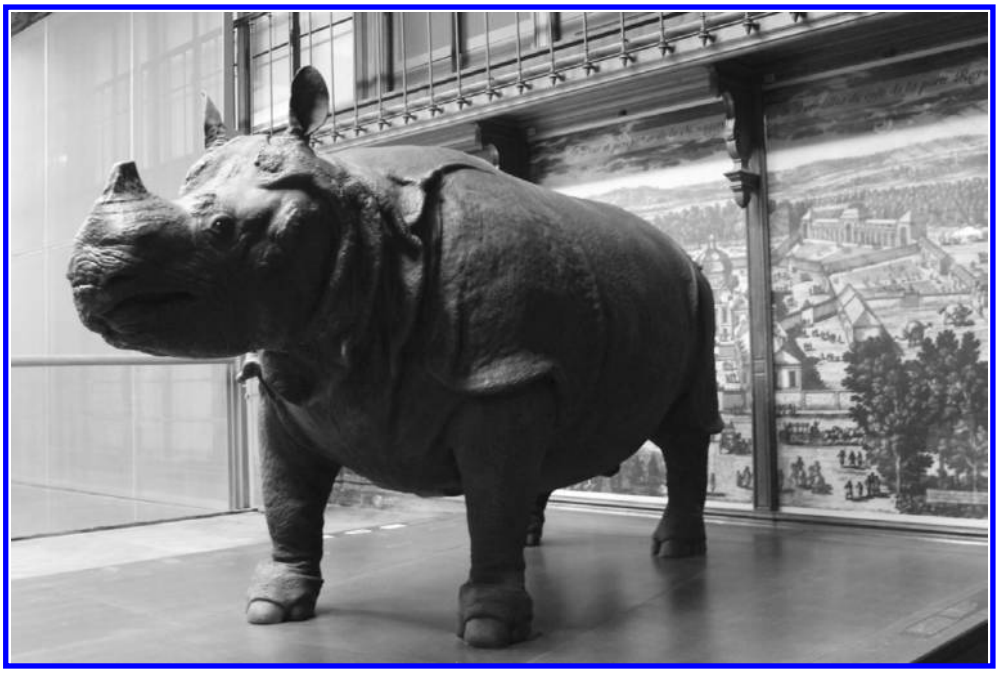

Figure 1. The rhinoceros of Louis XV exhibited in the Grande Galerie de l'Evolution, MNHN, Paris, in 2011. © Amandine Péquignot.

changes in ownership, and the difficulties of preservation. In consequence, few stuffed specimens from the 1700s have survived into the twenty first century (Farber 1977; Péquignot 2002; Schulze-Hagen *et al.* 2003; Mlíkovský 2010).

In France, one of the oldest natural history collections was the Cabinet du Roy, which was founded in 1729 (Péquignot 2002). Following the French Revolution, the Cabinet was incorporated, by the decree of Joseph Lakanal (1762–1845), on 10 June 1793 into the Muséum d'Histoire naturelle, Paris (hereafter MNHN). An inventory of the Cabinet du Roy in 1809, made by Etienne Geoffroy Saint-Hilaire (1772–1844), Professor of Zoology at the MNHN, listed 460 birds and 75 mammals including the rhinoceros of Louis XV or "le rhinocéros de Versailles" (*Rhinoceros unicornis*) (Cap 1854; Péquignot 2002, 2003). This stuffed rhinoceros is one of the few eighteenth-century specimens still preserved in the MNHN. It was exhibited in the Gallerie de Zoologie (inaugurated in 1889), renamed Grande Galerie de l'Evolution (GGE) in 1994 (Figure 1).

The circumstance which aroused my interest in a more detailed study of the history of Louis XV's rhinoceros (henceforth rhino) was a photograph, taken in 1892, of the Pyramide des Pachydermes in the Galerie de Zoologie, in which the rhino appeared in the foreground (Figure 2). Comparing the rhino in this photograph with the present one in the GGE, a disparity was clearly noticeable: the specimen of 1892 had an extremely long horn, about 80 cm on the curve (Neuville 1927), and strongly curved backwards, whereas it now has a very small horn (Figure 3). The long horn was still present on the head of the rhino in the 1970s when it came to the attention of scientists who studied the specific characters of rhino horns and who pointed out that the "specimen which lived in the old Versailles Menagerie, had a horn measuring 80 cm on the curve, by far exceeding the known record for

Figure 2. Pyramide des Pachydermes, Galerie de Zoologie, MNHN, 1892. © Bibliothèque centrale MNHN.

Figure 3. Head of Louis XV's rhinoceros, 2011. © Amandine Péquignot.

Rhinoceros unicornis" (Groves 1972: 241). The answer to the change of horn was quickly solved by Professor Michel Tranier, Director of Collections at the MNHN until 2003, who revealed that the horn, about one metre in length, had been saved from looters who

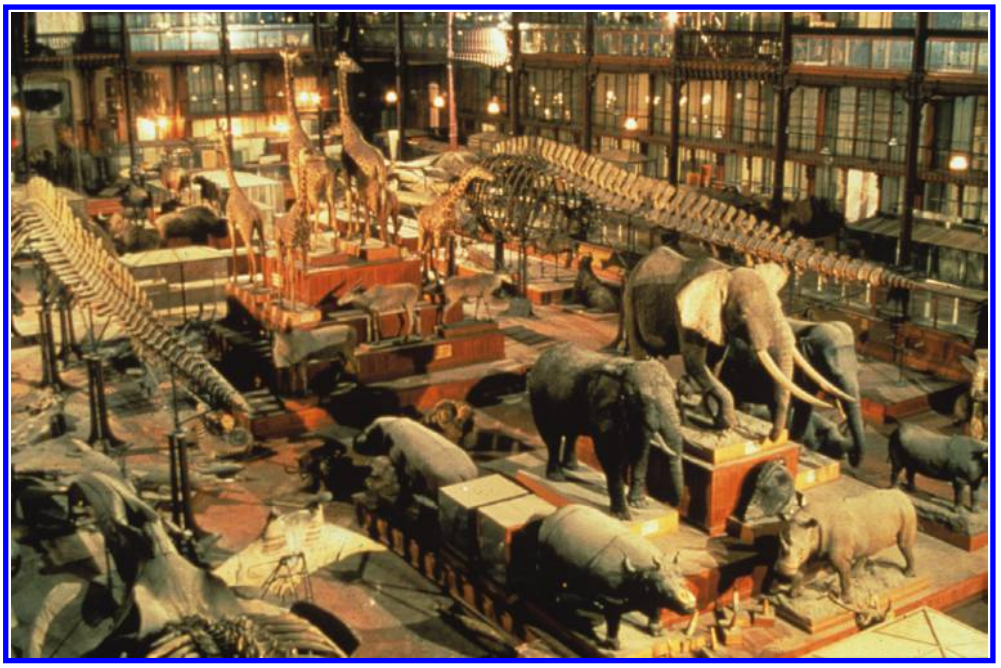

Figure 4. The rhinoceros of Louis XV without its horn; Galerie de Zoologie. © Service audiovisuel / MNHN.

plundered the Gallerie de Zoologie after it had been closed to the public in the 1960s (Figure 4). Preserved in storage at the MNHN and recorded in the collection register under the number CG1991–1438, its frayed aspect, size and square base allowed us to determine that it came from an African white rhino (*Ceratotherium simum*), which confirmed Groves's description of 1972. In 1992, the stuffed rhino, recorded under the number CG1991–1439, was restored and the taxidermist replaced the long African rhino horn with a cast of a truncated Indian one from the collections. The rhinoceros of Louis XV then became a real and confirmed Indian rhino and was exhibited in the historical section of the GGE in 1994.

To answer why and how an African horn could have been put on a famous Indian specimen, it was necessary to unravel the history of the stuffed specimen, and to understand its historical and scientific context.

INDIAN RHINOCEROS IN VERSAILLES

The history of this rhino compares with that of numerous animals collected by naturalists and travellers in various parts of the world during the eighteenth century (Robbins 2002) and then offered as diplomatic gifts to rulers in Europe (Nickel 1991). The transport of the live male rhino from India to Versailles and the subsequent 23 years when it lived in captivity have been described elsewhere (see Rookmaaker 1982, 1983, 1999; Rookmaaker *et al*. 1998). The rhino was a gift from Jean-Baptiste Chevalier (1729–1789), French governor of Chandannagar in West Bengal, to Louis XV. On 22 December 1769 it was put on board the *Duc-de-Praslin*, a ship belonging to the Compagnies françaises des Indes orientales.[1]

After various stopovers at different islands in the Indian Ocean (Rodrigues, Île de France, Île de Bourbon[2]) and Saint Helena (but without stopping at the Cape of Good Hope (*contra* Loisel 1912; Dorst 1952)), the rhino was landed at Lorient on 11 June 1770.[1] It stayed for almost two and a half months there, chained in a cowshed, while a cage was specially built for its transport; this took 72 days of work by cartwrights, 57 by smiths and edge-tool makers, 36 days by locksmiths and 2 days by carpenters, to ensure its solidity. During the trip, the rhino was regularly rubbed down with fish oil to keep its skin moist (Lacroix 1978).

When the rhino finally arrived in Versailles on 11 September 1770, the total cost of its transport and maintenance was 5,388 livres, 10 sous and 10 deniers[3], a tremendous sum for the time, corresponding to 54 months salary for a ship's captain. At the royal menagerie, the rhino lived in a pen specially built for it, approximately 20 metres long and 12 metres wide, and was provided with a drinking trough (Loisel 1912). The rhino quickly became a popular attraction; its monstrousness delighted and appealed to the curiosity of the aristocracy and the crowds of spectators who travelled from all over the country to see it. The rhino was on public display for more than 23 years before it died in 1793.

Mysterious death during the French Revolution

The storming of the Tuileries Palace on 10 August 1792, the second most important date in the French Revolution, effectively brought an end to the French monarchy. On that day, the menagerie in Versailles was destroyed and pillaged by revolutionary hordes because it was a symbol of royal tyranny. Many animals, including "a beautiful dromedary, several small quadrupeds, a large number of birds" were killed, some to be eaten and "the others delivered to the swindler" (Geoffroy Saint-Hilaire 1847; Raynal 1971). A few animals including the rhino survived, but they still had the misfortune to have belonged to the King. At that time, "it was necessary to destroy menageries because the people lacked bread. It was considered shameful to feed animals at great cost when we have around us people who are starving" (Loisel 1912: 159).[4]

On 19 September 1792, Louis-Charles Couturier, the general overseer for Versailles, invited Jacques-Henri Bernardin de Saint-Pierre (1737–1814), renowned author of the Romantic novel *Paul et Virginie* and new Director of the Jardin des Plantes in Paris, to save those animals still alive at Versailles. "The menagerie is going to be destroyed, however some of the animals would be suitable to appear in your magnificent cabinet of natural history, please contact me. . . . I believe that it would be necessary for you to come to Versailles."[5] Courturier finished his letter with a note: "There is a magnificent rhinoceros." However, Bernardin de Saint-Pierre had other priorities during this period. Couturier wrote to him again on 14 December (Loisel 1912: 162):

> Citizen, you know that there is in the Menagerie of Versailles a rhinoceros which becomes superfluous to this country's needs. I will keep it for you with pleasure according to the order of the Minister. I ask you to let me know what will become of it. According to your answer, I will request its sale from the district of Versailles if you do not take it for the Jardin des Plantes Paris; someone has already offered me some money for it, but I would rather it become an object of public instruction in the hands of a philosopher like you.

Finally, Bernardin de Saint-Pierre came to Versailles to see the animals with André Thouin (1747–1824), Head Gardener of the Jardin du Roi, and René

Desfontaines (1750–1833), Professor of Botany. He noted (Bernardin de Saint Pierre 1792: 756):

> . . . five wild animals, rare and unusual
>
> 1. Quagga came from the Cape of Good Hope in 1784,
> 2. Hartebeest sent in 1783 by the Dey of Algiers[6],
> 3. Crowned pigeon of Banda islands[7] arrived in 1787,
> 4. Rhinoceros sent from India in 1771 and,
> 5. Lion arrived from Senegal in September 1788 accompanied by a Braque dog.

Bernardin realized that animals could be more beneficial for science alive rather than stuffed or as skeletons in the Cabinet d'Histoire Naturelle. In January 1793, he wrote a memorandum urging the creation of a menagerie in the Jardin des Plantes (Martin 1836: 755–765), but nothing was discussed in the National Assembly, too much occupied with deliberating on the outcome of the judgment of execution on Louis XVI (who had succeeded Louis XV in 1774).

When an edict banning animal shows in Paris mandated the seizure of all animals, the confiscated ones, for example several dancing bears and trained monkeys, joined the royal refugees at the ill-equipped Jardin. Etienne Geoffroy Saint-Hilaire insisted that some of the animals' former owners be hired as zoo-keepers, and thus the menagerie was founded. Administrative delays meant that more than a year elapsed before, finally, on 26–27 April 1794, the last animals living at Versailles were transported to the Jardin des Plantes (Geoffroy Saint-Hilaire 1847; Dorst 1952; Loisel 1912), but the rhinoceros of Louis XV had already died.

The cause and the date of the rhino's death are ambiguous as several causes and several dates are documented. According to the manuscript report of the dissection[8] "the rhinoceros died from a sabre which penetrated its breast, the morning of 2 vendémiaire de l'An II" (23 September 1793)[9], and it arrived on 4 vendémiaire de l'An II (25 September 1793) at the MNHN for dissection. Another date was given by Loisel (1912) who stated that the rhino died on 13 floréal de l'An II (2 May 1794)[10] from the effects of a gangrenous wound, connected to a fall into its pond. According to other sources, it drowned in the pond in its pen in July 1793 (Lacépède and Cuvier 1801, Lacroix 1978) or in August 1793 (Bernard 1842). Rookmaaker (1983) favoured the cause as stated in the manuscript report of the dissection[8] and suggested that the assertion of drowning by Lacépède and Cuvier (1801) "maybe inaccurate".

The death of the rhino has no direct link with the particular history of its horn, but is another mystery, for which its mounted skeleton exhibited today in the Galerie d'anatomie comparée (MNHN) can provide some clues (Figure 5). On the left side of the rib cage there is a bone fused in the middle (Figure 6), forming a callus at the site of a fracture. This fusion of the bone could only have occurred while the rhino was alive, and supports the description of the fall of the animal into its pond. There is manuscript evidence of 15 visits by a veterinarian, Paul Bouquet, during the months of vendémiaire and brumaire An II (mid-September to mid-November 1793) to attend to the gangrenous injury on the leg of the rhino by using camphorated brandy and basilicon.[11] This tends to support the hypothesis of a fall or the sabre injury mentioned in the manuscript report of the dissection.

The rhino was too massive to be dissected in the Museum. Consequently, the dissection took place outside, under a tent, in front of the doors of the Verniquet Amphitheatre in the Jardin des Plantes. Jean-Claude Mertrud (1728–1802), Professor of Animal Anatomy

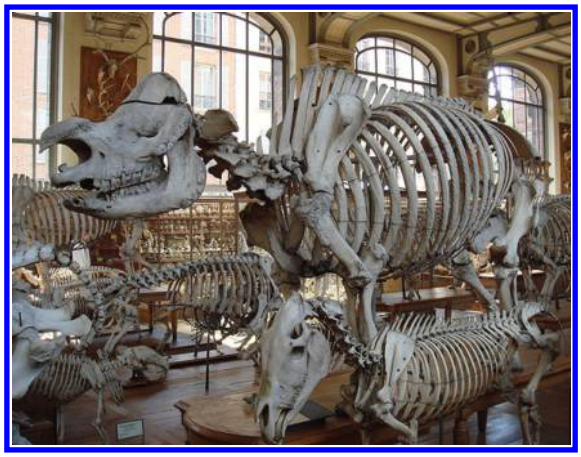

Figure 5 (left). The skeleton of Louis XV's rhinoceros exhibited in the Galerie d'Anatomie comparee, MNHN. © Amandine Péquignot. Figure 6 (right). Left side of the skeleton exhibiting a broken rib. © Service audiovisuel / MNHN

at the Museum, assisted by the anatomist and physician Félix Vicq d'Azyr (1748–1794) and by the naturalist and first Director of the Museum Louis-Jean-Marie Daubenton (1716–1799), performed the dissection. The rarity of the animal attracted numerous spectators, including Pierre-Joseph Desault (1744–1795) and other surgeons from the Hotel Dieu Hospital. Because of the re-organization of this young republican Museum, politicians had to attend this unique moment of science: thus, Charles-Gilbert Romme (1750–1795), member of the Comité de l'Instruction Publique, and Joseph Lakanal were present.

Daubenton made almost 65 anatomical measurements of the carcass, but strangely, the name of the taxidermist, the date and the techniques used for stuffing this amazing specimen were not reported in the manuscript of the dissection and so are unknown. Moreover, nothing was recorded regarding the preparation of the skeleton. The only information was in *Rapport fait au nom du Comité d'instruction publique et des finances sur le Muséum national d'histoire naturelle* (Thibaudeau 1794) which reported the extraordinary costs of 23,703 livres, 18 onces, 5 deniers (3,000 French livres) representing the expenses of the menagerie since 20 brumaire de l'an I, and relating to the dissection of the rhinoceros together with the preparation and mounting of its skin (Thibaudeau 1794: 17). According to George Cuvier (1769–1832), Professor of Comparative Anatomy at the Museum, "the beautiful skeleton" was mounted independently by Jean-Claude Mertrud (Cuvier 1804: 34). The mounted skin obviously contains no part of the skeleton. Jack Thiney, the taxidermist in charge of its restoration in 1992, reported the presence of a wooded frame with one beam for each leg, two half barrels for the pelvic and shoulder girdles that are connected by a central beam between the pelvis and the head.[12] The skin was varnished and stretched on this frame made of oak and hazel-wood hoops (Thiney 1996; Péquignot 1999).

This was the first time an animal of that size underwent a modern taxidermy process. In the eighteenth century, specimens were difficult to prepare with the primitive preservatives and techniques (Farber 1977; Morris 2010; Péquignot 2002). In addition to Daubenton's descriptions, 38 folio plates[13] of the organs of the rhino were made by the

painters of the MNHN, Nicolas Maréchal (1753–1802) and the brothers, Pierre-Jospeh Redouté (1759–1840) and Henri-Joseph Redouté (1766–1852).[14] These drawings have been described by Saban (1983), and were enumerated by Rookmaaker (1983); some were illustrated in Rookmaaker (1983) and Rookmaaker and Visser (1982).

An illustration of the stuffed rhino by Maréchal, published by Lacépède and Cuvier (1801), testifies to it having a small horn at that time, so when and why did this specimen get its huge African horn? How can the scientific knowledge of the period explain this?

SCIENTIFIC IMBROGLIO: LONG OR SHORT HORN?

Six extant species of rhinoceros are recognized today; three are found in Asia (Wilson and Reeder 2005). The Indian rhinoceros (*Rhinoceros unicornis*), living in north-east India and Nepal, is characterized by deep skin-folds and a single nasal horn. Rather similar in appearance is the Javan rhinoceros (*Rhinoceros sondaicus*) of south-east Asia, while the smaller Sumatran rhinoceros (*Dicerorhinus sumatrensis*) has two horns, the front one being the larger. It took quite a long time to establish even the outline of the classification and distribution of the genera of rhinoceroses. In the middle of the eighteenth century, there was little biological knowledge of rhinos because of the scarcity of specimens available for study in Europe (Rookmaaker 1982, 1999, 2005). Cuvier (1812: 8) pointed out that "the difficulty in seeing, and especially, comparing rhinoceroses, delayed for a long time the knowledge of the real [anatomical] character of the species."

The first Indian rhinoceros seen in Europe since the ancient Roman menageries, arrived in Lisbon on 20 May 1515 aboard a Portuguese ship *Nostra Señora de Ajuda*. The animal was a diplomatic gift offered to King Manuel I of Portugal (1469–1521) by Sultan Muzafar II of Cambaia (1476–1526), and sent to Europe by Afonso d'Albuquerque (1509–1515), Governor of the Portuguese possessions in India. This rhino was the subject of the famous woodcut made by Albert Dürer (1471–1528), who, living in Nuremburg, did not see the animal but received a sketch and description from Valentin Ferdinand. From these, Dürer created the woodcut, but his image is inaccurate. He interpreted the rhino's plicae as scaly, armored plates and added several embellishments such as a gorget and an augur-shaped second horn. Dürer's drawing was copied in natural history texts until the nineteenth century (Cole 1953; Coste 1946). Dürer's representation was criticized by Cuvier (1812: 10) who found it "very good for the general outline; but the wrinkles and tubers of the skin are exaggerated to the point they persuade one that the animal is covered with scales." The twisted horn on the shoulders, known as the Dürer's hornlet, was to become important in later debates about the number of horns on the rhinoceros. Later, this animal was sent as a diplomatic gift to Pope Leo X (1475–1521) via Marseilles, where it was seen by King Francis I of France (1494–1547).

The second rhino known in Europe came to Lisbon in 1579 as a gift to King Phillip II of Spain, and it lived until 1585. Although it achieved only local fame, Phillippe Galle (1537–1512) produced an engraving of this animal in 1586. A third rhino was reported during 1684 in London, but there is no known drawing of it. In June 1739, a fourth rhino, brought by Humphry Cole from Bengal and transported to England by Captain Acton on the *Lyel*, was exhibited in Red Lyon Square in London. Observing this animal, the physician James Parsons FRS (1705–1770) wrote the first scientific description, accompanied by a sketch, of a male Indian rhinoceros (Parsons 1743; Thomas 1801; Rookmaaker 1978).

Clara, a female Indian rhinoceros, arrived in 1741 in Rotterdam aboard the ship *Knapenhof*, and became a famous exhibit during 17 years of touring Europe. She was to die in London (Rookmaaker *et al.* 1998; Ridley 2005). In December 1748, Clara arrived in France, via Reims, and was received by Louis XV who accommodated her in the royal menagerie of Versailles. The king declined to buy Clara, since Captain Acton asked him for 100,000 écus (Lacroix 1978). After February 1749, she spent five months in Paris in a shed at the Saint Germain, Fair Rue des Quatre Vents. There, Clara was studied by Buffon and Daubenton (1764) and painted by Jean-Baptiste Oudry (1686–1755) (Clark 1986).

These few opportunities to see a live rhino allowed naturalists to study the anatomical characters of the rhinoceros family and especially the Indian species, and during the following period, the existence of rhinos with single and double horns was generally acknowledged. Parsons (1743) implied the existence of two geographically separate species: one with a double horn in Africa, and another with a single horn in Asia. At that time, some single-horned animals had been reported from Africa and double-horned specimens from Asia. Friedrich Gotthilf Freytag (1723–1776) also found evidence that in both Africa and Asia there were rhinos with two horns (Freytag 1747). Jean-Baptiste Ladvocat (1709–1765), in his *Lettre sur le rhinocéros* (Ladvocat 1749), reached the same conclusion as the Greek traveller Pausanias (115–180AD), who maintained that females on both continents had a single nasal horn, while the African male in place of the hornlet on the shoulder, had a small one on the forehead. Ladvocat (1749) realized that the horn of a female Indian rhinoceros, referring to Clara, was small, only 9 pouces (about 23 cm) in height[15], and was slightly curved backwards, in comparison with the much longer and more massive horn of the Indian male rhino.

Buffon declared in his "Description du Rhinocéros" (Buffon and Daubenton 1764) that there were two varieties of rhinos and the number of horns depended on environmental influences such as climate. In addition, some naturalists claimed that the number of horns could increase with age, from none at birth to two or more in adults. The different illustrations published during the eighteenth century were more confusing than clarifying; for example the Scottish traveller James Bruce (1730–1794) published an illustration (Bruce 1790) of a double-horned rhino with the characteristic folds of skin of *Rhinoceros unicornis* having appropriated Buffon's figure of the Indian rhinoceros from *Histoire naturelle* (1764), and adorned it with a second nasal horn.

Confusion about the species remained, as revealed in an article in *Dictionnaire raisonné, universel d'histoire naturelle* (Valmont de Bomare 1800). This reported the descriptions of various naturalists, such as Peter Kolb (1675–1736), who thought that "the rhinoceros which has only one horn, has a bigger and longer one than those who have two . . . The horn is curved, with the point towards the back in the species with a single horn, but usually upright in the species with a double horn" (Valmont de Bomare 1800: 291). The rhinoceros article in *Nouveau dictionnaire d'histoire naturelle* (Deterville 1819: 239) stated that

> species of this genus were confused for a long time. At that time, we distinguished rhinoceros according to the number of their horns; but since Parsons, Camper and Cuvier, we are sure that their different morphological characters must be based on the shape of molars and the presence or absence of incisors.

Deterville also referred to Blainville (1817) who had personally determined eight species and had characterized *Rhinoceros unicornis* by its "single horn, placed at the end of the nose, sharp, conical, not compressed and always bent backwards." Blainville thought, nevertheless, that "the arrangement of the skin, the number and the shape of horns,

are morphological characters not sufficient to correctly establish the species". He preferred to base his argument on the criteria of the teeth as developed by Cuvier.

Horns of the Versailles rhino

In 1777, the Dutch anatomist Petrus Camper (1722–1789) came to study the rhinoceros of Louis XV in the royal menagerie and made a substantial contribution to the Indian species. He noted the presence of a single horn, the wrinkled skin, and the teeth in the front of the mouth, confirming what Parsons and Daubenton had already written (Rookmaaker 1983). Johann Friedrich Meckel the Younger (1781–1833), an anatomist who spent time in Paris assisting Cuvier, also saw the rhino alive and later studied the teeth in the skull (Cuvier 1804; Faujas 1809; Rookmaaker 1983). Buffon (1778) came to see the rhino quite often and he wrote an "addition à l'article du rhinocéros" of his *Histoire naturelle* (1764), where he recorded measurements from watching the animal for two years and its various actions. He noticed that the skin had the same colour and appearance as the bark of an old elm tree and that it had a brown horn, made from a firm and hard substance. Heinrich Sander (1754–1782), the German anatomist also came to see the rhino (Sander 1779; Lacroix 1978; Rookmaaker 1983).

In 1792, Bernardin de Saint Pierre (1792: 8) noted "the thickened skin in several folds, the big warty studs that covered it and the unique horn on its nose that had been completely rubbed away against the bars." This last observation is akin to Cuvier's comment that this rhino had worn away so much of its horn that only its base was left, roughly one pouce long and eight pouce in width. He reported that since the rhino was obliged to live in a compound surrounded by walls the horn had stopped growing (Lacépède and Cuvier 1801). The animal had used its horn to try to force the bars of its cage. Cuvier's comment about the presence of large tubercles on the skin was relevant. One of these tubercles, if "longitudinal, compressed and raised enough, could be interpreted as a rudiment of a second horn, and might indicate that the number of horns is indeed variable" (Lacépède and Cuvier 1801).

A manuscript[8], possibly attributable to Jean-Claude Mertrud, described the horn thus:

> . . . the rhinoceros, unlike other individuals of its species did not have a conical horn; or a very lengthened shape with the point turned slightly to the rear when it was brought to the Menagerie of Versailles. . . . The horn was developing, but since it was forced to live in a closed cage, it stopped growing. The animal used it to try to break the bars.

This description, corresponding unambiguously to the rhinoceros of Louis XV, was accompanied by a precise study of this horn, including a description of the upper surface, "convex, brown and shaded in the middle with a blackish tint", its lower side, "concave with a depth of a inch nine lines", of a regular edge "thin and carved" and among which "the cavities which we can see are used to tie to the skin". The horn has been measured: "height of 8 pouces and a diameter of 6 pouces." This precise description implied that the horn (matted hair or keratin not true horn) was not bound to the skin any more. This could be possible from the advanced state of decomposition of the rhino's skin and the disgusting smell coming from it[8] as a consequence of the time of more than three weeks required to bring the carcass to the MNHN.

Although the small base of the worn-away horn was in the possession of the taxidermists, they did not fix it on to the head of the rhino but instead fixed a much longer horn that was in their possession, but had come (unknown to them) from an African white rhino (*Ceratotherium simum*). This long horn was still in place in 1892 (Figure 2). It may

be speculated that the long horn was thought to be more appropriate because of the impressive size of the animal and its royal status, despite the republican ethos, and that this led to the only available large horn being used to add splendour to the specimen. Thanks to Nicolas Maréchal's drawing reproduced by Lacépède and Cuvier (1801: plate 34), and a description by Geoffroy Saint-Hilaire (1803), we can partially date the presence of the African horn. Maréchal drew the rhino just after it had been stuffed. In his *Catalogue des mammifères au Muséum national d'histoire naturelle*, Geoffroy Saint-Hilaire (1803) described the *Rhinoceros unicornis* as possessing "a long and conical horn a little bit curved on its nose" corresponding to the African rhino horn, and justified the decision to add it (Geoffroy Saint-Hilaire 1803: 240):

> NCCCCLXII. Individu mort en 1792 à la Ménagerie de Versailles: sa corne, frottée continuellement le long de gros barreaux de bois ne s'éleva point, mais prît seulement beaucoup de volume en largeur; on crut devoir substituer à cette pièce déformée par la domesticité la corne entière d'un autre rhinocéros.[16]

At the end of the eighteenth century the majority of the rhino horns in the MNHN collections came from African species, judging by Daubenton's "Description de la partie du cabinet qui a rapport à l'Histoire naturelle du rhinocéros" and the plates representing them (Buffon and Daubenton 1764). In turn, that limited the taxidermist's choice of horns. Among the possibilities, horn NMXLVI (represented in Buffon and Daubenton 1764: plate VIII, figure 4) was strongly curved backwards and its length – 1 pied 8 pouces, around 50 cm – was close to that of the African one put on the rhino (Figure 2).

In 1994 when the stuffed rhino was transferred from the old zoology gallery to its present position in the historical section of the GGE, the inappropriate long horn was removed and replaced with the cast of a much smaller one, corresponding to the typical horn of the Indian rhino. However, this replacement is smaller (only 11 cm high) than the rhino's own horn.

THE RHINOCEROS OF KING LOUIS XV AS A CULTURAL OBJECT

The rhinoceros of Versailles became a famous specimen at the MNHN mainly due to its remarkable history, although the story of the exchanges of its horn is not well known, despite being questioned by Rookmaaker (1983). The preparation and exhibition of a specimen provide a mirror on the zoological knowledge at a specific time. The story of Louis XV's rhino renders this specimen, and mounted specimens in general, as objects of cultural history in scientific, social, artistic, museological or political contexts (Péquignot 1999, 2002, 2004). The exhibited object has socio-cultural value because it holds meaning for people or social groups due to its age, beauty or association with a significant person or event, or contributes to processes of cultural affiliation (Riegl 1903; Keene 2005; Muňoz-Viňas 2005). Scientific collections clearly have this socio-cultural value.

In the way that Pomian (1987) considered a collection as an anthropological act, the preparation of a specimen (stuffing, mounting, drying, fixing) can also be defined as an anthropological act, and it is necessary to take into account the geographic, social, scientific or technical factors that influence it. In consequence, a specimen has intangible socio-cultural values, and in the preservation of a specimen those intangible values are preserved. The accurate perception of these values depends, among other things, on the importance given to them by museums today. This provoked a deep reflection on natural history

specimens and the manipulation-modification-restoration which could be carried out on them (Péquignot 2000).

The Indian rhino of Louis XV has been the subject of two manipulations during its existence as a stuffed specimen: the first by adding the horn of the wrong species, and the second by replacing that incorrect horn with the cast of an Indian rhino horn. These changes exemplify the modifications that taxidermists, scientists or institutions carried out, presently carry out, and will carry out in the future, on museum specimens according to the etiquette and choices of the period. The specimen that we can see today in the GGE is witness to a twentieth-century vision and scientific decision, which did not allow the exhibition of an uncorrected specimen – a chimera – to the public at the opening of the new gallery in 1994. The decision to exhibit this twentieth-century rhino has been questioned by the team of museology specialists in charge of the renovation of the Galerie de Zoologie, for failing to take into account the socio-cultural value of the African horn, and erasing its historical interpretation and the socio-cultural value.

Nowadays, rhino horns raise another problem for museums; they are prone to theft because of the very high price paid for them. The current dilemma, whether or not to keep the original horn on a rhinoceros specimen, arises out of concern for the safety of specimens and collections.

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NOTES

[1] Public record, Archives Nationale de la Marine, Paris. 4/J/J/1213. 114. Journal de Navigation par le premier pilote du Vaisseau « Le Duc de Praslin », 1770 ; AJ/15/512. 506. Extraits d'une dépêche et d'une lettre de Lemaire, Consul de France au Caire, relatives à des envois d'animaux pour la Ménagerie du Roi, à Versailles (1er novembre 1714 et 26 août 1715) : copies faites pour le Dr Hamy, d'après une source non indiquée.

[2] Île de France (Mauritius), île de Bourbon (La Réunion).

[3] The livre was the principal unit of currency in France until 1795: 1 livre = 20 sous = 240 deniers. In 1795, the franc was introduced, worth 1 livre, 3 deniers.

[4] Public record, Archives Départementales des Yvelines. 2Q, Séquestres révolutionnaires/ 2Q1 à 26, Château de Versailles et dépendances/ 2Q11, ménagerie dont : Mémoires pour la nourriture des lions et soins donnés au rhinocéros, an II.

[5] Public record, Archives Nationale de la Marine, Paris. AJ/15/512. 510. Lettre signée Couturier, régisseur général des Domaines de Versailles, Marly et Meudon, au Directeur général du Jardin du Roy, pour l'informer qu'il est autorisé à choisir ce qui lui conviendra dans la Ménagerie de Versailles pour le Cabinet d'histoire naturelle (19 septembre 1792, Versailles) : original. Extrait du Ms. 1953 (Catal. gén. des Mss., p. 283). AJ/15/512. 511. Lettre signée du même, au citoyen Bernardin de Saint-Pierre, pour lui proposer d'envoyer au Jardin du Roi le Rhinocéros de la Ménagerie de Versailles (17 janvier 1793, Versailles) : original. Extrait du Ms. 1953 (Catal. gén. des Mss., p. 283).

[6] Muhammad V ben Othman.

[7] Known today under the name of Goura.

[8] Public record, Bibliothèque Centrale, MNHN, Paris. Ms 219. « Exposition de la dissection d'un rhinocéros faite au Muséum national d'Histoire naturelle par le citoyen Mertrud, professeur de l'anatomie des animaux, avec les citoyens Daubenton et Vicq d'Azyr » / « Dimension du rhinocéros mâle prise après sa mort, prise par Daubenton » / « corne d'un rhinocéros » / « Rhinocéros à la Ménagerie ».

[9] The French Republican Calendar or French Revolutionary Calendar was a calendar created and implemented during the French Revolution and used by the French government from late 1793 to 1805 (Griffin 1939).

[10] Loisel (1912: 164) gave the date as 13 floréal an II, and incorrectly wrote it as 12 May 1794, instead of 2 May 1794.

[11] Basilicon, or basilicum, is the name given to various ointments (Académie française 1762).

[12] J. Thiney, pers. comm., 1999.

[13] Saban (1983) referred to 38 drawings.

[14] Redouté was a family of Belgian painters, wrongly considered as French. The most famous of the members of this family is the watercolorist and lithographer Pierre-Joseph who learnt from his father, Charles-Joseph (1715–1776). He joined in 1782 Antoine-Ferdinand (1756–1809) his elder brother, painter and decorator in Paris. In 1793, Pierre-Joseph was in charge, with his brother, Henri-Joseph (1766–1852), who was assigned to zoology, of enriching new plates in the collection of the vellum of plants and animals of the Muséum d'histoire naturelle.

[15] When Ladvocat wrote *Lettre sur le rhinocéros* (1749), before the French Revolution, units of measurement were based on Carolingian system. A pouce (2.54264 cm) and a pied de Roi (32.4839 cm) were fairly consistent throughout most of pre-revolutionary France.

[16] NCCCCLXII. Animal died in 1792 at the Menagerie of Versailles: its horn, constantly rubbed along the wooden bars, did not lengthen but only grew a lot in width; we believe this fragment, deformed by captivity, should be replaced by the whole horn of another rhinoceros.

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