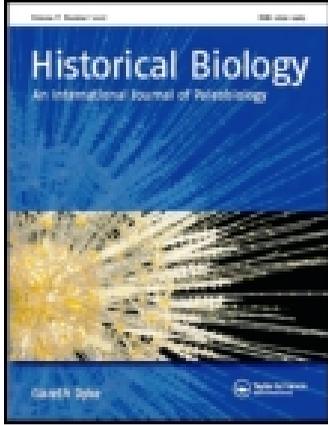


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## The dodo, the deer and a 1647 voyage to Japan

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More has been written about the iconic Dodo *Raphus cucullatus* of Mauritius than any other extinct bird, yet despite its familiarity, only a few specimens were exported from Mauritius; individual birds reached Europe alive in 1626 and 1638 and at least two survived a journey to India in 1625. There are also vague records of other exported birds. Here, we provide confirmation based on seventeenth century documents that a live Dodo was sent to Japan in 1647, the last known captive bird, and comment on the details of its long and arduous voyage.

**Keywords:** Dodo *Raphus cucullatus*; Mauritius; Dutch East India Company; Dagregister; Deshima

### Introduction

The isolated Mascarene Island of Mauritius, situated in the southwestern Indian Ocean, was once home to the Dodo *Raphus cucullatus*, an extinct giant ground pigeon that was exterminated in the seventeenth century due to anthropogenic activities (Cheke and Hume 2008). Much has been written about this iconic bird and the reasons for its extinction, but almost no details were recorded about its ecology (Hume 2006). The scant information that survives from this period stems from inadequate accounts, a series of seventeenth century drawings and paintings, which may or may not have been based on specimens, and a few desiccated body parts. The Dutch occupied Mauritius, on and off, for over a century, and during this time some dodos were transported alive to the west and to the east (Moree 1998). As few as two may have reached European shores (Hume 2006), and one of these, an individual kept at the back of a shop in a London street in 1638 (Strickland and Melville 1848), was the last unequivocally recorded specimen in Europe. At least two others survived the journey east, where one was depicted alive in the menagerie of the Mogul Emperor Jahangir in Surat, India in 1625 (Iwanow 1958). Nothing more can be said about these captive birds. A few other dodos may have been exported (see Hume 2006), but supporting details are lacking. One was sent to Japan in 1647, which was briefly mentioned in Millies (1848, p. 19 see below), and repeated in Hachisuka (1953, p. 59), but little else was reported about the bird or its journey.

A century of human interference on Mauritius resulted in the extinction of the dodo, but the precise date of its demise has been a matter of conjecture, with scientific authorities variously suggesting c. 1638 (Mlíkovský 2004), 1662 (Cheke 2006), or survival until at least the

1680s (Roberts and Solow 2003; Hume et al. 2004; Jackson 2013).

Here, we present details from the original documents about a live dodo that was sent to Japan in August 1647. We suggest the probable ship on which the dodo was transported, the possible route that it took from Mauritius to Japan, and the reasons why it was transported. These documents provide irrefutable evidence that dodos were still extant on Mauritius in 1647 (contra Mlíkovský 2004), and despite the dodo's rarity, a white deer and a bezoar stone (termed 'pedropork' in Dutch) were considered of equal but priceless value.

### Dutch on Mauritius

Mauritius was first observed by the Dutch on 18 September 1598, and after sending a number of exploring expeditions ashore, named it in honour of Prince Maurits of Nassau; they remained on the island until 2 October (Moree 1998). On 20 September, the experienced pilot and seafarer Heyndrick Dirrecks Jolinck, after leading a party of men along the coast to find a suitable port for the fleet, records seeing dodos for the first time at Vieux Grand Port on the southeast coast (Barnwell 1948; Moree 1998). Mauritius was initially used as a refreshment station, before becoming an official settlement after the building of Fort Frederik Hendrik in 1638 (Floore and Jayasena 2010), and later a colony; the Dutch maintained a presence on the island almost continually until 1710 (Moree 1998). For the first decade or so, Dutch ships under the Dutch East India Company (VOC) regularly stopped at Mauritius when travelling to and from East Asia to refurbish their ships and collect fresh game and water (Moree 1998; Sleigh 2000). They established key

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trading posts at a number of locations including Cape Town, South Africa, Colombo, Sri Lanka, Bengal, India, Batavia (now Jakarta) in Java, Tayouan (now Anping) in Formosa (now Taiwan), Macau in China, and at Deshima (Dejima, in Japanese), an artificial island off Nagasaki, Japan. After the Dutch began using the more economical Brouwer Route to cross the Indian Ocean (Sleigh 2000), Mauritius became an isolated outpost commanding little interest from the Dutch homelands (Sleigh 2000; Floore and Jayasena 2010); it was abandoned in 1658. With the ever-increasing presence of British and French trading ships in the southwest Indian Ocean, the Dutch re-occupied Mauritius in 1664, but permanently abandoned the island in 1710 (Moree 1998; Sleigh 2000; Floore and Jayasena 2010). The vast ebony forests were exploited during occupation, and the various Dutch commanders on Mauritius were ordered by the VOC to provide shiploads of ebony and other goods to visiting Dutch ships (Moree 1998).

### Jacob van der Meersch 1645–1648

During the command of Jacob van der Meersch on Mauritius from 1645 to 1648, the trade in ebony wood was well established. The first road was built during this period and the Dutch had overcome the difficulties of getting the heavy ebony wood from inland (mainly Flacq in the east) to the coast (Moree 1998), especially as coastal forests had by now been depleted. Ships from Batavia called at Mauritius to pick up ebony and slaves (bought in Madagascar), for transportation back to Batavia. The main activity under Van der Meersch's rule was the cutting of timber, so as less time was spent on agriculture, there was not enough food produced on the island for the approximately 140 inhabitants (Heeringa 1895). The ships that came from Batavia carried rice and probably other victuals to supply the colony, and it is very likely that the Dodo (and possibly other endemic species) were transported to Batavia with these ships. The animals were considered commercial ware, or were kept alive at VOC premises to be given later as presents to the Dutch Stadtholders (Schweitzer 1931), or to the Japanese shogun (this paper).

In 1647, a captive dodo was sent alive to Batavia from Mauritius at the request of the VOC, presumably by van der Meersch, to be kept in store as a gift. It was joined by a white deer (Millies 1848; see below), most likely a female Sika Deer *Cervus nippon*, and a bezoar stone.

### Dutch ships at Mauritius, 1647

Three ships visited Mauritius during early 1647, so any of these could have transported the dodo to Batavia.

However, crucial timings suggest that there is only one possible candidate. The dagregister (see below), in which daily records were made, states that it was the *Jonge Prins* that sailed to Tayouan, Formosa, from Batavia sometime in early July carrying the Dodo. The *Witte Valk* and the *Zalm* both sailed from Batavia to Mauritius and back again, but they returned to Batavia after July 1647, which was too late to catch the departure of the *Jonge Prins*. Only the Dutch trading ship and sister ship to the *Jonge Prins*, the *Post*, which sailed from Wielingen, Zeeland, in July 1646 and arrived at Mauritius on 2 January 1647, could have made the rendezvous. The *Post* was one of the six ships which sailed that year at the request of the VOC Chamber of Zeeland ([www.vocsite.nl](http://www.vocsite.nl) 2013), and it appears that individual ships from the fleet departed at different times. The *Post* left the Netherlands in July 1646, whereas the *Jonge Prins* left the Zeeland wharf 3 months later, but did not stop off at Mauritius ([www.historici.nl/Onderzoek/Projecten/DAS](http://www.historici.nl/Onderzoek/Projecten/DAS) 2013). The *Post* carried a 'missive' from the Heren XVII, a body of 17 directors representing different Dutch chambers (Ricklefs 1991), inquiring about the progress of ebony cutting on Mauritius, and departed from Mauritius for Batavia on 18 January, arriving there 4 April 1647.

We believe that the *Post* was the ship that carried the dodo from Mauritius to Batavia, but it is of course possible that the specimen was transported in 1646 or even earlier, because with proper care, the individual could have been kept alive in captivity for a considerable period of time. That live dodos survived the arduous and lengthy voyages, both east and west, is certainly a testament to their endurance and adaptability.

### Willem Verstegen

Willem Verstegen was the commander of the Dutch factory at Deshima, Nagasaki, and wrote the daily journal (dagregister) at the time the Dodo arrived (Figures 1 and 2), whereas his successor, Frederick Coyett, arrived on the same ship as the bird. A letter written to Verstegen on 25 July 1647, from the Governor-General of Batavia (Millies 1848, p. 19), stated:

We do not have any foreign beasts at this time, so please accept, as a token of our affection, a white deer whose partner a male has died recently, together with a dodo bird from the Island of Mauritius. [translation by JPH]

This proves that the dodo had made it alive from Mauritius to Batavia, and was now being prepared for shipment to Tayouan, Formosa, and on to Deshima.

Based on this evidence, we believe that the governor of Batavia sent the deer and the dodo to Verstegen as a 'token of affection', and that Verstegen was free to choose what to do with them.

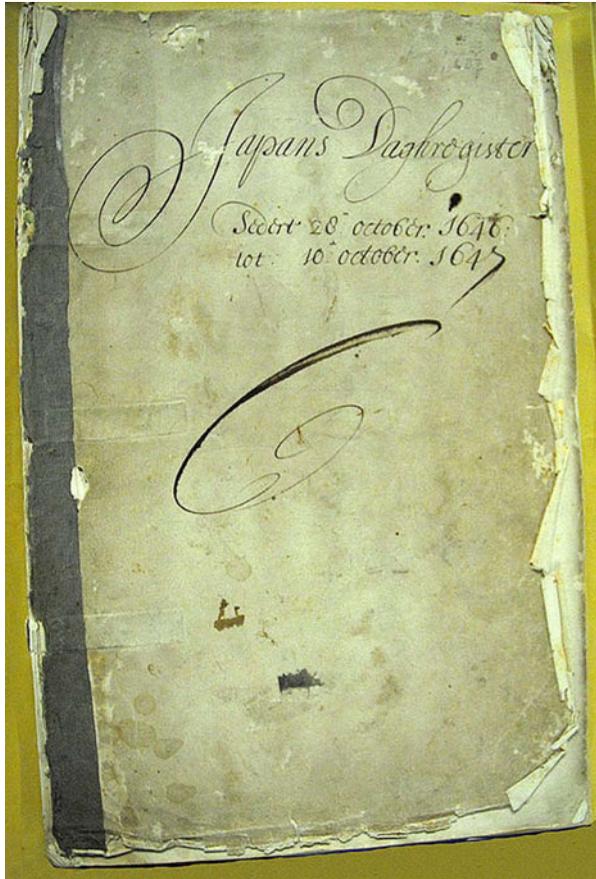


Figure 1. (Colour online) The front cover of the Japan daghregister, which includes notes on the dodo written by Willem Verstegen in 1647. With kind permission of the Dutch National Archives, The Hague.

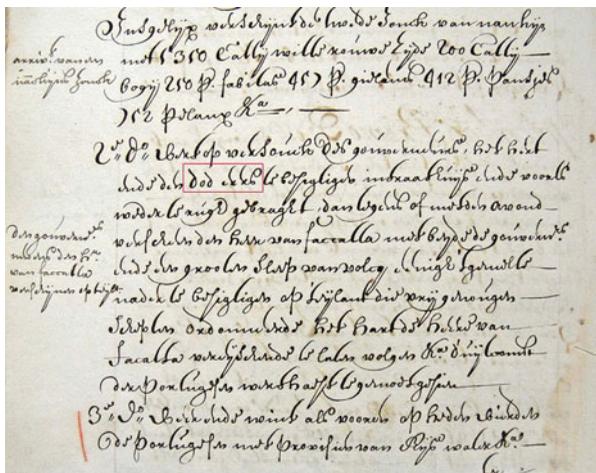


Figure 2. (Colour online) The hand written entry for 2 September, 1647 by Willem Verstegen, in which the dodo (highlighted in rectangle) and the deer were taken ashore for viewing by the Japanese Lord of Hakata (NL-HaNA 10214 no. 60 Daghregister). With kind permission of the Dutch National Archives, The Hague.

**Extracts from the Dutch daily journals (daghregister), ship cargo and warehouse stock**

We present the parts of the journal that discuss the dodo and provide documentation of the ship’s cargo in which the Dodo, the deer and the bezoar are listed (Figure 3). The warehouse stock (ashore on Deshima) is also included (Figure 4). The journal accounts are listed chronologically, with our translations reproduced as abbreviations and those from a published English translation by the Universiteit Leiden (see Vialle and Blusse 2001) of the daghregister in quotes. As some information is lacking, we can only speculate about some of the events that took place.

1647

29 August

The *Jonge Prins* is seen at the bay of Deshima. On board is the successor of Willem Verstegen, Frederik Coyett, who was sent to relieve Verstegen of his post as the commander of the Dutch factory. Coyett sends a note to Verstegen saying that he left Batavia with the *Jonge Prins* ([www.historici.nl/retroboeken/taiwan](http://www.historici.nl/retroboeken/taiwan) 2013, p. 587) on 12 July in the company of the ship the *Os*, which had arrived in Tayouan on the 7 August. The *Jonge Prins* left the port of Formosa on the 17th for Deshima ([www.historici.nl/retroboeken/taiwan](http://www.historici.nl/retroboeken/taiwan) 2013). The daghregister of Kasteel Zeelandia, Taiwan, reports a noteworthy event on 17 August. It states that, at first, there was a favourable wind, but later on that day the *Jonge Prins* was forced to throw anchor at the northern reef of Formosa, because of a sudden storm. On the 18th, it was still there because it was spotted by a Chinese ship, from which a rumour had been spread that they saw the rudder of the *Jonge Prins* floating

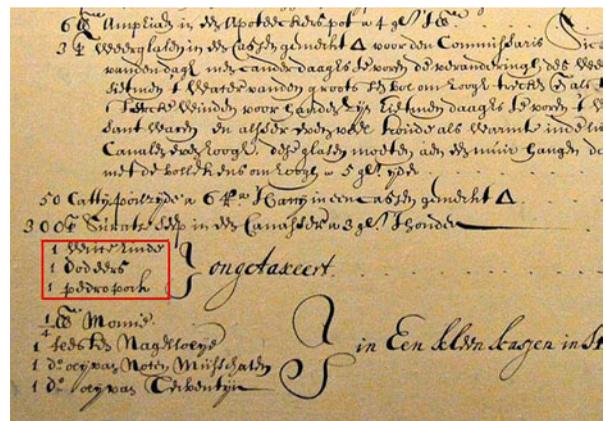


Figure 3. (Colour online) The dodo, deer and bezoar (highlighted in rectangle) (1 witte hinde, 1 dodeers, 1 pedepork (bezoar)) are listed together as being ‘unvalued’ (NL-HaNA 1.02.14 no.771 Ontvangen-facturen 1647). With kind permission of the Dutch National Archives, The Hague.

The image shows a page from a handwritten Dutch book-keeping journal. The text is written in Dutch and includes a list of goods. Two items are highlighted with a red rectangle: '1.5 dodo' and '1.5 deer'. The journal also lists other goods like 'bezoar stone', 'prunes', 'almonds', and 'caskets of ink'. The page is numbered '20' and has a date '29 August 1642' at the top.

Figure 4. (Colour online) The book-keeping journal of the warehouse on Deshima, with the dodo and deer (highlighted in rectangle). There are 18 other products listed, including the bezoar stone, and all products are without a price. They include prunes, almonds and caskets of ink. The separate listing of the dodo and deer may be indicative of their rarity (NL-HaNA 10214 no. 847 bookkeeping-journal-warehouse). With kind permission of the Dutch National Archives, The Hague.

in the water. As no further mention is made about the event after the 18th in Taiwan's daghregister, the *Jonge Prins* must have set sail on the 18th or 19th.

Verstegen sent interpreters to the local Japanese governor to ask permission for Coyett to come ashore, but the governor was too busy to receive him. Later that evening, the governor's messenger came to apologise, giving permission for Coyett to come ashore the next morning. Verstegen sends a note to Coyett to inform him about the news.

### 30 August

The Japanese governor and Coyett are being transported to the *Jonge Prins* to welcome Coyett and also to muster the crew. Coyett comes ashore with them. The *Jonge Prins* remains outside the bay and awaits further orders.

I sent the burgemeester and the interpreters to Commissioner Chikugo-no-kami and Gonpachiro to welcome them on our behalf. They expressed their sympathy for us and said that the Dutch are very sincere people. They asked after our well-being and congratulated me on the arrival of our ships and the new captain. [From the English translation of the daghregister]

Verstegen also mentions that the *Jonge Prins* brought an excellent cargo from Batavia and Tayouan consisting mainly of European goods and other wares worth a total of 221,263 guilders [10 guilders worth one English pound in 1642 (Denzel 2010)].

### 31 August

Verstegen was told that the *Jonge Prins* could enter the bay in 2 or 3 days.

## 1 September

On behalf of the governor, Hachizaemon asked us if we would unload the ship outside the bay, as the Chinese also did, because she might have to remain there for a few more days. I discussed it with the council of the factory. It will put us to great expense and will put the goods in danger of getting wet, breaking, being stolen and such (sic), the more so because our sampans are unsuitable and only large vessels could be employed at high tide. Having taken all this in consideration, we decided to present the governor politely with the alternative that if there was any hope that the ship could enter the bay within four or five days we would rather wait, for we would need at least four or five days. Otherwise we would accept the governor's council. His reply was that we would wait for two or three days. He allowed Coyett to bring his chest of belongings on shore and also the livestock [including the dodo, see below]. [From the English translation of the daghregister]

## 2 September

At the request of the governor, the deer and the dodo were taken to the council house to be viewed and then brought back. Then, in the evening, the Lord of Hakata, both governors and a whole gang of subjects appeared on the island to view the aforesaid.

It was to be registered in the cash ledger that the deer was going to the Lord of Hakata [Translation by RW from the original Dutch handwritten daghregister (Figure 2)].

## 3 September

The *Jonge Prins* was towed with five boats into the bay.

## 5 September

The *Jonge Prins* is being unloaded.

## 6 September

Today the large globe was shown to Chikugo-no-kami. He was more than pleased but sent it back for the mean time. All the rarities were locked away in the warehouses. The governor had instructed the burgemeester and the bongiois [interpreters or guards] to do so without my knowledge. This is to prevent Chikugo-no-kami from seeing the rarities, although some have been sent specially for him. In short, there is great envy among the officials. The Lord of Hakata, whom the governor allowed to have the white deer asked for the price of it. I expressed my gratitude for his courtesy in aiding us with the towing boats and the other favours he extended to us during our return from the court journey. I only wished for an opportunity to oblige him. This deer was a mere trifle. He would not accept it as a gift, thus, with the approval of the burgemeester and the interpreters I charged him four mas and three cantareen [traditional measurements of weight in East Asia]. [From the English translation of the daghregister]

**7 September**

I went with Coyett to the ship, where we inspected all the books and the papers. The crew was given instructions on how to behave. Chikugo-no-kami sent for the large globe. The interpreter asked the governor if he could also have a parrot. The governor allowed this, but he excused the telescope for the time being, although Chikugo-no-kami was very desirous to have it, by saying he did not know in which warehouse it had been stored. The governor ordered the interpreter to tell His Excellency when he handed him the parrot that some animals could be sold. If he did not order the governor to keep them for the Shogun, he could take them for himself. He sent the parrot back for the time being and said he would wait. [From the English translation of the daghregister]

**8 September**

On the order of the governor the parrot and some other birds were handed to Matsudaira Oki-no-kami, who is a blood relative of the Shogun and lord of the four provinces of the island of Shikoku. Many other lords departed. [From the English translation of the daghregister]

**11 September**

Chikugo-no-kami's secretary came to visit with his son and subjects. He wished Verstegen a good voyage home and Coyett a good journey to the court in Edo.

**14 September**

Verstegen was told that the next morning they could open the warehouses and that the trade could start.

**15 September**

The governor's noblemen came and the warehouses were opened. The white pancada silk and the rayskins will be inspected later. Some rarities and the objects Chikugo-no-kami has ordered were also unpacked and inspected. The interpreter made a note of them. The Shogun's youngest son has died. The town is in mourning. [From the English translation of the daghregister]

**16 September**

We made preparations for the first sale. Chikugo-no-kami apologised for bothering us every day but it was on behalf of the Shogun and requested we send him the rarities and the requested object. They were sent to him before the governors had inspected them, who, out of envy might keep one of the rugs, the camlets and the Roman cloth before returning the rest so that they could also capture the Shogun's favour by presenting him with something rare, without the knowledge of Chikugo-no-kami. [From the English translation of the daghregister]

**18 September**

Chikugo-no-kami sent for many objects and inspected them. The world maps, the copper horses and other things assigned as presents for the Shogun were rejected, because according to the interpreter, Japan would look too small compared to the rest of the world in the eyes of the Shogun. [From the English translation of the daghregister]

**3 November**

Willem Verstegen leaves Deshima and Frederic Coyett takes over the daghregister.

Coyett has to get ready for the annual court journey to Edo [see below], where he arrives on 3 December.

**Priceless commodities**

It is apparent from the daghregister that the dodo and deer were rare items. Bezoar stones were regularly sold, but the offerings of a white deer and dodo was an extremely rare event. They were listed separately in the book keeping ledgers (Figures 3 and 4), and the items that could not be given a value, for whatever reason, were registered as 'unvalued' (ongetaxeed) (Figure 3). Keeping good trading relations with trading partners was essential, especially as the Dutch had a complete trading monopoly via Deshima with the Japanese (Ames 2008). The Dutch sold their imported goods to the Japanese (or used them as gifts), and in return they bought Japanese products; thus the trade was of benefit to both countries.

For this reason, we believe that the listing of the dodo and the deer as 'unvalued' was in reference to them being of such rarity and of such high gift potential that they were in fact a priceless commodity.

**Discussion**

It was extremely important for the governors and commanders of the Dutch VOC to present gifts to kings, emperors, shoguns, lords and high-ranking officials (van Gelder 1994). It helped cement-trading relationships and to keep political alliances alive, and the rarer the gift, the greater respect the company would receive. For example, the above-mentioned annual court journey to the Shogun in Edo, which involved 2 months travel overland and by river in the middle of winter, was undertaken in part to present rare animals and birds as gifts. Some of these gifts are registered in the daily journals and it appears that birds like cockatoos and cassowaries *Casuaris* sp. made it there alive. The daghregister for 7 September 1647, states that parrots were also presented as gifts. These birds were sought after as cage birds, so there is a distinct possibility that living examples of endemic Mauritian parrots, of which two out of three are now

extinct (Hume 2007; Winters 2011), were transported along with the dodo. Unfortunately, there is no description of the parrot involved, but it remains a tantalising thought that the Dodo was accompanied by another Mauritian bird species.

It is important to note that the dodo's name was supposedly transferred to another unrelated, but equally flightless endemic Mauritian bird, the Red Rail *Aphanapteryx bonasia*, after the Dodo had become extinct (see Cheke and Hume 2008 and references therein). If this was the case, it is possible that the Dodo mentioned in the daghregister may have been a rail, which would support a c. 1638 extinction of the Dodo (Mlíkovský 2004). However, the chicken-sized red rail was common on Mauritius until the introduction of cats in the 1690s (Hume and Walters 2012); therefore it was unlikely to have been considered a priceless rarity in 1647.

The importance of a white deer in Japanese culture explains the significance of this animal as a precious and rare gift. In Shinto, the spiritual belief of 80–90% of the Japanese population, a deer is considered a messenger of the gods (Littleton 2002), so a white individual must have been of particular cultural importance.

The bezoar stone was also considered a rarity, and as only one was listed as 'unvalued' (Figure 3) it is not unreasonable to assume that it must have been a significant specimen, perhaps in its size or particular texture. In general, bezoar stones are hard masses formed in the stomach or digestive tract of an animal after it eats an indigestible substance (Borschberg 2010); those of wild goats such as ibex were especially important for use in alchemy (ibid). Dodos were known to have a single, large gizzard stone (gastrolith), the bird equivalent of a bezoar that occurred in the ventriculus or gizzard, which was used by early mariners for sharpening tools (Clusius 1605; Müller 1773). Could the rare bezoar stone listed in the daghregister belong to a dodo? If a living example of a dodo was shipped from Mauritius in 1647, it is just as likely that a dodo 'bezoar' stone could have been sent from there as well.

The tiny island of Deshima off Nagasaki was an important trading post and the only one from which the Dutch, and no other European Nation, were allowed to trade directly with Japan (Ames 2008). The daghregister also states that Deshima had a multitude of bosses, and that the interpreters also had specific roles other than just interpretation. The trading post and its hierarchy were obviously very complex and steeped in tradition. On 1 September 1647, it appears that the animals on board, including the dodo, were brought ashore to the warehouse on Deshima. The Inventory number 847 in archive I.04.21 of the National Archive, The Hague, shows a list of products and objects received into the warehouse ([www.historici.nl](http://www.historici.nl) 2013) (Figure 4). The Dodo is among them. The date is recorded as 29 August, but this may have been

an error by the warehouse master, because he probably started writing this page in the journal on the day the ship was first sighted, which was 29 August. The white deer and the dodo were taken from the warehouse to the council house and, after the governor saw them, were taken back. Later that evening, the white deer and the dodo were sent to a spot somewhere on the island in order for the Lord of Hakata and his followers to see them.

It appears, that as a token gesture, the white deer was subsequently sold to the Lord of Hakata, who had decided to make the purchase immediately after the viewing on 2 September, but the fate of the Dodo is not known. It may have also been sold or presented as a gift, or have made the journey to the court in Edo, but equally it may have been returned to the warehouse, or even died. Unless documentary evidence survives that records its presence in Japan, the fate of the last recorded captive Dodo will never be known.

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