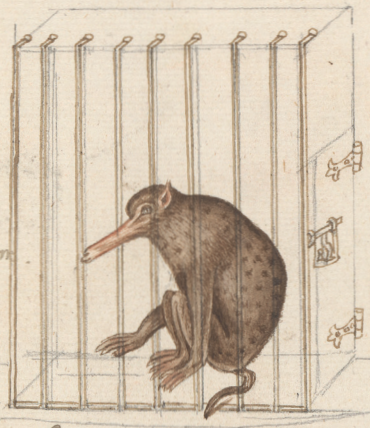

Coati
Brasilianorum

Cercopitheci Brasiliani species, magnitudine leporis, rostrum habens pedis longitudine.

Koati.	Coati brasilianorum.	Coati

Mus indicus.

Short notice

A New Identification and Source for Anselmus Boëtius de Boodt's 'Brazilian Coati'

• DENIZ MARTINEZ* •

The *Historia Naturalis* has been in the care of the Rijksmuseum on the basis of a long-term loan since 2017, the year in which it was purchased by a private individual. Comprising twelve imperial folio volumes containing illustrations of flora and fauna, this incredible 'museum on paper' was commissioned by Holy Roman Emperor Rudolf II (1552-1612) and compiled by his court physician, Anselmus Boëtius de Boodt (1550-1632), between circa 1596 and 1610.[1] Included in this collection, in De Boodt's quadruped albums, are two separate illustrations identified as 'coatis'. Related to raccoons, these procyonid mammals, endemic to the Americas, are distinguished by their long, striped tails and elongated, flexible snouts.[2] These very different illustrations, one recognizable and one peculiar, raise intriguing questions about their origin.

Two Coati Illustrations

The animal shown in the first quadruped album, despite being identified in a notation beside its cage and in the later added header as a 'Coati Brasilianorum' (Brazilian coati), bears little resemblance to a real coati (fig. 1). The only feature that even vaguely suggests a coati is a long nose. In actuality, however, coati snouts are not elongated to this extent. As the museum's own entry observes, 'the very long snout or nose suggests another, unknown animal'.[3] If not a coati, then to what other mammal might such a long snout belong?

< *Fig. 1*
ANSELMUS BOËTIUS DE BOODT, Animal labelled as 'Coati Brasiliorum', in *Historia Naturalis*, 1596-1610, first quadruped album, p. 91.
Pen and brown ink and watercolour, with later additions in pencil, 132 x 182 mm.
Amsterdam, Rijksmuseum, inv. no. RP-T-BR-2017-1-1-91, on loan from a private collection.

Fig. 2
ANSELMUS BOËTIUS DE BOODT, South American Coati labelled as 'Mus indicus', in *Historia Naturalis*, 1596-1610, second quadruped album, p. 17.
Watercolour, body colour, heightened with opaque white, with later additions in pencil, 166 x 297 mm.
Amsterdam, Rijksmuseum, inv. no. RP-T-BR-2017-1-2-17, on loan from a private collection.

Below the same illustration, a second note suggests instead that the animal depicted is a 'Cercopitcheci Brasiliani' – an iteration of an obsolete scientific name for the Common Marmoset (now *Callithrix jacchus*), a small monkey endemic to Brazil. Yet the image looks nothing like a marmoset, nor is it identifiable as any other known primate species.[4] In a rather confusing footnote, the 1999 monograph on the De Boodt albums instead tentatively identifies the animal depicted as 'a proboscidean (Rhynchocyon cirney), an African animal', presumably referring to the Chequered Elephant Shrew (*Rhynchocycon cirnei*).[5] Once again, however, nothing other than a long snout supports the animal's identification as a kind of elephant shrew.

By contrast, the animal illustration in the second album is readily identifiable as a coati (fig. 2), though it has not been labelled as such. It bears the title 'Mus indicus' (Indian mouse), the name assigned this animal by Conrad Gessner (1516-1565) alongside its earliest published image in the 1554 edition of his *Historiae Animalium* (fig. 3). In fact, Gessner's printed image was modelled after the oldest known European depiction of the same animal, a watercolour (fig. 4) sent to him by Antonio Musa

Brassavola (1500-1555), a physician to popes and kings.[6] This initial identification of the coati as a rodent from India reflects the general state of confusion and uncertainty regarding both the geographic origins and biological identity of these 'new', heretofore unknown animals entering court menageries and cabinet collections in Europe.

Contrary to the first, the animal in this second illustration is unquestionably a coati. In fact, its realistic rendering allows it to be identified more specifically as a South American Coati (*Nasua nasua*, fig. 5). Furthermore, the collar around its neck indicates the artist likely based his illustration on a captive live animal. It is known that both live and preserved coati specimens were imported to Europe from at least the mid-sixteenth century, and there were likely one or more in Rudolf's collection.[7] However, because it was common practice at the time for such images to be copied and circulated amongst both collectors such as Rudolf and naturalists such as Gessner and De Boodt, it is not known if this particular animal was, in fact, part of the Habsburg menagerie.[8]

22 Appendix

uocant)pro Ichneumone aſſumũt:eſt enim ab hoc longè diuerſum animal, Hæc ille in libro Latinè ſcripto de aquatilibus. Cæterum in Gallico libro Memorabilium obſeruationũ ſuarum alia etiam quædam de eodem animante tradit: quæ huc in Latinum ſermonem translata adijcere uiſum eſt. Ichneumonis catulos,inquit,ruſtici Alexandriæ in foro uendũt.aluntur enim in domibus, quoniã mures captant inſtar muſtelæ,& ſerpentes etiam quoslibet in cibo appetũt, paruum eſt animal,ſed mirè ſtudioſum puritatis.Primus à me Alexandriæ uiſus,inter ruinas arcis captam à ſe gallinam uorabat.Cautus & callidus eſt circa prædam.erigit enim ſe in pedes poſteriores, & cum prædã prope conſpexerit,tranquillo per humum corporis tractu ſe promouet,& impetu tandem in animal ſtrangulandum ſeſe iaculatur. Veſcitur autẽ indifferenter quibuſuis uiuentibus,limace,lacerto,chamæleonte,quouis ſerpẽte,rana,muribus,& alijs huiuſmodi. Aues in primis appetit,& præ cæteris gallinas ac pullos.Iratus pilos erigit,qui duplici in eo colore uiſuntur,nempe albicãtes uel ſubflaui per interualla,& leucophæi, duri & aſperi inſtar pili lupini.Corpus quàm feli longius & cõpactius eſt: roſtrum nigrum & acuminatum inſtar furonis dicti in genere muſtelarũ,abſq; barba. Auriculæ breues & rotundæ.Colore(forte in ſuperficie tantũ.nam alioqui duos diuerſos colores pilis eius paulò ante aſsignauit)leucophæus eſt, ad pallidum uel ſubflauum inclinãs,quemadmodum cercopitheci. Crura eius nigra ſunt,digiti quinq; in pedibus poſterioribus:quorum poſtremus ab interiore parte perbreuis eſt.cauda longa & craſſa ab ea parte qua lumbos attingit. lingua & dẽtes felis.Hoc ei peculiare,unde ſcriptores tam mares quàm fœminas concipere putauerunt, quòd meatũ peramplum habet undiq; pilis cinctum,extra meatũ excrementi, genitali muliebri nõ diſsimilẽ. quem quidem aperire ſolet in magno calore,clauſo interim excrementi loco & cauitatẽ aliquam admittente. Teſtes etiam ut feles habet. A uento admodũ ſibi timet. Animoſus & agilis eſt,ita ut magno etiam cani ſe opponere nõ dubitet,imprimis uerò catum ſi inuenerit,tribus dentiũ ictibus ſtrangulat. Et quoniam roſtrum ei nimis acutum eſt,ægre craſsiuſculũ aliquid mordere poteſt,& ne hominis quidem pugnum clauſum, Hucuſq; Bellonius. Miſit ad me aliquando Ant. Muſa Braſauolus muris Indici (ſic enim appellabat)effigiẽ,quam ego priuſquã ueram hanc à Bellonio publicatã uidiſſem,ichneumonis eſſe conijciebam.& roſtro quidem(ſi barbã adimas)& auriculis ferè conuenit:ſed differt cauda,qua felem magis refert,& alijs pluribus,quæ facile conferendo eſt obſeruare. Volui autem eam quoq; quam Braſauolus communicauit effigiem non omittere, quòd etſi ichneumonis non eſt, alterius tamen animalis ad uiuum expreſsi icon mihi uideatur.

MVS INDICVS.

HACTENVS inter alia,quadrupedum aliquot uiuiparum figuras atq; deſcriptiones ex doctiſsimi diligentiſsimiq; uiri PETRI BELLONII Cenomani,(cuius pulcherrimos circa animalium ſtirpiumq; illuſtrandam hiſtoriam conatus,Deus opt.max.fortunet atq; promoueat,)Cõmentarijs Gallicis Memorabilium obſeruationum ſuarum per diuerſas trium orbis partium peregrinationes,mutuari & in Latinum ſermonem quantũ eius potui transferre uolui. Nunc ex eiuſdem de Aquatilibus opere,Lutetiæ nuper accuratiſsimè edito(ex quo ſupra etiam de ichneumone ſcripſimus)de lupo marino & mure aquatico,& poſtea de ouiparis etiam nõnullis quadrupedibus, hiſtorias,& quorundam figuras pariter antehac nobis deſideratas, adſcribemus.

DE CASTORE.

CASTOR & fiber à Latinis dictus, Ariſtotelis latax eſt. Eius magnitudo, ruſticum mediocris notæ canem non excedit:pedibus tamen eſt breuioribus, neq; quatuor digitis à terra elatus,quorum anteriores caninis reſpondent,atq; ungulati ſunt:poſteriores, digitos oblongiores habent,latiore membrana intertextos,ut in palmipedibus, atq; adeò anſeribus uidemus,quibus in terra minimè ualet.Quamobrem ſuas cauernas non longè à litore ſeligit,è quibus exiliens, protinus in flumen aut mare ad conquirendum uictum immergitur. Vnde etiam ab Ariſto-

Fig. 3
CONRAD GESSNER, South American Coati labelled as 'Mus indicus', in *Historiae Animalium*, Zürich 1554, appendix, p. 22. Biodiversity Heritage Library. Contributed by Smithsonian Libraries. www.biodiversitylibrary.org

Fig. 4
ANONYMOUS, South American Coati labelled as 'Mus indicus', in an album with animal drawings compiled by Felix Platter, c. 1500-before 1555, p. 56 (detail). Watercolour, pasted onto sheets of paper. Allard Pierson, University of Amsterdam, HS. III C 23.

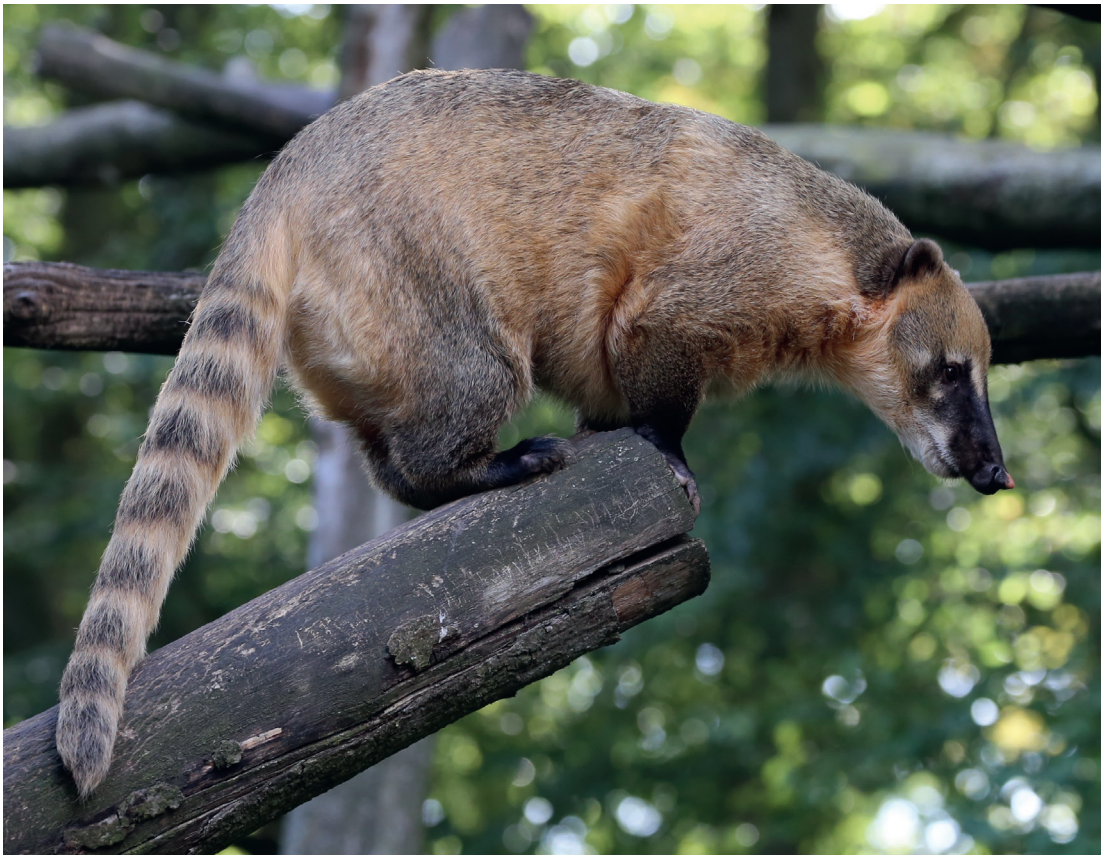

Fig. 5
South American Coati at Zoo Augsburg. Photo: Rufus46 via Wikimedia Commons

In contrast to this naturalistic image readily identifiable as a real-life species, the first 'coati' image defies such easy attribution. Having extensively researched coati iconography from both sides of the Atlantic, I have long been intrigued by the first illustration and its alleged identification as a coati.[9] Curious about what animal this image was supposed to depict, I began a quest to ascertain its origin and unearth its true identity.

De Boodt's Coati as a Copy

Well known is that many of De Boodt's illustrations in his albums were made not through direct observation of living animals or preserved specimens but rather copied from other contemporary sources. I therefore began my search with what I knew to be a likely source: illustrated works by his fellow court artist, Joris Hoefnagel (1542-1601).[10]

The image did not match any of the animal illustrations in Hoefnagel's four-volume compendium *The Four Elements* (c. 1575-80), while his own coati illustration in the *Animalia Quadrupedia et Reptilia (Terra)* volume is once again readily identifiable as such (fig. 6). However, a nearly identical creature shows up as a decorative element in one of Hoefnagel's pages in the *Mira Calligraphiae Monumenta* (fig. 7), created in 1591-96.

Although De Boodt's image appears to be a copy of the latter made by Hoefnagel, without a label it offers no additional clues to its origin or identity. While renowned for his highly naturalistic illustrations of flora and fauna that he had observed himself, Hoefnagel was also known to copy

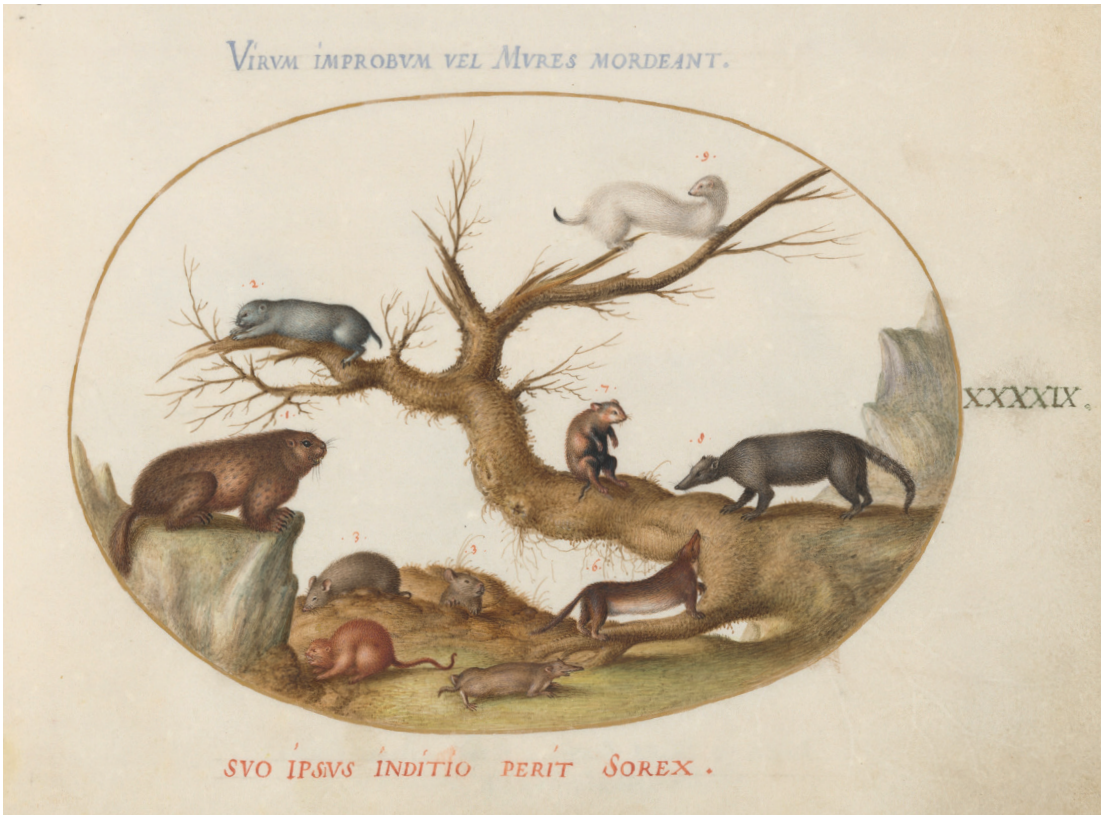

Fig. 6
JORIS HOEFNAGEL, Marmot, Hamsters, Rat, Field Mouse, Shrew, and a Coatimundi, in *Animalia Quadrupedia et Reptilia (Terra)*, 1575/80, plate 49. Watercolour and gouache, with oval border in gold, on vellum, approx. 143 x 184 mm. Washington (D.C.), National Gallery of Art, inv. no. 1987.20.6.50, gift of Mrs. Lessing J. Rosenwald.

images from pre-existing sources.[11] In the case of this particular image, I could only surmise that there had to be yet another, still unknown source from which Hoefnagel drew his inspiration.

Origin of Hoefnagel's Image

Through a stroke of good luck, I eventually stumbled across a single, loose-leaf illustration by the explorer and pastor Jean de Léry (1536-1613), hidden away in a manuscript collection in the Royal Archives in The Hague (fig. 8).[12] The leaf shows some of the animals De Léry encountered during his time as a missionary in Brazil in 1557-58, an experience he published in his 1578 book titled *History of a Voyage to the Land of Brazil, Also Called America*.[13] Included in this illustration is an animal that looks somewhat like the creature in the respective images of Hoefnagel and De Boodt – but more importantly, it is labelled as a 'Coati animal de Lamérique'. De Léry did not include this illustration in his *History*, which only gives a written description of the coati. The original leaf – part of a large collection of sixteenth- and seventeenth-century manuscripts purchased from a German collector – could plausibly have been held in the possession of the Habsburg court, where Hoefnagel might have seen it. The fact that a handwritten notation on De Boodt's illustration echoes De Léry's published description of the animal – 'the size of a hare, having a muzzle the length of a foot' – further suggests that De Léry may have been the original source of the image, subsequently transmitted through the work of Hoefnagel and De Boodt.[14]

However, this line of image transmission still leaves certain questions

unanswered, inviting further research. First and foremost, the fact that Hoefnagel's image is clearly related to the extant De Léry image, but not an exact copy, suggests there were one or more intermediary sources between them. Furthermore, if Hoefnagel's earlier image was unlabelled, how did De Boodt's image then come to be labelled as a coati? Was he perhaps also privy to De Léry's depiction? Or was there another labelled intermediary source? Did De Boodt have an opportunity to consult with Hoefnagel regarding his source for the image? Given that, up until his death in 1601, Hoefnagel remained in the emperor's service and De Boodt began assembling his albums in 1596, the two men could plausibly have been in direct communication with each other. Or did De Boodt (or whoever added the annotation) simply assume the animal was a coati, based on his limited knowledge thereof?[15]

Determining the Animal

By what means De Léry's 'coati' was transmitted to Hoefnagel and De Boodt remains an open question. The final matter of determining what kind of animal was actually depicted proved easier to answer. In his book, De Léry offers the following description of a 'coati':

> The other animal that I also want to speak about, called *coati* by the savages, is of the height of a big hare, with a short coat, sleek and dappled, and small, erect, pointed ears. Its head is not very large; its muzzle from the eyes down is more than a foot long, round as a stick, and suddenly narrowing, being no bigger high up than it is at the mouth (which is so small that you could scarcely put the tip of your little finger in it). This muzzle resembles the drone or the pipe of the bagpipe, and could hardly be more curious or more monstrous in shape. When this beast is caught, it holds all four feet tight together, and thus is always leaning over to one side or the other, or else it lets itself fall flat; you can't make it stand up, *and you can't make it eat anything except ants, which are what it ordinarily lives on in the woods* [my italics].[16]

Some parts of this description match the image: a short-coated, long-muzzled creature that appears to hold its four feet together as if its legs had been bound when captured. However, the animal De Léry describes here, of course, is a type of anteater, not a coati.[17] Brazil is home to three kinds of anteaters, but only one of these sports a muzzle measuring more than a foot in length: the Giant Anteater (*Myrmecophaga tridactyla*, fig. 9).[18] In fact, both anteaters and coatis are native to Brazil, so it is

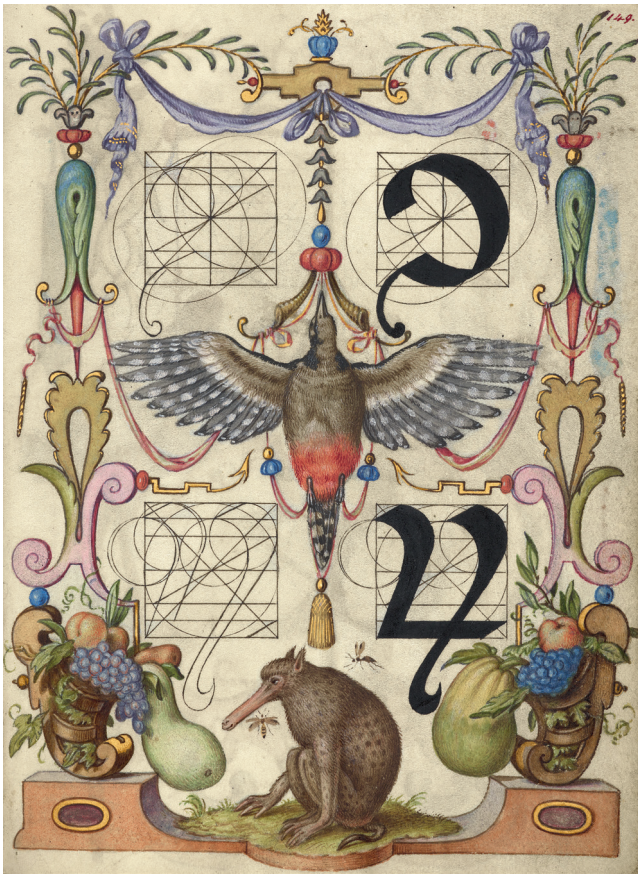

Fig. 7
JORIS HOEFNAGEL, 'Guide for Constructing the Tironian con and orum', in Joris Hoefnagel and Georg Bocskay, *Mira calligraphiae monumenta*, 1561-62 (calligraphy) and 1591-96 (illumination). Watercolour, gold and silver paint, ink, 166 x 124 mm. Los Angeles, J. Paul Getty Museum, inv. no. MS. 20 (86.MV.527), fol. 149.

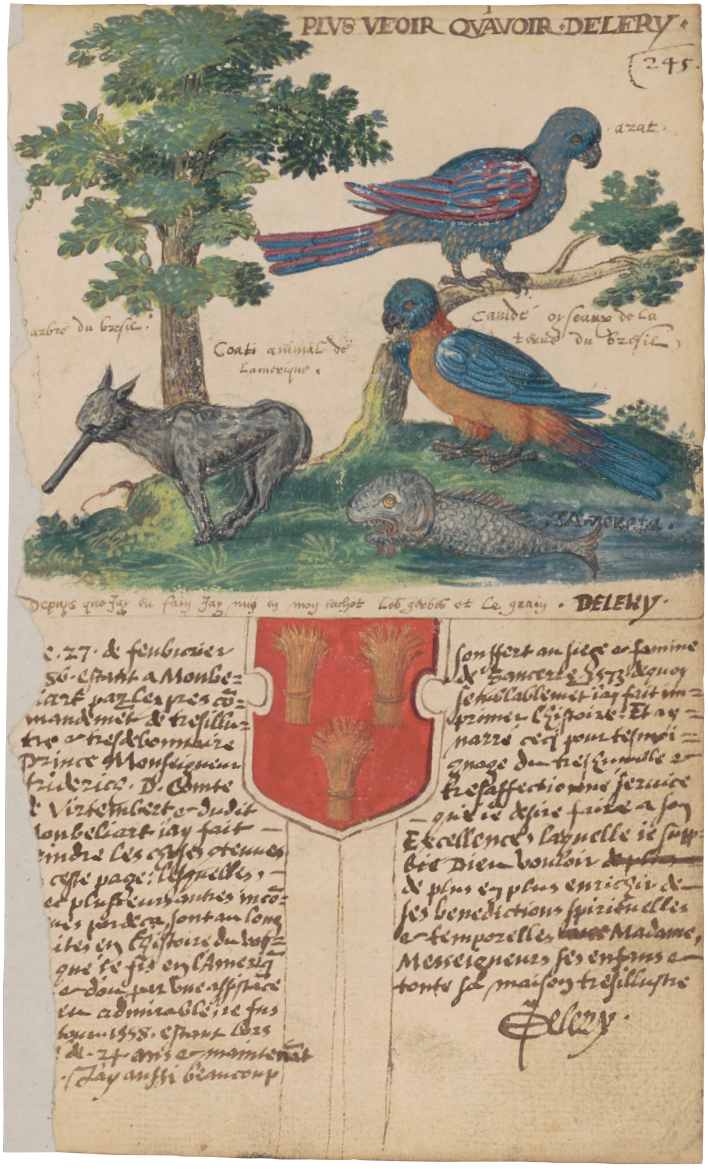

Fig. 8
JEAN DE LÉRY,
Loose illustrated leaf of notes titled 'Plus veoir qu'avoir delery', numbered 245, n.d.
Ink and watercolour on paper.
The Hague, Royal Collections, Archives: Manuscript Collection, 1st series, inv. no. 6015-4261.

possible that De Léry saw both while there, but later mixed up the Indigenous names he heard.

De Léry's personal account also offers some explanation for the inaccuracy of his illustration:

> Since all these animals are strangely defective with respect to those of our Europe, I would often ask a certain Jean Gardien, of our company, who was expert in the art of portraiture, to draw this one, as well as many others that are not only rare but even completely unknown over here; to my great regret, however, he was never willing to set himself to it.[19]

It seems that De Léry, not an artist himself, was well aware of his inability to draw an accurate picture of such an odd creature, the likes of which he had never seen before. But unable to persuade his more talented artist

friend to undertake the task, he did his best to sketch the strange animal himself. It was this mix-up involving the animal's name, combined with an amateur illustration, that was reported back to Europe and subsequently transmitted through multiple copies, ultimately ending up in the *Historia Naturalis*. And, because coatis are also mammals from Brazil with rather long snouts, the identification was acceptable enough to stand for centuries, however suspect it may have been.

Conclusion

The misidentified coati/anteater is but one of many mysteries in the Rijksmuseum's De Boodt albums on which a proper investigation under an informed zoological lens could shed new light. It is important to note that the multilingual taxonomic labels in these albums were not original; rather, they were added to the manuscript by an eighteenth-century cataloguer attempting to use contemporary natural history works to verify the identities of the illustrated species.[20] In our case, the illustrations were labelled according to or matching the original notes, so this is not the cause of the coati confusion. Unsurprisingly, however, a consequence is that some other animals in the collection have either incomplete or incorrect identifications and/or an obsolete taxonomy.

The present 'coati' has long been one of the most peculiar identifications in the entire collection. It is thus relevant to now have a probable explanation for how this image came to be identified as such, and what it was really meant to illustrate. Perhaps with continued research additional contemporary sources will surface, further illuminating the story of how Europeans repeatedly misidentified an anteater from Brazil as a coati. This, of course, also forms part of the larger picture, in which these illustrations serve as valuable records of the accumulation and transmission of knowledge about 'novel' animals of the Americas in sixteenth-century Europe, including the vital role this influx of new information played in the development of early modern zoology.

Fig. 9
Giant Anteater at Cotswold Wildlife Park. Photo: Vauxford via Wikimedia Commons

NOTES

* My sincere thanks to my fellow animal iconography researcher Fabienne Gallaire, whose expertise and feedback were invaluable during this search.

1 For the story of how this collection was discovered and subsequently transferred to the Rijksmuseum, see Jane Turner, 'The Wondrous Story of the De Boodt Albums', Rijksmuseum Research Services Department, 13 August 2019: https://theartofinformationblog.wordpress.com/2019/08/13/the-wondrous-story-of-the-de-boodt-albums/ (consulted 1 February 2025).

2 For De Boodt's quadruped albums (inv. nos. RP-T-BR-2017-1-1 and -2), see https://id.rijksmuseum.nl/200682421 and https://id.rijksmuseum.nl/200683117 respectively (consulted 1 February 2025). The Procyonidae is a mammal family endemic to the Americas, comprising coatis and raccoons as well as cacomistles, kinkajous, olingos, olinguitos and ringtails. Coatis were unknown to Europeans until after 1492.

3 'De zeer lange snuit of neus wijst echter op een ander, onbekend dier.' From the online collection description, see https://id.rijksmuseum.nl/200690941 (consulted 1 February 2025).

4 As documented by Carl von Linné (Linnaeus, 1707-1778) during his systemization of scientific taxonomy, *Cercopithecus brasilianus* was one of multiple Latin names previously used for the Common Marmoset; see Carl von Linné, *Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis*, Stockholm 1766 (twelfth edition), vol. 1, part 1, p. 27. In modern taxonomy, however, *Cercopithecidae* designates the 'Old World' monkey family, while *Cercopithecus* designates the Geunon genus of African monkeys.

5 Marie-Christiane Maselis, Arnout Balis and Roger H. Marijnissen, *The Albums of Anselmus de Boodt (1550-1632): Natural History Painting at the Court of Rudolph II in Prague,* Tielt 1999, p. 197.

6 From the Felix Platter (1536-1614) collection of drawings sent to Conrad Gessner for the *Historiae Animalium*. See Florike Egmond, 'A Collection within a Collection: Rediscovered Animal Drawings from the Collections of Conrad Gessner and Felix Platter', *Journal of the History of Collections* 25 (2013), no. 2, pp. 149-70, esp. pp. 159-60: https://doi.org/10.1093/jhc/fhs002 (consulted 1 February 2025).

7 For the visual record of coatis in early modern European collections, including evidence of a rare Mountain Coati (*Nasuella* spp.) in the Habsburg menagerie, see the online exhibit *Coatis in Early Modern European Menageries* on the Art History Animalia website: https://arthistoryanimalia.com/coatis-from-the-americas-to-europe-from-the-familiar-to-the-exotic/coatis-in-early-modern-european-menageries/ (consulted 1 February 2025).

8 See Florike Egmond, *Eye for Detail: Images of Plants and Animals in Art and Science, 1500-1630*, London 2017, p. 32. As Egmond observes, 'The making by hand of multiple copies of coloured images and the exchange of such plant and animal drawings were common among both aristocratic collectors and professional naturalists all over Europe. Consequently, lifelike drawings of exotic animals such as llamas, civets or coatis with leashes around their necks are no proof that the animals actually belonged to the collector's menagerie.'

9 The coati has a long history in Indigenous American visual culture as well as a presence in the post-1492 European visual record of 'New World' animals. Because there is a clearly defined biogeographical boundary (the Atlantic Ocean) and temporal point of contact (1492) from which to track the cross-cultural currents that ensued, images of such endemic American animals can be useful proxies for tracking the Columbian exchange and can show how both physical nature and ideas about the natural world were transported between the Americas and Europe. For a more in-depth discussion of this subject, see Deniz Martinez, 'Cross-cultural Currents and Syncretism in Early Modern Opossum Iconography', Saint Charles (MO) (master's thesis Lindenwood University) 2022, pp. 6-7, 67-70: https://digitalcommons.lindenwood.edu/theses/91 (consulted 1 February 2025).

10 Maselis et al. 1999 (note 5), Chapter 5.

11 See, for example, Joan Boychuk, 'Multo in Parvo: Joris Hoefnagel's Illuminations and the Gathered Practices of Central European Court Culture', Vancouver (dissertation University of British Columbia) 2016: https://open.library.ubc.ca/collections/ubctheses/24/items/1.0313419 (consulted 1 February 2025). Boychuk observes that Hoefnagel's natural history illustrations drew from a combination of both pre-existing models and his own empirical observations (the latter being especially true with regards to illustrations of insects and other invertebrates).

12 The collection of manuscripts was purchased by Prince Alexander van Oranje-Nassau (1851-1884) in 1882 from the German bookseller and collector Theodor Oswald Weigel, according to https://www.koninklijkeverzamelingen.nl/archief/g/g015?active-item=g015-xxxva (consulted 15 February 2025).

13 Jean de Léry, *History of a Voyage to the Land of Brazil, Also Called America …*, Berkeley 1993 (transl. Janet Whatley).

14 'magnifudine leporis, rostrum habens pedis longitudine' as seen in fig. 1; for the matching text by De Léry, see note 16.

15 All these questions need to be considered in the context of more general studies into image transmission, such as Sachiko Kusukawa and Ian Maclean (eds.), *Transmitting Knowledge: Words, Images, and Instruments in Early Modern Europe*, Oxford 2006; Wolfgang Lefèvre, Jürgen Renn and Urs Schoepflin, *The Power of Images in Early Modern Science*, Basel/Boston/Birkhäuser 2003. Florike Egmond and Sachiko Kusukawa researched the existence of copies of animal drawings in 'Circulation of Images and Graphic Practices in Renaissance Natural History: The Example of Conrad Gessner', *Gesnerus* 73 (2016), no. 1, pp. 29-72.

16 De Léry 1993 (note 13) as translated by Whatley, p. 85.

17 De Léry is describing a myrmecophagous animal; that is, specialized to feed on ants and termites, like the American anteaters. Coatis, however, are generalist omnivores.

18 The other species are the tiny Silky Anteaters (*Cyclopes* spp.) and the mid-sized Tamanduas (*Tamandua* spp.). While Whatley suggests De Léry was describing the latter, his vivid description of the foot-long snout instead suggests the large Giant Anteater, as does the grey and black colouration he gave his illustration.

19 De Léry 1993 (note 13) as translated by Whatley, p. 85.

20 See, for example, the introduction in the first album on quadrupeds added in 1809-14, in which the cataloguer Joseph van Huerne describes consulting the works of Comte de Buffon and other eighteenth-century references (inv. no. RP-T-BR-2017-1-1-99(R)): https://id.rijksmuseum.nl/200690981 (consulted 1 February 2025).