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Published in:
Endeavour

Document Version:
Peer reviewed version

Queen's University Belfast - Research Portal:
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Crozier’s penguin: an object history of maritime and museum science

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I first encountered the object that lies behind this paper tucked away in a corner of the newly re-furbished Ulster Museum. The immature emperor penguin, first prepared for display in 1844, now stands as a testimony to the importance of taxonomy. It was, as the display panel notes, one of several specimens collected during the British Antarctic Expedition and donated to the Belfast Museum by the second in command, Captain Francis Crozier, late in 1843. Crozier’s specimen was among a larger collection of emperor penguins gathered during the three austral summers that the HMS *Erebus* and *Terror* explored the largely un-charted edge of Antarctica. Some of the well-preserved specimens made it possible for George Robert Gray, assistant keeper of birds at the British Museum, to distinguish for the first time between the King and the Emperor Penguin, giving the latter the scientific name *Aptenodytes forsteri*.¹ Gray’s brief published account was based on one or more adult specimens. The juvenile that found its way to the Belfast Museum was of less relevance to the task of distinguishing between two species of penguin which, up to that point, had been conflated. Its importance lies elsewhere.

The Ulster Museum specimen bears traces of the ostensibly global enterprise of circumpolar exploration and the more provincial, if not parochial, practices of a regional museum. Here it is approached as an entry point into two rather different, but overlapping, spaces of scientific inquiry – the re-fitted naval vessel and the museum.

**Penguins, naval culture and expeditionary science**

In 30 September 1839, two naval ‘bomb’ vessels, adapted for polar exploration, set sail from Margate bound for the Antarctic. The official purpose of the voyage was scientific, primarily geomagnetic. The discovery of the south magnetic pole was a major aim, along with setting up several observatories on various oceanic and sub-Antarctic islands. Natural historical objectives were also important. Joseph Hooker, assistant surgeon on HMS *Erebus* was charged with describing and collecting botanical specimens encountered on the voyage. Robert McCormick, surgeon on the

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Erebus was responsible for geology and zoology. James Clark Ross, the commander of the expedition, was also deemed a competent scientific observer. His second in command, Captain Francis Crozier, was recognized as an expert in geo-magnetic survey. All were involved to a greater or lesser extent in amassing specimens of natural history.

The emperor or ‘great penguin,’ as those on board knew it, was among the most discussed species that the voyagers encountered. Indeed, it became a kind of totem object, reflecting and mediating the voyage’s complex relations with the Antarctic. As has been noted by others, penguins assumed the role of indigenes in the unpopulated territory encountered by expeditions to the Antarctic in the early nineteenth century. The penguin populations were frequently presented as martial in appearance and behaviour and they became, in the unpublished and published narratives of the voyages, a sign of the apparent ease with which the ice-locked land of the Antarctic could be added to a nation’s territorial possessions.

The emperor penguin in particular was presented as a mock threat to the expedition’s aims. On one occasion Robert McCormick set after a ‘great penguin’ on the ice, ‘shooting him through the centre of the body with a ball from my old double-barrel [but] he displayed as much strength and energy as if he had only been struck by a few grains of small shot’. When they were captured and frog marched on board, the difficulty of then killing them was also noted on a number of occasions. It became a kind of sport for the sailors who chased them around the decks with bludgeons to secure supper (penguins were an important source of food supplementing supplies. They apparently made a reasonable soup). Bludgeoning penguins did not always work and, after some experimentation, it was decided that the best method for killing individuals marked for scientific investigation was administering hydrocyanic acid. According to McCormick, one dram of diluted acid killed a great penguin in less than two minutes.

The parodic militancy of emperor penguins was given dramatic form in a play put on by the Royal Victoria Theatre in Hobart, Van Diemen’s Land, when the two ships overwintered there in 1841. In the nautical melodrama, bellicose emperor penguins standing five foot tall attacked the crew of the Terror and Erebus. The final

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scene had the figure of Britannia predicting the end of the British empire, and the rise of ‘Tasmania’ as the new Britain of the southern hemisphere. The penguins were staged as the foot soldiers of a new empire that would undermine the confident imperial trajectory of the Antarctic expedition. The use of farce made an otherwise subversive political point appear ludicrous. The members of the crew who watched the play with enjoyment could not be accused of conspiring with sedition. Yet, as Elizabeth Leane has argued, under the guise of comedy and farce, the play did contain undercurrents of seditious settler politics. The drama could be read as a critique of the current governor, the arctic explorer and friend of Ross, Sir John Franklin who was then under considerable political pressure and left the colony a little over a year later. It was notable that Captains Ross and Crozier did not attend the performance.

Whatever the underlying politics of staging menacing emperor penguins, for at least senior members of the crew, they remained a comforting presence in the face of the threat of an unruly crew while at sea. The latter were kept in check through the conventions of naval discipline, which included corporal punishment. On a number of occasions, 48 lashes were meted out for theft. The threat was enough to cause one crew member to jump overboard into a heavy sea. Penguins, however difficult to kill, were easier to discipline and any member of the crew could join in the sport of beating them with a bludgeon.

On board the two vessels, then, the emperor penguin played various roles – object of sport, nourishment, entertainment and a symbol that helped mediate relations between officers and crew and between the voyage and its publics. But perhaps more than anything else, the emperor penguin became an indicator of the scientific success of the expedition. During the voyage there was some awareness that the ‘great penguin’ had not yet been scientifically described. Rectifying that was certainly high on the agenda of at least some of the officers on board. Robert McCormick, sometimes misrepresented as gun happy, decried the killing of penguins.

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6 See, for example, Hobart Town Colonial Times, 4 May 1841, p. 2.
for anything other than essential food or for the cause of science. McCormick followed the conventions of early-nineteenth-century natural theology in describing the emperor penguins as a striking example of beauty in the natural world, a sign of the work of a benevolent creator. As such, they demanded both protection and close scientific scrutiny.

Scientific interest in the emperor penguin could, however, clash with other naval priorities. At about 9pm on 27th January 1842, Robert McCormick, surgeon on board HMS Erebus, spotted two large penguins, ‘apparently a new species,’ on a piece of ice. As he later described it, he was

very naturally desirous of securing them for the government collection, and asked for a boat to go and capture them; but, unluckily for me, Captain Ross being on board the Terror at the time, our automaton first lieutenant, whose prestige, if he has any at all, is more for holy-stoning decks in his morning watch than in the paths of science, did not deem them worth the trouble of lowering a boat for. Fortunately for the Terror's credit, his brother-officer in that ship, Lieutenant McMurdo, thought differently, and had a boat manned, and a chase on the ice. Both the birds were secured, when they turned out to be the young of the great penguin, still in their grey, immature plumage, and as such a highly interesting addition to the ornithological collection. One weighed thirty-seven and the other thirty-five pounds.

It was an episode like this that was captured by Joseph Hooker and included in the published account of the voyage [FIGURE 1]. Sergeant William Cunningham, who had later secured the two immature penguins in a similar fashion, noted in his own journal that he had, ‘Caught two young King Penguins on the ice … they are beautiful birds’. Cunningham, however, was unaware that these were not king but ‘great’ penguins. At the time of capture, the two Royal Navy vessels where just south of the Antarctic circle, bearing towards what was later named the Ross Sea. This was too far south for king penguins, the young of which, in any case, have brown not grey down.

The laborious task of collecting and preserving specimens of the emperor penguins was an ongoing concern for the crew of HMS Erebus. McCormick, in particular, was known for his dedication to the cause of scientific exploration. His descriptions of the emperor penguins reflected the prevailing attitudes of the time towards natural beauty and the role of the natural world in the divine order of creation.

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9 McCormick, Voyages, p. 265.
penguin took up a considerable amount of time. McCormick recorded that it took him four or five hours to skin an adult emperor penguin. What he does not note, but what Joseph Hooker privately observed in a letter to his father, is that he was ‘clumsy’ in taxidermy and produced some ‘ludicrous disasters’ when attempting to prepare a skin.\textsuperscript{11} Others on board were judged more skillful, including Ross, and Hooker himself. On H.M.S. Terror, Sergeant William Cunningham was also involved in preparing specimens of emperor penguins, noting on one occasion that he ‘skinned two beautiful [emperor] penguins for the Captain [Crozier]’.\textsuperscript{12} The penguins were preserved in pickle, so that, to quote Ross ‘the physiologist and comparative anatomist might have an opportunity of thoroughly examining the structure of this wonderful creature’.\textsuperscript{13}

The tensions between science and the demands of naval practices and protocols found further expression in debates about the right to study and indeed own the specimens of emperor penguins collected during the voyage. No preserved specimens were permitted to be accessioned into the private collection of any member of the crew. As with everything collected, they were considered government property and had to be committed to the admiralty. Hooker’s letters show just how much angst this stricture caused. Anyone who held back or circulated in advance of the expedition’s conclusion any specimen or even a sketch or journal made during the voyage, put their naval career in jeopardy.\textsuperscript{14} On one occasion, Hooker jumped down the main hatch clutching a penguin to avoid being caught by the Captain. On another, Hooker wrote of ‘smuggling’ home items from the voyage, noting that he had ‘one or two beautiful skinned Penguins for the lobby but they are not dry enough to send by this opportunity’.\textsuperscript{15} The negotiations over the penguins, and their preserved remains during and immediately after the expedition materially demonstrated the clash of naval and scientific agendas.

\textsuperscript{11} Hooker J D to Hooker W J, 25 November 1842, Correspondence from Antarctic Expedition, Joseph Dalton Hooker Correspondence Project, http://jdhooker.kew.org/p/jdh/asset/1868 [accessed 1 September 2017].
\textsuperscript{13} Ross, J C A Voyage of Discovery and Research in the Southern and Antarctic Regions during the years 1839-1843 (London: John Murray, 1847), p. 159.
\textsuperscript{14} See, for example, Joseph Dalton Hooker to William Jackson Hooker, 25 November 1842,
\textsuperscript{15} Hooker J D to Hooker W J, 5 December 1842, Correspondence from Antarctic Expedition, Joseph Dalton Hooker Correspondence Project, http://jdhooker.kew.org/p/jdh/asset/1859, [accessed 1 September 2017].
It can be argued, then, that the HMS Erebus and Terror functioned as collecting stations for securing, killing and preparing specimens of emperor penguins for the government scientific collection. They also provided opportunities for detailed field descriptions of the behaviour and appearance of the ‘great penguins’ that were encountered numerous times while the ships sailed south of the Antarctic Circle. All of this involved work with and against an understanding of penguins as mere objects of curiosity, entertainment, food and sport.

**Taxonomic objects and civic gifts: penguins in the museum**

When the two ships returned to London on 4 September 1843 the task of transporting the collections to the relevant repositories began. The movement of the emperor penguins from ship to shore was, to a degree, a move from unstable meanings connected with naval practices, problems and personalities to apparently tidier accounts made possible by the ostensibly controlled space of the museum. Before getting there, however, certain barriers remained to be overcome.

The British Museum, which appears to have been the official repository for the expedition’s zoological collection, retained at least six specimens of emperor penguin.16 But this was a relatively small portion of the final collection. As already noted, Robert Gray’s brief description of the ‘emperor penguin’ published in the *Annals and Magazine of Natural History* in April 1844 distinguished it for the first time from the ‘king penguin’ and gave it the name *Aptenodytes forsteri*.17 While this act of naming might be considered an archetypal practice of metropolitan science, it was a fragile accomplishment. The long delay in the appearance of the report on the zoological collections secured during the Antarctic expedition meant that Gray’s short and inadequate description of the differences between the Emperor and King Penguin remained subject to doubt and dispute. More significantly, it told the readers of the *Annals* very little about the ‘great penguin’ beyond a few brief and rather arbitrary diagnostic descriptions. Even while the penguin emerged as a discrete species, it underwent a significant diminishment in both scientific and cultural terms. In the years that followed, some further, but highly circumscribed, scientific descriptions filtered through. Richard Owen, Professor of Comparative Anatomy at the Royal

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17 Gray, *Aptenodytes*. 
College of Surgeons, had provided a detailed account of the skeleton donated by McCormick in 1853 and added a description of the internal organs of a ‘wet’ specimen in 1865.\textsuperscript{18} The official zoological report appeared in parts, but was only published in complete form in 1875. Even then, the only appearance of the emperor penguin was in the form of a figure drawn by the natural history illustrator Joseph Wolf [FIGURE 2]. Though in itself of considerable interest, it was hardly the detailed description that Gray had promised some 21 years earlier.

It was in a provincial museum that a specimen of emperor penguin from the voyage accumulated rather more interest, albeit short lived. Some time in November, Captain Francis Crozier, presumably with permission from the Admiralty, sent at least two immature specimens to Belfast as part of a larger collection of 150 birds gathered during the Antarctic expedition. Almost certainly killed and skinned by William Cunningham either in late January 1842 or early January 1843, the two penguins were part of Crozier’s donation to the Belfast Natural History and Philosophical Society.\textsuperscript{19} Crozier, a native of Banbridge, a small market town 21 miles southwest of Belfast, was duly elected a corresponding member of the Society, an honour that Crozier added to the more significant one of election to the Royal Society in recognition of his work on magnetism.\textsuperscript{20}

John Cassidy, the curator of the museum on College Square north [FIGURE 3], may have had misgivings when Crozier’s large collection of bird skins arrived. The museum was already packed with local and foreign objects - the consequence legacy of an ambitious collecting policy. The Society’s President, speaking at the opening of the museum in 1831, had declared that it would become, ‘a depot for the

\textsuperscript{18} Richard Owen, \textit{Descriptive Catalogue of the Osteological Series Contained in the Museum of the Royal Colleges of Surgeons of England}, vol. 1 (London: Taylor and Francis, 1853), pp. 216-17. Note Owen (and likely McCormick – see Ross, \textit{A Voyage of Discovery}, p. 422) labeled the relevant skeleton \textit{Aptenodytes antarctica} (now \textit{Pygoscelis antarcticus}). The comparative descriptions that follow of the king penguin suggest that it was in fact the skeleton of the much larger emperor penguin (see especially the note relating to the ‘smaller’ humerus in the king penguin). For the later description of a dissected emperor penguin, see Owen, R ‘On the morbid appearance appearances observed in the dissection of the penguin (\textit{Aptenodytes forsteri}) \textit{Proceedings of the Zoological Society of London} (1865): 438-39.

\textsuperscript{19} For McCormick’s pledge to donate a skeleton to the Hunterian, see McCormick, \textit{Voyages}, vol. 1, p. 253.

\textsuperscript{19} See relevant entries in Campbell, ‘Journal of William Cunningham, part 2’, p. 103; p. 134. Cunningham routinely misidentifies emperor penguins as king penguins. Many of the specimens he records as king penguins were outside the weight range for that species.

\textsuperscript{20} 22 November 1843, Council Minute Book No 3, Belfast Natural History and Philosophical Society, Public Record Office of Northern Ireland, D3263/AB/3. Full details of Crozier’s career are found in, Smith, M.\textit{Captain Francis Crozier: Last Man Standing?} (Coker: Collins Press, 2006).
productions of the four quarters of the globe’. It is not surprising, then, that finding space for Crozier’s birds was a challenge. Preparing them for display was an equally daunting prospect. Several weeks later John Cassidy resigned as curator. His successor, William Darragh, was better equipped to deal with Crozier’s donation. A skilled taxidermist with a particular interest in birds, it is likely that he took the first close look at the skins of the emperor penguins, later modelling one of them for display [FIGURE 4]. The other specimen was sent in 1846 to the Dublin University Museum.

On the back of Crozier’s donation and another large collection of ethnographic items that arrived around the same time, the President of the Society, William Thompson, called for funds to extend the museum. Thompson was himself a veteran of a separate scientific expedition sponsored by the Admiralty and an expert ornithologist. Making the most of the opportunity presented to the Society by Crozier, Thompson organized an evening meeting to discuss the scientific significance of the recent Antarctic Expedition. He dealt with the bird collection, describing the various species and exhibiting examples from the leading groups. The entire collection would, he predicted, ‘possess high historical interest’. In reports of the meeting, the emperor penguins, however, went unmentioned. It had become one natural object within a collection that signified the social and scientific significance of a provincial voluntary society struggling to raise sufficient funds to expand their property. Its importance now rested as much on the eminence of the donor – ‘our distinguished countryman, Captain Crozier’ – as it did on its value for furthering the understanding of southern ocean birds.

The penguin remained on display in the old lecture room of the museum (the extension was long postponed) along with other zoological exotica gathered from the four quarters of the globe. It featured in the popular Easter Monday opening of the museum to the masses, but faced competition for the public’s attention from Takabuti, the Egyptian mummy and ‘rare and curious handcrafts’. According to the Belfast Newsletter, the three thousand visitors to the museum on Easter Monday were more taken by ancient croziers than Crozier’s penguin.

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21 ‘Belfast Museum,’ Belfast Newsletter, 4 November 1831, p. 4. At that time, the President was Dr. James Lawson Drummond.
22 Dublin University Museum [pamphlet report], Dublin, 1847, p. 9.
23 ‘Natural History and Philosophical Society,’ Belfast Newsletter, 26 January 1844, p. 4.
24 Anon, ‘Easter in Belfast,’ Belfast Newsletter, 23 April 1851, p. 2.
In the British and in the Belfast Museum, the emperor penguins – once animated by the lively meanings that swirled around them on board the *Erebus* and *Terror* – were reduced to a more attenuated form. The one surviving specimen from the British Museum collection epitomised this diminishment: the taxidermist produced an emaciated specimen of a once magnificently corpulent bird. In Belfast, the penguin was over-shadowed first by Captain Crozier and his munificent gift, and then by the ‘ingenious productions of remote and half-civilized countries’. Once incorporated into a provincial museum, the penguin lost its prominence and was relegated to one small element of a larger civic-scientific complex.

**Conclusion**

On board the *Erebus* and *Terror*, knowledge of the ‘great penguin’ (down to how it tasted in a soup) abounded. That knowledge was not well disciplined, but it was manifold. That hardly made it ‘global’ in any sense of the abstraction, despite the ostensibly ‘global’ character and ambitions of the expedition and its aims. In a metropolitan and in a provincial museum, the knowledge and material remains of the emperor penguin were presented in a highly reduced form. In one sense, the resulting knowledge of the bird was more ‘global’ in character through the techniques of abstraction that belonged to the emerging sciences of taxonomy and the applied crafts of taxidermy. Yet in both of these ‘centres of calculation,’ local priorities subtracted from what was known of the emperor penguin among the ship’s companies of the *Erebus* and *Terror*. We might argue, then, that an object biography of Crozier’s penguin cuts across certain theoretical proclivities and upends how we might conceptualize and categorize different spaces and practices of scientific inquiry in the early nineteenth century.

**Acknowledgements**

I am grateful to Dr Nuala Johnson and Professor Patience Schell for kind invitations to present earlier versions of this paper to audiences in Belfast and Aberdeen respectively. I would also like to thank Angela Ross (National Museums Northern Ireland) for information about, and providing the image of, ‘Crozier’s penguin’. And

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25 Anon, ‘Easter in Belfast,’ p. 2
perhaps the penguin, shot on the Antarctic ice 175 years ago, deserves our special gratitude.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.