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L.C. ROOKMAAKER

Specimens of rhinoceros in European collections before 1778

In the tenth edition of the *Systema Naturae*, Linnaeus (1758: 56) stated that he had seen a skull of the African double-horned rhinoceros, which he named *Rhinoceros bicornis*. In those days, there was considerable argument about the existence, validity and distribution of this species, partly due to the lack of specimens available for study. It is strange, however, that the skull studied by Linnaeus never appears again in the literature and it is presumed lost. In an attempt to clarify this historical puzzle with taxonomic implications, I have tried to list the specimens of rhinoceros known to be in European collection at the time of Linnaeus. This can also help to gain a perspective of the debate on the number of rhinoceros species during much of the 18th century.

There were many cabinets or more formal museums exhibiting natural history specimens in the 17th and 18th centuries. Even mere lists of collectors known in those days run into many pages, eg. Löwegren (1952) for Sweden, Smit (1986) for Holland, Laissus (1964) for France, etc. Catalogues of the contents of these cabinets, if they exist at all, are often hard to find in even specialized libraries. It may seem, therefore, reckless or preposterous to attempt to list the rhinoceros parts available in those days. I offer the following enumeration in all humility, knowing that completeness has not been achieved. While I believe to have covered the more general literature on the rhinoceros published between 1500 and 1800, many items have been found more or less by chance, in an odd sales catalogue or in secondary literature. Many other examples must be hidden in similar places.

The following list has several limitations. I have covered the literature on collections throughout Europe, but it must be realised that most items refer to collections in Holland, Great Britain, Germany, France and Scandinavian countries. Only a few examples from Southern Europe are known, which I believe may be due to personal bias in research interest. There is very little information earlier than the 17th century. I have stopped around 1780, because around that time many new specimens arrived both from Africa and Asia, while the old problem about the number of rhinoceros species was beginning to be solved by the availability of a system proposed by Linnaeus and by the rigid

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anatomical approach by Petrus Camper (1782).

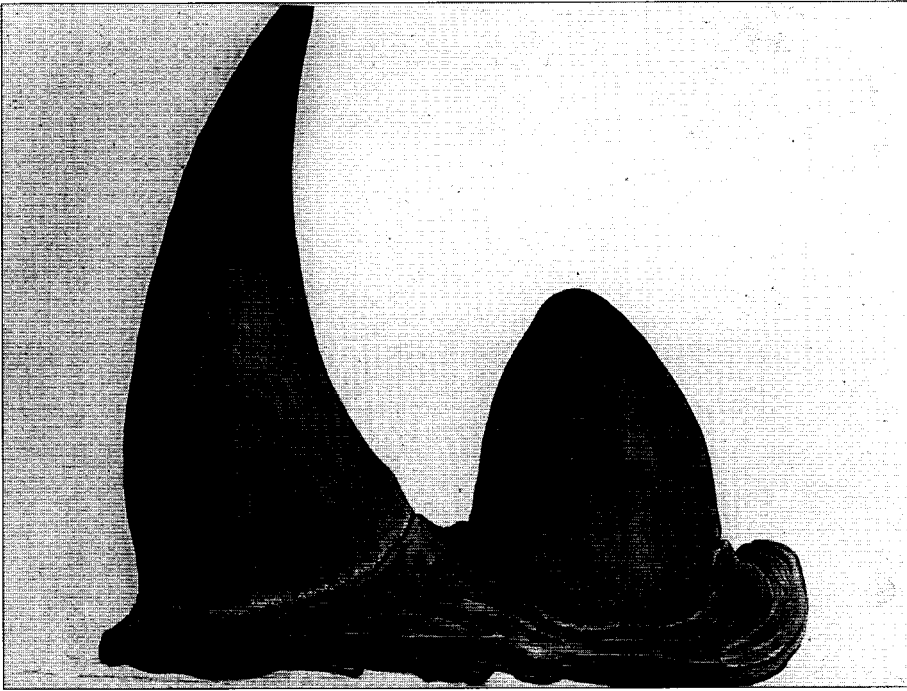
Single rhinoceros horns, i.e. horns unattached to a skull or to a second horn, were relatively common, and it is obvious that many more examples existed than are found in the records. Double horns, i.e. two horns attached to each other by the skin or a piece of bone, were much more rare, and more interesting in the prevailing debate. They are more likely to have been noticed, especially in the course of the 18th century. Mounted skins and skulls were very uncommon. I have noted a few horn cups, i.e. cups artificially made from a rhinoceros horn, often set in elaborate mountings. These were collected for artistic rather than naturalistic purposes. There were many examples in cabinets in Germany, Austria and elsewhere. I have excluded these cups from my search, but for some information on such items one can refer to Jenyns (1955) and Clarke (1987).

The remains of rhinoceroses brought alive to Europe

There were six rhinoceroses alive in Europe between 1500 and 1775. This shows that until at least the second half of the 18th century the animal was a great rarity and few people were able to see it. The history of each individual specimen has been elaborately documented from literary and iconographic sources by Clarke (1986). It is remarkable that the remains of these animals apparently were not preserved after their death, or at least this has never been documented. Each rhinoceros can be briefly discussed here.

1. The first postmedieval rhinoceros arrived from India in Lisbon, Portugal on 20 May 1515, as a present to King Dom Manuel I. On 3 June 1515 it succeeded to defeat an elephant in an epic, but rather disappointing battle. This animal was depicted in the drawing and woodcut by Albrecht Dürer in 1515, which was to become the most well-known depiction, copies and derivations of which can usually be easily spotted from the small twisted 'Dürer-hornlet' on the shoulders. The rhinoceros was shipped to Rome as a gift to Pope Leo X, but in January 1516 the vessel wrecked off the coast of Porto Venere in Northern Italy and the animal drowned.

There are two almost contemporary sources which seem to indicate that not all was lost. Paulo Giovio (1555: 49), writing almost forty years after the event, mentioned (in an English translation of 1585) that it 'afterward drowned by hard fortune, amongst the rocks a little above Porto Venere (for it was, not possible that such a beast could save itself being chayned, albeit it swam



F. A. von Scheidel drew this double horn in Vienna during the second half of the 18th century

miraculously among the sharp rocks, which were all along that coste), yet not withstanding there was brought to Rome, his portraiture, and greatness in February 1515 with information of his nature.' 1515 is 1516, as Giovio used the Florentine calendar, in which the new year starts on 25th March. Later, Damiao de Gois (1566) chronicled the life of King Manuel, and wrote: 'ho Rhinoçerota faio morto à praia, onde lhessolaram ha pelle, & foi levada a Roma.' The 'greatness' (or 'grandezza' in the original Italian) which Giovio said was taken to Rome, is supposed to mean the skin of the animal preserved after it washed ashore, according to Matos (1960: 390). If the skin in fact reached Rome, it was consequently lost. It cannot be located in the Vatican despite various searches. Personally I feel that if at all there is any truth to this story, the hide may have come in the collection of the Medici in Florence, because why else would Giovio around 1550 have chosen the rhinoceros as the emblem of Alessandro de Medici? However, I cannot substantiate this from 16th century texts and enquiries in Florence have not yielded any result. There is a curious remark in a recent paper on taxidermy by Shufeldt (1892: 371): 'Probably, as Mr. Goode informs me, the oldest specimen in existence is a rhinoceros still

preserved in the Royal Museum of Vertebrates in Florence. This was for a long time a feature of the Medicean Museum in Florence, and was originally mounted for the museum of Ulysses Aldrovandus in Bologna. It dates from the sixteenth century.' Although there appears to be no confirmation at all about the continued existence of such a mounted rhinoceros, there is still a chance that the first Lisbon rhinoceros is preserved, which could maybe tell us the actual truth about the existence of the Dürer-hornlet in this particular animal.

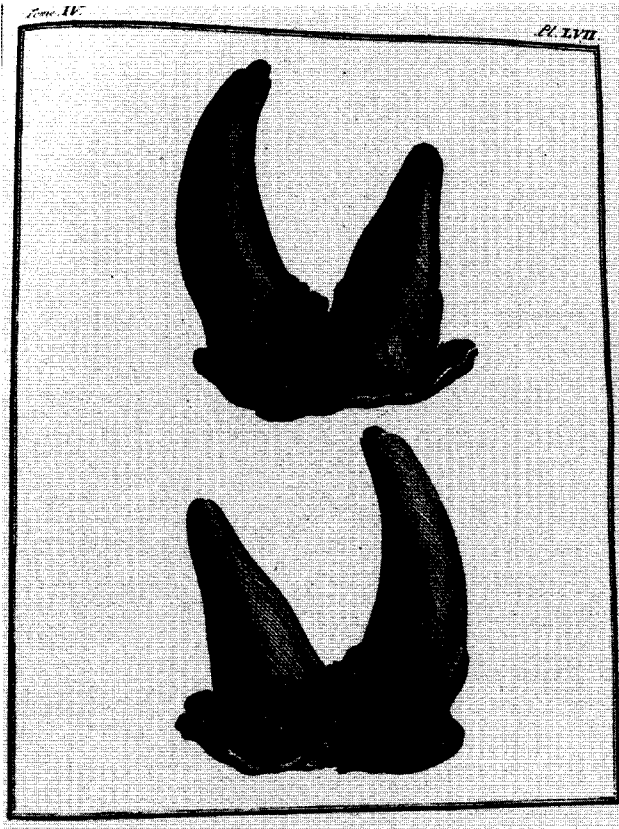
2. The 'Madrid Rhinoceros' arrived from India in Lisbon in January or February 1576. Again it was in the royal stables, now of King Philip II, with whose court it moved to Madrid in 1583. It was alive in April 1584 and may have died a little later. The remains have not been recorded in later sources.

3. The 'First London Rhinoceros' (female) again from India landed on British soil on 23 August 1684. It was exhibited in London in 1684, but there is no evidence what happened later. It probably died in September 1686. There is nothing to indicate that any remains were preserved.

4. The 'Second London Rhinoceros' (male) arrived from India in England on 1 June 1739 and it was shown in London in 1739. There is no clue how long it lived and where it died. One would expect that somebody would have been interested to keep the skin or the skull, or at least the horn of the animal after its death, but there seems to be no trace.

5. 'Clara, the Dutch Rhinoceros' (female) came from Bengal to Holland on 22 July 1741. Its owner, Douwe Mout, proved a good entrepreneur and he took it around Europe from 1746, visiting the major towns of Germany, France, Italy, Austria, Poland, Denmark, Great Britain. The animal was seen by many people, scientists and laymen alike, and it greatly helped to improve the knowledge about the rhinoceros. When the animal grew older, its novelty value disappeared and records about its exhibition become rather sparse after 1755. There is a poster (signed by Joh. Mich. Eben) produced in Germany, stating that Clara died in London on 14 April 1758. The animal's horn broke off in Italy in 1750 and was kept. There is nothing in the literature to indicate that Clara's remains were preserved.

6. The 'Versailles Rhinoceros' (male) again came from Bengal and arrived in the French capital on 11 September 1770. It lived until 23 September 1793, and



*Double horn in the
cabinett du Roi, Paris,
France. From Buffon
1776, pl. LVII.*

skin and skeleton were duly preserved in the Muséum National d'Histoire Naturelle in Paris, where they are still kept.

In 1779, the German Heinrich Sander observed the rhinoceros in Versailles, and at the same time reported about another specimen: 'Vor einigen Jahren sollte ein Rhinoceros, das 2 Hörner hatte, und lange in Teutschland herumgeführt worden war, bei Mannheim auf dem Rhein fahren, das Boot schlug um, und das Thier erstoff im Wasser. Mat hat es aufgefischt, und für das sehenswürdige Kabinet des Churfürsten ausgestopft' (p.6). One assumes that Sander visited the Cabinet of the Elector in Mannheim, and that its director, the Italian Alexander Collini (1727-1806) showed him the rhinoceros and told its story. The shipwreck on the Rhine may have happened between 1765 and 1775. No animal is known around that time to have toured Germany for many years, certainly not one with two horns. Clara, the Dutch rhinoceros, of course would be a candidate (except for the number of horns), but measurements prove

that it was a different animal. The stuffed rhinoceros in Mannheim was transferred, at the beginning of the 19th century, to Munich, where its new curator J.A. Wagner described it in 1835 as a new species, *Rhinoceros cucullatus*. The skin (now lost) was last studied by Zukowsky (1965: 133), who conclusively showed that it was an artefact: it may have been an African black rhinoceros (*Diceros bicornis*) with the skin shaped to resemble the Indian one, certainly the skull and horns are African.

Enumeration of collections with rhinoceros specimens

The following European collections contained parts of the rhinoceros from the 16th century to about 1780. The sources are presented in detail here according to country and name of the collector or institution, both in alphabetical order. The records are summarized in Table 1. Horn cups are only mentioned in the text when they are part of collections otherwise noted. In some cases the measurements of the horns were given by the various authors. Those referring to the length have been quoted below calculated in centimeters; in case of a double horn, the two lengths are given divided by a / slash.

Austria

Unknown Collection: There are two drawings, one of two single horns, the other of a double horn, made on an unknown date in an unknown collection by Franz Anton von Scheidel (1731-1801). As the artist mostly worked in Vienna, he may have seen the specimens in this place. The drawings were auctioned in 1982 (Madison Avenue Galleries, January 20, 1982), but present whereabouts are not known.

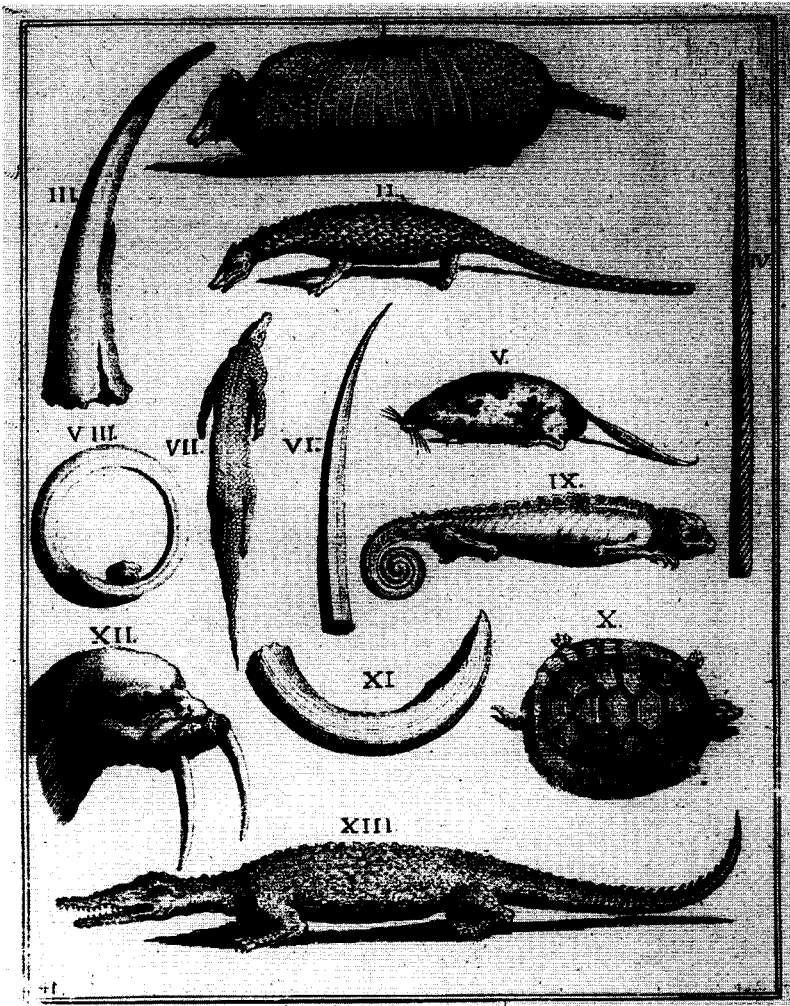
Denmark

King Christian V, Copenhagen: He had a double horn (60 cm/30 cm), several single horns and a piece of skin (Jacobaeus 1696: 4).

Olaus Worm, Copenhagen (1583-1654): In 1650, Johann Conrad Saur of Stralsund gave a rhinoceros horn to Worm (Schepelern 1971: 169). In his catalogue of the collection, Worm (1655: 336) only mentioned a cup from the horn and two molars.

France

Cabinet du Roi, Paris: In 1687, two horns were presented by Mr. Constance,



Specimen in the collection of Sainte Geneviève, Paris, France. From Molinet (1692).

probably as a result of the expedition to Thailand (Choisy 1687: 369). Around the same time, the King of Siam donated six horns (Buffon 1764: 189 note). Daubenton (in Buffon 1764: 204-210) enumerated the items then present, including the skin, poorly mounted, of a foetus received from Java, 96 cm long; 12 horns (lengths of 5, 16.5, 20, 23, 30, 40, 50, 113 cm); two horn cups; a box made of horn given by Baron van Swieten in Amsterdam and obtained in Goa in 1745; a tail and a pyramid-shaped bezoardstone (some pictured in Buffon 1764, pl.8). Buffon (1776, pl. LVII) illustrated a double-horn from the Cabinet du Roi (fig. preceding spread), but he fails to give details about its origin.

Don Pedro Davila, Paris: A sales catalogue (Davila 1767) listed seven single horns (67 cm, 73.5, 81 cm) and one double horn (66 cm/25 cm).

Marquis de Seignelay, Paris: Two horns were presented to him by Mr. Constance around 1687, possibly connected with the expedition to Thailand (Choisy 1687: 376).

Bibliothèque de Sainte Geneviève, Paris: Molinet (1692: 193) catalogued one horn (45 cm), a horncup, a piece of skin and a tail. The horn was illustrated (fig. preceding page).

Germany

Unknown collection in Nuremberg: Among the papers on the rhinoceros left by T.H. Clarke, there is a photograph of a rhinoceros horn, which is said to have been made in Nuremberg in 1605. Although the source is unknown, it may be placed on record here as the earliest recorded horn in Europe.

Jacob Theodor Klein, Danzig (1685-1759): Klein (1760: 36) himself mentioned that he had several single horns. He obtained a double horn (40.5 cm/29 cm) from G. Lehmann, apothecary in Danzig.

Königliche Galerie, Dresden: In 1739, the King received as a gift from a Mr. Eilenburg a double horn (30 cm/24 cm) according to Klein (1760: 35).

King Wilhelm IV, Kassel: When Worm visited in 1611, he saw a rhinoceros horn in a beautiful mounting (Schepelern 1971: 76).

Kabinet der Churfurst, Mannheim: Sander (1779: 6) saw a double horn, and a mounted skin of an animal with two horns, which would have drowned on the Rhine (see above).

Joh. Georg. Michelius, Augsburg: Schroeckius (1686) here recorded a double horn.

Great Britain

When a living rhinoceros arrived in London in 1739, James Douglas and James Parsons collected prints and drawings of this animal. Around that time, Parsons made 10 red chalk drawings of rhinoceros specimens, probably all available in

London. There were drawings of the skin of a very young individual, two single horns, one small skull and one larger skull with two horns (Rookmaaker 1978, nos. 7.1 - 7.10).

Martin Folkes, London (1690-1754): When James Douglas addressed the members of the Royal Society in June 1739, Folkes showed a hoof and a piece of skin (2.5 cm thick) from his collection (cf. Rookmaaker 1978: 31). Possibly this hoof was illustrated in Parsons (1743, pl.3 f.1).

John Hunter, London (1728-1793): Camper went to visit Hunter on 16 October 1785 and was thrilled to find the head (skull) of an adult rhinoceros from Asia (Nuyens 1939: 182). He went back the following day to draw the specimen (Rookmaaker & Visser 1982, fig.4).

Richard Mead, London (1673-1754): Mead was a medical practitioner in London with a large collection of manuscripts, books and naturalia. Parsons (1743, pl.3 f.6) drew a single horn (68.5 cm) in his cabinet. In his paper on the rhinoceros published in 1743, Parsons had postulated the existence of two kinds of rhinoceros, the first Asian with one horn, the other African with two horns. Mead at first disagreed, but changed his mind when 4 months after this paper appeared, he received the bones of the face of a young rhinoceros with two horns in situ, from Angola, brought by a captain of an African trader (Parsons 1766, cf. Sloane 1749).

James Parsons, London (1705-1770): Doctor Parsons, who had studied the Indian rhinoceros alive in London in 1739, received a double horn brought from the Cape by William McGuire, which he described and illustrated (Parsons 1766, Pl. II - see fig. next page).

Royal Society of London: Grew (1681: 29-31) catalogued the collection of the society, with details of an entire skin of a young rhinoceros, a piece of skin, a horn from the Duke of Holsteine, another presented by Sir Robert Southwell, two other single horns, and a tail. The tail was figured by Parsons (1743, pl.3 f.2). The skin of the young animal was still present in 1739 when it was loaned to James Douglas (recorded in the Journal Book, quoted in Rookmaaker 1978: 31). At that time it was drawn by Parsons, five of whose red chalk drawings are in the Douglas Collection of rhinoceros prints and drawings in the Hunterian Collection, University of Glasgow (Rookmaaker 1978, nos. 7.1-7.5).



Double horn from the Cape of Good Hope in the collection of Parsons (1766, pl. II).

Hans Sloane/British Museum, London: Around 1743, Sloane (1660-1753) had three single horns (81 cm, 63.5 cm) and the bones of the head, presumably of an Asian animal (Parsons 1743: 529, pl.3 f.7-9). Later, Sloane (1749) reported the addition of a double horn from the South-East coast of Africa, given by Charles Lockyer. This collection formed the nucleus of the British Museum. When Camper visited this institution in 1785, he saw several heads of rhinoceroses from the Orient, others from the Cape of Good Hope, but he was disappointed to see that all were quite severely damaged (Nuyens 1939: 175).

Italy

Ferdinando Cospi, Bologna: Legati (1677: 13) recorded one horn.

Collegium Societas Iesu, Rome: The museum had three single horns in 1678 (de Sepibus 1678: 30).

Technicotheca of Grand Duke, Florence: Bartholinus (1678: 162) recorded a double horn.

Ludovico Moscardo, Verona: In a catalogue of the collection, Moscardo (1672: 243) recorded different parts of the rhinoceros, like a double horn, a molar and a drinking cup.

The Netherlands

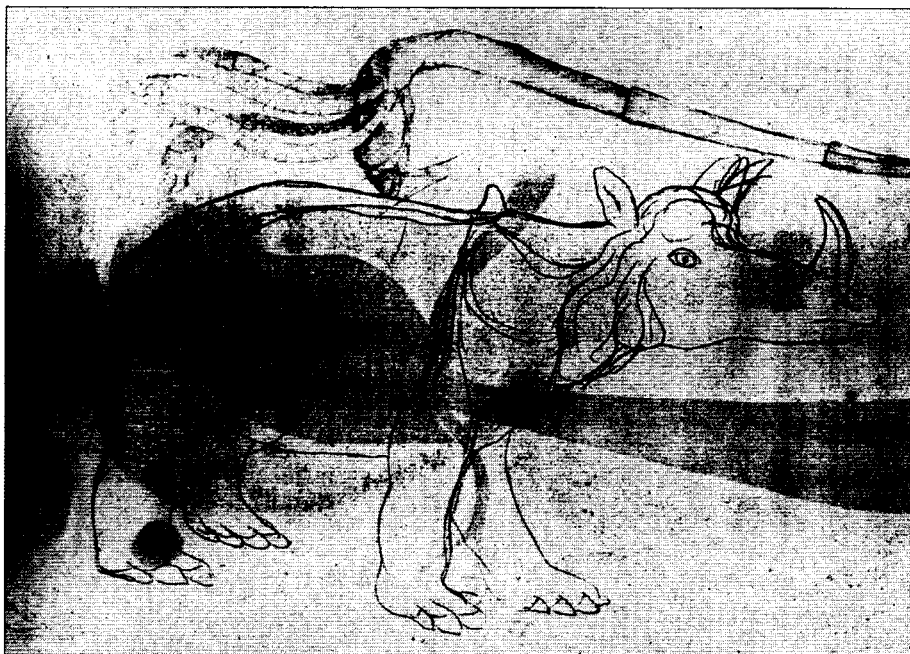
Unknown collection: In 1630, a head brought from Java to Holland was dissected and was found to contain a stone of 2 ounces in weight. This was reported by Piso (1658: 52) in a footnote to the account by Bontius, and possibly this head was the one depicted in the illustration on page 51.

Amsterdam [owner unknown]: When Jacobaeus (1910: 27) visited Amsterdam in 1672, he went to a ship ('navigio') where a number of animals were exhibited, including a rhinoceros 'udstopped' (mounted). It may be the same specimen which was hired by the town of Delft to two traders in 1667, and even as the one in Blauw-Jan in Amsterdam c.1700 (see below).

Blauw Jan, Amsterdam: This place was famous as a collection of living animals and of mounted specimens exhibited for the sake of curiosity, from 1698 to 1784. Animals seen here, or in other localities in Amsterdam around 1700, were illustrated by Jan Velten in his *Wonderen der Natuur*, an unpublished volume of drawings (Artis-Bibliotheek, Amsterdam, unpublished; cf. Pieters & Pinkster 1994). It includes a small drawing of a rhinoceros (fig. next page). No living specimen was recorded in Holland then (the first arrived only in 1741), which leads to the assumption that it was a mounted skin. However, it could have been drawn in another locality although presumably in Amsterdam, or Velten could have copied from another drawing - like a copy of Dürer's animal elsewhere in the same volume. If there was a skin in Amsterdam in those days, it could be the same as the one exhibited in 1667, as mentioned above.

Joan Coenraad Brandt, Amsterdam (1703-1791): Camper (1782: 155) knew a number of horns in this private collection, one of which measured 104 cm.

Petrus Camper, Klein Lankum (1722-1789): Camper collected many rhinoceros specimens, including material from Java received in 1786/7, but most arrived in the 1780's (Rookmaaker & Visser 1982). Earlier he received the skull and skin of the head of an adult black rhinoceros, sent from the Cape of Good Hope by the Governor, Joachim Annema, in 1771 (described by Camper 1782). He also had a nasal bone from the Cape with two horns (76 cm/26 cm) and a similar specimen bought in Paris in 1777 again with two horns (17 cm/6 cm).



Rhinoceros in Blauw Jan, Amsterdam. From Jan Velten's Wonderen der Natuur; Artis-Bibliotheek, Amsterdam.

H.C.J. van Eversdyck, Amsterdam (1727-1765): The collection was auctioned on 21 April 1766, when there were two horns (22.8 cm, 19 cm) and a tail of a rhinoceros (Eversdyck 1766).

Abraham Gevers, Rotterdam (1712-1780): Camper (1782: 154) saw a double horn in 1773 in this cabinet.

Laurentius Theodorus Gronovius, Leiden (1730-1777): Gronovius (1763: 4) had one horn.

Albert Seba, Amsterdam (1665-1736): In 1727, Seba had eight drinking cups made from rhinoceros horn and ivory (Engel 1937: 84).

Stadholder Willem V, The Hague: Camper (1782: 154) mentioned that the royal collection had three horns attached to one piece of skin, as well as the mounted skin of a very young rhinoceros with two horns. This skin could be the one sent from the Cape of Good Hope by the commander R.J. Gordon in 1779 (Rookmaaker 1989: 285). An inventory of the Cabinet of Curiosities in 1759



Double horn in the collection of Swammerdam in Amsterdam. From Bartholinus 1678: 163.

listed a rhinoceros horn cup (Drossaers & Scheurleer 1974, II: 736). The same book (I: 205) gives a description of the contents of the Palace Noordeinde in The Hague in 1632 including a 'copken van eenen rhinoceros' which probably was a teacup with a depiction of a rhinoceros.

Jan Jacobsz. Swammerdam, Amsterdam (1606-1678): In the sales catalogue of 1679, we find listed two double horns, three single horns and a molar. Bartholinus (1678: 162) depicted one of the double horns in this collection (fig. previous page).

Theatrum Anatomicum, Delft: In October 1662, the Dutch East India Co. gave the skin of a rhinoceros to be shown in the Anatomical Theater in the town of Delft. The town council decided in May 1667 that the specimen could be hired out to two tradesmen from Amsterdam, Abraham van der Wielen and Maurits Solomon. Although the council stipulated an annual rent, it seems that they received only one payment (Houtzager 1980: 57-61). In 1684, Jacobaeus (1910: 84) saw this or another rhinoceros again in the Theatrum Anatomicum.

Theatrum Anatomicum, Leiden: The first catalogue of this department of the University of Leiden listed the skin of the head of a young rhinoceros received between 1622 and 1628 (Barge 1934).

Theatrum Anatomicum, Rotterdam: Camper (1782: 154) recorded a double horn, seen around 1773.

University of Leiden: The collection of naturalia was kept in the Botanical Gardens for much of the 17th and 18th centuries. Catalogues of 1659 and 1692 list rhinoceros 'horns' and 'ribs'. In 1677, Johan Bax shipped a living rhinoceros from the Cape of Good Hope to Stadtholder Willem III, but it died in transit, and the skin was donated to the university (Heniger 1986: 71). It was still present in 1736 when the London doctor James Douglas, accompanied by the artist Jan Wandelaar, saw it and made some notes and drawings of it (Rookmaaker 1976). Gmelin (1767) recorded three rhinoceros specimens in Leiden, said to be all double-horned. Camper (1782: 164) mentioned a part of the lower jaw of a large rhinoceros.

Russia

Academia Scientiarum Petropolitanae: In the 1770's Pallas (1780: 211, pl.9 f.2)

received some parts of the skull of a rhinoceros from the East Indies.

Kaiserliche Kabinet, St. Petersburg: Klein (1760: 35) recorded a double horn.

Sweden

Collection of the Kings of Sweden: In 1632, the Swedish Royal family received a rhinoceros horn from Germany (Löwegren 1952: 48). Linnaeus (1754: 11) recorded just one horn, artificially shaped to show three end, in the collection of Gustav IV Adolf. This may be the one listed in a catalogue of 1652 of Drottningens Kunstkammer, and in the catalogue of 1773 of Ulriksdal (Löwegren 1952: 50, 298). There were others, as five from this source are still present in the Zoological Museum of the University of Uppsala and in the Cabinet in Drottningholm (Wallin 1994).

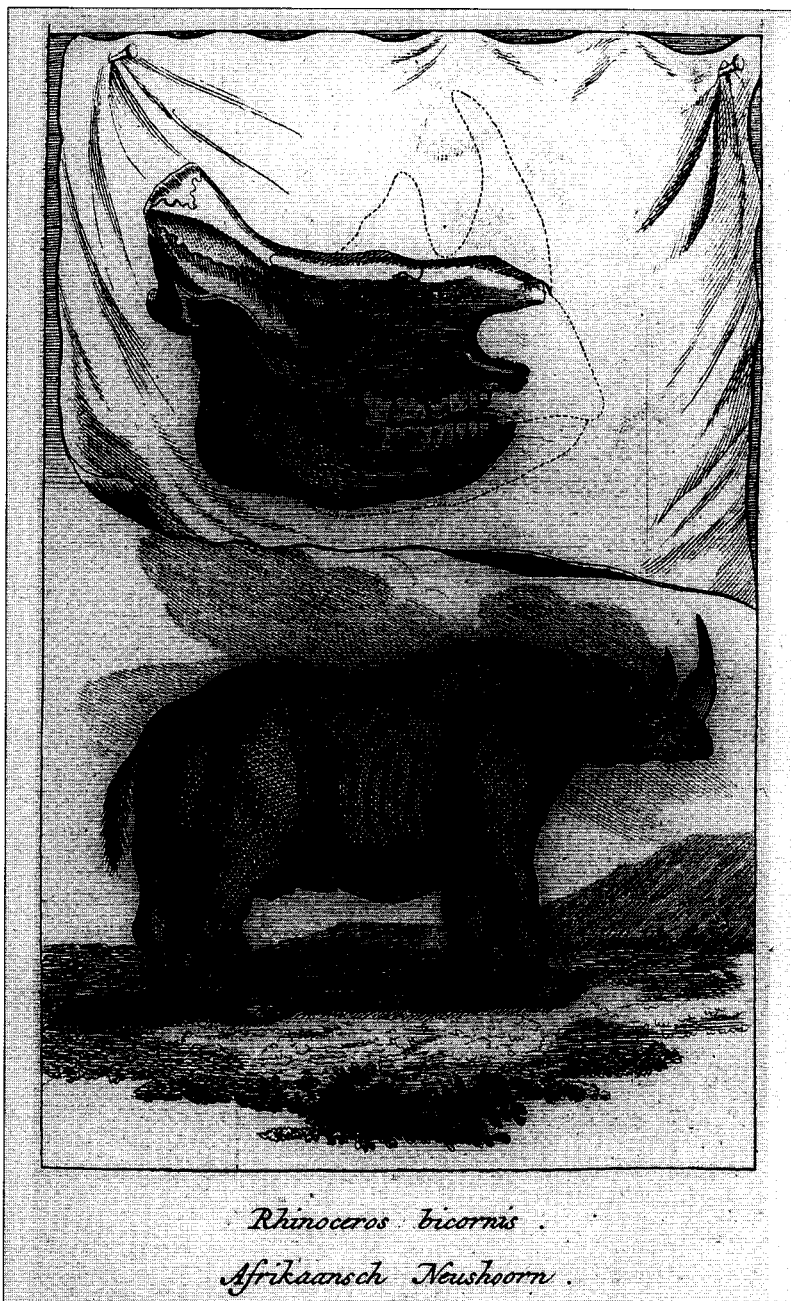
Kungliga Svenska Vetenskapsakademien, Stockholm: When Anders Sparrman (1748-1820) returned to Sweden from his journey to South Africa and with James Cook, he brought with him the skull, double horns, skin, penis and vertebrae of a black rhinoceros from the Cape of Good Hope. This material passed to the Academy collection in Stockholm, probably in the 1770's or 1780's (Rookmaaker 1989: 147). The skull and a side view of a mounted skin were illustrated in the travel journal by Sparrman (1783, pl. V - fig. next page).

Marten Knutsson Törnhielm, Stockholm (1663-1723): He had a rhinoceros horn in 1737 (Löwegren 1952: 69).

Uppsala University: One rhinoceros horn was donated by Carolus Gyllenberg (1679-1746) in the first half of the 18th century (Löwegren 1952: 194).

Discussion

Obviously the above list only scratches the surface. It appears from the available records that at least single horns were quite common. These could have belonged to any of the five extant species of rhinoceros, as even double horns could become detached and offered separately. Double horns were rarer, but in perspective maybe common enough to make one wonder why the debate about the separate identity of these animals continued as far into the 18th century as it did. Mounted specimens were very few and most belonged to very young animals.



*African rhinoceros specimens brought by Sparrman to Sweden in 1776.
From Sparrman 1783, pl. V.*

References:

- Barge, J.A.J., 1934. De oudste inventaris der oudste academische anatomie in Nederland. Leiden/Amsterdam, H.E. Stenfort Kroese, pp. 74.
- Bartholinus, T., 1678. De unicornu observationes novae, secunda editione. Amstelaedami, Henr. Wetstenium, pp. xvi, 381, xv.
- Blunt, W., [1971] 1984. The compleat naturalist: a life of Linnaeus. Paperback edition. London. [1st edition 1971].
- Buffon, G.L. Leclerc de, 1764. Histoire Naturelle, générale et particulière, vol. XI. Paris, Imprimerie Royale, pp. iv, 451.
- , 1776. Histoire Naturelle, générale et particulière, Supplément 3. Paris, Imprimerie Royale.
- Camper, P., 1782. Natuurkundige verhandelingen ... over den rhinoceros met den dubbelen horen. Amsterdam, erven P. Meijer en G. Warnars, pp. iv, 235, ii.
- Choisy, F.T. de, 1687. Journal ou suite du voyage de Siam. Amsterdam, Pierre Mortier, pp. iv, 377.
- Clarke, T.H., 1986. The rhinoceros from Dürer to Stubbs, 1515-1799. London, Sotheby, pp. 219.
- Clarke, T.H., 1987. "I am the Horn of a Rhinoceros." *Apollo*, May 1987: 344-349.
- Daubenton, L.J.M. de, 1764. Description de la partie du cabinet qui a rapport à l'histoire naturelle du Rhinocéros. Pp. 204-210 in Buffon 1764.
- Davila, P., 1767. Catalogue systématique et raisonné des curiosités de la nature et de l'art. Paris, Briasson, pp. xxxvi, 571.
- Drossaers, S.W.A. & Th.H. Lunsingh Scheurleer, 1974. Inventarissen van de inboedels in de verblijven van de Oranjes en daarmede gelijk te stellen stukken, 1567-1795. 's Gravenhage.
- Engel, H., 1937. The life of Albert Seba. *Svenska Linné-Sällskapetets Arsskrift*, 20: 75-100.
- Eversdyck, H.C.J. van, 1766. Catalogus van eene uitmuntende verzameling. Amsterdam, pp. [vii], 128.
- Giovio, Paolo, 1555. Dialogo dell'impresie militari et amorose. Roma, Antonia Barre, pp. vii, 146, ix.
- , 1585. The worthy tract, contayning a discourse of rare inventions, both militarie and amorous called impresie. London, Simon Waterson.
- Gmelin, J.F., 1767. Waarneeming over den rhinoceros of neushoorn. *Verhandelingen Hollandsche Maatschappij voor Wetenschappen te Haarlem*, 9 (3): 632-636.
- Gois, Damiao de, 1566. Chronica do felicissimo Rei D. Manuel. Lisbon.
- Grew, N., 1681. *Musaeum Regalis Societatis*. London, W. Rawlins, pp. xii, 388.
- Gronovius, L.T., 1763. *Zoophylacii Gronoviani fasciculus primus exhibens animalia quadrupeda*. Lugduni Batavorum, Auctoris, pp. iii, 136.
- Heniger, J., 1986. Hendrik Adriaan van Reede tot Drakenstein (1636-1691) and Hortus Malabaricus. Rotterdam, A.A. Balkema, pp. xvi, 295.
- Houtzager, H.L., 1979. Dieren in Delft. *Tijdschrift voor de geschiedenis der geneeskunde, natuurwetenschappen, wiskunde en techniek*, 2: 52-61.
- Jacobaeus, O., 1696. *Museum Regium*. Hafniae, Joachim Schmetgen, pp. xvii, 201, v.
- , 1910. *Rejsebog (1671-1692)*, edited by Vilhem Maar. Kobenhavn, Gyldendalske, pp.

i, xv, 186.

Jenyns, R.S., 1955. The Chinese rhinoceros and Chinese carvings in rhinoceros horns. *Transactions of the Oriental Ceramic Society*, 29: 31-62, pls.15-26.

Klein, J.T., 1760. *Natürliche Ordnung und vermehrte Historie der vierfüssigen Thiere*. Danzig, J.C. Schuster, pp. xiv, 156. [Latin edition: 1751, *Quadrupedum dispositio*. Lipsiae.]

Laissus, Y., 1964. *Les cabinets d'histoire naturelle*. Pp. 659-712 in C. Bedel, R. Hahn, Y. Laissus & J. Torlais, *La curiosité scientifique au XVIIIe siècle*. Paris, Hermann.

Legati, Lorenzo, 1677. *Museo Cospiano*. Bologna, G. Monti.

Linnaeus, C., 1754. *Museum S:ae R:ae M:tis Adolphi Fiderici Regis*. Holmiae, Typographia Regia, pp. [3], xxx, 96, index.

—, C., 1758. *Systema Naturae*, editio decima. Holmiae, Laurentius Salvius, pp. iv, 824.

Löwegren, Yngve, 1952. *Naturaliekabinett i Sverige under 1700-talet*. Uppsala and Stockholm, Almqvist & Wicksell, pp. 407.

Matos, Luis de, 1960. *Forma e natura e costumi del Rinoceronte*. *Boletim Internacional de Bibliografia Luso-Brasileira*, 1 (3): 387-398.

Molinet, Claude du, 1692. *Le Cabinet de la Bibliothèque de Sainte Geneviève*. Paris, A. Dezallier, pp. viii, 224, viii.

Moscardo, L., 1672. *Note overo Memorie del Museo del Conte Ludovico Moscardo*. Verona, Andrea Rossi, pp. xiv, 488.

Nuyens, B.W.T. (ed.), 1939. *Petri Camperi itinera in Angliam 1748-1785*. *Opuscula selecta neerlandicorum de arte medicina*, 15: i-lix, 1-264.

Pallas, P.S., 1780. *Additamentum*. *Acta Academiae scientiarum imperialis Petropolitanae*, 1 (2): 210-212, pl.9.

Parsons, J., 1743. A letter ... containing the natural history of the rhinoceros. *Philosophical Transactions of the Royal Society*, 42 (470): 523-541, pls.1-3.

—, 1766. A letter ... on the double horns of the rhinoceros. *Philosophical Transactions of the Royal Society*, 56: 32-34, pl.2.

Pieters, F.F.J.M. & S. Pinkster, 1994. 1704: De eerste Zuidamerikaanse tapir in Europa. Pp. 82-85 in: M. Coomans-Eustatia, R. Moolenbeek, W. Los & P. Prins (eds.), *De horen en zijn echo*. Bloemendaal, Amsterdam.

Piso, G., 1658. *De indiae utriusque re naturali et medica, libri quatuordecim*. Amstelaedami, Elzevirios.

Rookmaaker, L.C., 1976. An early engraving of the black rhinoceros (*Diceros bicornis* (L.)) made by Jan Wandelaar. *Biological Journal of the Linnean Society*, London, 8: 87-90, pls. 1-2.

—, 1978. Two collections of rhinoceros plates compiled by James Douglas and James Parsons in the eighteenth century. *Journal of the Society for the Bibliography of Natural History*, 9 (1): 17-38.

—, 1989. *The zoological exploration of Southern Africa 1650-1790*. Rotterdam, A.A. Balkema, pp. xvi, 368.

Rookmaaker, L.C. & R.P.W. Visser, 1982. Petrus Camper's study of the Javan rhinoceros (*Rhinoceros sondaicus*) and its influence on Georges Cuvier. *Bijdragen tot de Dierkunde*, 52: 121-136, figs. 1-8.

Sander, H., 1779. *Nachricht vom Rhinoceros in Versailles*. *Naturforscher*, 13: 1-10.

- Schepelern, H.D., 1971. Museum Wormianum, dets forudsætninger och tilblivelse. København, Wormianum, pp. 435.
- Schroeckius, Lucas, 1686. De gemino rhinocerotis cornu. Miscellanea curiosa, Dec.II, anno V: 468-469.
- Sepibus, Georgius de, 1678. Romani Collegii Societatus Jesu Museum celeberrimum. Amstelodami, Janssonio-Waesbergiana, pp. vi, 66, index.
- Shufeldt, R.W., 1892. Scientific taxidermy for museums. Report of the Smithsonian Institution, 1892: 369-436.
- Sloane, H., 1749. A letter ... containing accounts of the pretended serpent-stone ... together with the figure of a rhinoceros with a double horn. Philosophical Transactions of the Royal Society, 46: 118-119, 123-125, pl.2.
- Smit, P., 1986. Hendrik Engel's alphabetical list of Dutch zoological cabinets and menageries, second edition. Amsterdam, Rodopi, pp. x, 340.
- Sparrrman, A., 1783. Resa till Goda-Hopps-Udden, vol. 1. Stockholm, A.J. Nordström, pp. xv, 766.
- Swammerdam, J.J., 1679. Catalogus van een seer wel gestoffeerde konstkamer. Amsterdam, pp. 143.
- Wallin, Lars, 1994. Catalogue of type specimens, 4: Linnaean specimens. Uppsala, Zoological Museum, Uppsala University.
- Worm, O., 1655. Museum Wormianum. Lugduni Batavorum, Elsevirius, pp. xii, 389, iii.
- Zukowsky, L., 1965. Die Systematik der Gattung Diceros Gray, 1821. Zoologische Garten, (N.F.) 30: 1-178, figs. 1-81.

Appendix:

Table 1. Rhinoceros specimens in Europe, arranged by item

Dates are those when the specimen was imported or first noted. Only reference to contemporary illustrations is made.

Country and town	Date	No.items	Illustration
A. SINGLE HORNS			
Austria			
Vienna (?), unknown collection	1750	horns: 2	F.A.von Scheidel, drawing
Denmark			
Copenhagen, Worm	1650	horn: 1	
Copenhagen, King Christian V	1696	horns	
France			
Paris, Marquis de Seignelay	1687	horns: 2	

Paris, St. Geneviève	1692	horn: 1	Molinet 1692, f.III
Paris, Cabinet du Roi	1764	horns: 12	Buffon 1764, pl.8
Paris, Davila	1767	horns: 7	
Germany			
Nuremberg, unknown collection	1605	horn: 1	Drawing, unknown collection
Kassel, Wilhelm IV	1611	horn in mount: 1	
Danzig, Klein	1751	horns	
Great Britain			
London, Royal Society	1681	horns: 4	
London, Mead	1743	horn: 1	Parsons 1743, pl.3 f.6
London, Sloane/British Museum	1743	horns: 3	Parsons 1743, pl.3 f.7
Italy			
Bologna, Cospi	1677	horn: 1	
Rome, Collegium Soc. Iesu	1678	horns: 3	
Netherlands			
Leiden, University	1659	horns: several	
Amsterdam, Swammerdam	1679	horns: 3	
Leiden, Gronovius	1763	horn: 1	
Amsterdam, van Eversdyck	1766	horns: 2	
Amsterdam, Brandt	1782	horns: several	
Sweden			
Stockholm, Gustav IV Adolf	1632	horns: 5	
Uppsala, University	1725	horn: 1	
Stockholm, Törnhielm	1737	horn: 1	

B. DOUBLE HORNS

Austria			
Vienna (?), unknown collection	1750	double-horn: 1	F.A.von Scheidel, drawing
Denmark			
Copenhagen, King Christian V	1696	double horn: 1	Jacobaeus 1696, pl.3 f.4
France			
Paris, Davila	1767	double horn: 1	
Paris, Cabinet du Roi	1776	double-horn: 1	Buffon 1776, pl.57
Germany			
Augsburg, Michelius	1686	double horn: 1	
Dresden, Königliche Galerie	1739	double horn: 1	
Danzig, Klein	1752	double horn: 1	Klein 1760, pl.II

Mannheim, Electoral Cabinet	1779	double horn: 1	
Great Britain			
London, Mead	1743	double horn: 1	
London, Sloane/British Museum	1743	double horn: 1	Parsons 1743, pl.3 f.8,9
London, Parsons	1766	double horn: 1	Parsons 1766, pl.II
Italy			
Verona, Moscardo	1672	double horn: 1	
Florence, Grand Duke	1678	double horn: 1	Bartholinus 1678: 163
Netherlands			
Amsterdam, Swammerdam	1679	double horns: 2	
Leiden, University	1767	double horns: 3	
Rotterdam, Gevers	1773	double horn: 1	
Rotterdam, Theatrum Anatomicum	1773	double horn: 1	
The Hague, Willem V	1782	3 horns attached	
Klein Lankum, Camper	1782	double horn: 1	
Russia			
St.Petersburg, Kaiserliche Kabinet	1752	double horn: 1	
Sweden			
Stockholm, Gustav IV	1754	double horn: 1	

C. MOUNTED SPECIMEN

France			
Paris, Cabinet du Roi	1764	Skin of foetus	Buffon 1764, pl.8 f.2
Germany			
Mannheim, Electoral Cabinet	1779	Skin with 2 horns	
Great Britain			
London, Royal Society	1681	Skin of young	J.Parsons: drawings
Netherlands			
Delft, Theatrum Anatomicum	1667	Mounted skin	
Amsterdam, Exhibition	1672	Mounted skin	
Leiden, University	1677	Skin	
Amsterdam, Blauw Jan	1700	Mounted skin	
The Hague, Willem V	1782	Skin, young, 2 horns	
Sweden			
Stockholm, Vetenskaps Akademien	1776	Skin from Africa	Sparrman 1783, pl. IV

D. SKULLS, HEADSKIN

Great Britain

London, Unknown collection	1740	Skull	J.Parsons: drawing
London, Sloane/British Museum	1743	Bones of head	
London, British Museum	1785	Several heads	
London, John Hunter	1785	Head old Asian rh.	

Netherlands

Leiden, Theatrum Anatomicum	1628	Headskin	
Unknown (Piso)	1658	Head, bezoarstone	Piso 1658: 52
Klein Lankum, Camper	1771	Skull/head from Cape	Camper 1782, pl.I-III
Leiden, University	1782	Part of lower jaw	

Russia

St.Petersburg, Academy of Science	1780	head/skull, Indies	
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Sweden

Stockholm, Vetenskaps Akademien	1776	Skull from Africa	Sparrman 1783, pl. IV
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E. VARIOUS MATERIAL

Denmark

Copenhagen, Worm	1655	Molars: 2	
Copenhagen, King Christian V	1696	Piece of skin	

France

Paris, St. Geneviève	1692	Piece of skin; tail	
Paris, Cabinet du Roi 1764		Tail; bezoard stone	

Great Britain

London, Royal Society	1681	Piece of skin; tail	Parsons 1743, pl.3 f.2
London, Folkes	1739	Piece of skin; hoof	Parsons 1743, pl.3 f.1 (?)

Italy

Verona, Moscardo	1672	Molar: 1	
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Netherlands

Leiden, University	1659	Ribs	
Amsterdam, Swammerdam	1679	Molar	
Amsterdam, van Eversdyck	1766	Tail	

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