Title:

Medical Collecting on the Frontiers of Natural History:

The Rise and Fall of Haslar Hospital Museum (1827-1855).

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Abstract:

Very little is known about the Royal Navy's Haslar Hospital Museum, located in Gosport, near Portsmouth, and yet the now defunct institution was one of the nineteenth century's principal sites of medical, natural history and ethnographic investigation. Here, imperial specimens were collected, studied and used as tools in the education of generations of Naval surgeons, servicemen and scientific explorers, most notably Thomas Henry Huxley. Although principally a Naval and medical institution, Haslar Hospital Museum both assisted and challenged Britain's best known scientific collections, in particular the Royal Botanic Gardens, Kew and the British Museum. This paper presents the first history of the museum's growth and decline, between 1827 and 1855. Particular attention is paid to the agency of Naval surgeons in developing new imperial knowledge, and so to the museum's success in carving out a privileged space for object-based science at the intersection of medicine and natural history.

Introduction

Appearing before the House of Commons' 1835 Select Committee on the Condition, Management and Affairs of the British Museum, John George Children, assistant keeper of natural history collections, was asked what he knew about the recent and meteoric rise of a provincial museum collection at the Royal Hospital Haslar, located near Portsmouth on the southern coast of the United Kingdom.¹ Although Children had not visited Haslar, he reported the rumours which then abounded about the rarity of the institution's collections, and the dedication of its keepers. Eight years earlier, Haslar, one of England's oldest naval hospitals, had spent lavishly on a new museum and library to house the voluminous collections of the naval surgeons and other medical officers it variously trained, accommodated and dispatched throughout the British Empire. In the years leading to 1835, this privileged relationship with new imperial knowledge had helped Haslar Hospital Museum to grow so successful that it threatened the Committee's efforts to ensure the British Museum maintained its reputation as the nation's de facto repository of natural history specimens and ethnographic objects. By 1833, Haslar welcomed one thousand visitors annually, and held more than 7,659 specimens to illustrate subjects as diverse as ethnography, antiquity, zoology, botany, geology and anatomy.² Throughout the 1840s, Haslar Hospital Museum would make various claims to its own, privileged status as a national collection, and thus rejected the Committee's various proposals that its contents be examined 'with the view to the appropriation of valuable specimens'.³

At present, we find the 1835 committee's enquiries about Haslar curiously echoed in the questions which again now abound among curators and historians about the nature and origins of the (now defunct) hospital museum. The surviving collections, a majority of which are now held between the British Museum and the Natural History Museum, are gradually being rediscovered; in 2016, their international relevance was demonstrated by the exhibition of a number of former Haslar objects in Albany, Western Australia, where they formed a focal point in discussions between British Museum curators and local Menang people about the history of intercultural encounter and nineteenth-century British collecting.⁴ Both general and specific work on the history of collecting and its relation to these fascinating and often very early objects is nevertheless frustrated by the absence of a definitive study of Haslar Hospital Museum, as well as by the fact that the

institution's historical catalogue has been lost.⁵ In this essay, I offer what is therefore an original and much needed summary of the museum's history, from its creation in 1827 to the transfer of almost five hundred objects to the British Museum and the collector Henry Christy in 1855.⁶ I propose that Haslar Hospital Museum is best understood in relation to two concurrent themes in the development of nineteenth-century science. First, Haslar's success was influenced by the growth and professionalisation of ethnographic and natural history collecting by naval surgeons after the 1820s. Second, the museum's ability to attract and retain Admiralty, scientific and popular patronage was the consequence of a period of institutional rivalry and imperial opportunity still largely unexplored by scholarly literature.⁷

As I set out below, Haslar Hospital Museum's story was one of persisting tension within the Admiralty and among its surgeons regarding competing interpretations of the Navy's scientific remit, and in particular its relation to the British Museum and the Royal Botanic Gardens at Kew, which formed two additional nodes as members of a tripartite network for the metropolitan study of exotic specimens in nineteenth-century Britain. As I have suggested already, Haslar's place within this intriguing relationship has since been forgotten.⁸ Although the Naval hospital museum was in some ways a unique institution, this deficiency of understanding is in part a symptom of well-established gaps in the history of science and of natural history. There is no particular literature on the subject of the hospital museum as a space of imperial learning in the nineteenthcentury, and this is compounded by a worse awareness of what happened in specifically Naval medical institutions.⁹ Additionally, an enduring scholarly inclination to treat surgeon-collectors, and indeed collectors in general, as 'fact gatherers' rather than producers of knowledge, has necessarily occluded study of centres of enquiry, or in the Latourian sense of 'calculation', beyond obvious localities, or within privileged or littleknown networks.10

The relationship between medical collecting and natural history collecting, called by Janet Browne 'one of the most interesting questions' in the history of biogeographical science, therefore remains little understood; Browne herself has repeated the suggestion that surgeon-collectors are to be considered only 'the means of production' for the work of sanctioned science by the metropolitan elite.¹¹ My discussion of Haslar seeks to reverse such assumptions. The hospital museum was itself a democratic infrastructure,

or 'means of production', for the new imperial and scientific knowledge that was increasingly produced by the Royal Navy's surgeons, with the assistance of Naval captains and interested sailors, in the first half of the nineteenth century. Though the chronology of Haslar's development was comparable to that of the museums of the East India Company and the London Missionary Society, its collections were thus associated less with public, commercial, oriental or religious modes of display.¹² While its science was often informed by the concerns of Naval surgeons, Haslar Hospital Museum was not a peripheral or even an essentially specialist place of investigation, and thus the neglect afforded to the study of specifically medical natural history is not entirely to blame. Before its reorganisation in 1855, Haslar Hospital Museum was one of the principal authorities on, and destinations for, the imperial collections of nineteenth-century Naval surgeons, servicemen and scientific explorers. It is time to recognise this, and thus to reassert Haslar's place in the history of imperial collecting, science and display.

Origins and growth

Haslar Hospital Museum, founded in 1827, resided at an institution of considerable importance to nineteenth-century Naval science and bureaucracy. Having first opened in 1753, Haslar was the oldest and best known of the Royal Naval Hospitals, and was responsible for training and accommodating a significant number of the Navy's surgeons and medical personnel, ahead of their assignment to overseas voyages. The institution cared for convalescent sailors and 'Naval lunatics', but was necessarily also a lively meeting point at the centre of a much greater network, being located in Gosport, near Portsmouth, where a large number of vessels and voyages of discovery were variously victualled, despatched and decommissioned. As a locus of Naval medicine, Haslar also earned considerable acclaim; it was here that much pioneering work on a cure for scurvy took place under one of the hospital's physicians, James Lind, and Haslar was for a time home also to many other notable individuals, including the explorer Edward Parry. As a training ground for the Royal Navy's surgeons, one of Haslar's best known exports was the biologist and Darwinist Thomas Henry Huxley.

The impetus for a museum and an associated library at Haslar arose following the appointment of the Naval physician William Burnett to the Victualling Board of the Navy and as Inspector of Hospitals in 1822.¹⁴ Burnett was thereafter promoted to Physician-General of the Navy, in 1831, to Inspector-General in 1841, and finally to Director-General of the Medical Department of the Royal Navy in 1843. Burnett had previously served as Physician and Inspector of Hospitals to the Mediterranean Fleet, from 1810, and had been appointed as the Medical Officer in Charge of Prison Hulks at Chatham in 1813. Between 1822 and his retirement in 1855, and perhaps in consequence of these various experiences, Burnett was to prove a keen supporter of hitherto lacking structures of formal medical education in the Royal Navy. Haslar's museum and library were only the most successful examples of an initiative also implemented at the Royal Naval Hospitals of Chatham and Plymouth, through which the introduction of well-defined spaces for medical education offered the possibility of formal interaction between junior surgeons and the hospitals' experienced physicians, who were uniquely knowledgeable on ailments specific to Naval service. The reforms introduced by Burnett would ultimately lead to the establishment of an official medical school at Haslar in 1881.¹⁵ In the intervening period, medical curricula was less stable. Having, as it seemed, a less direct relevance, the place of natural history and of ethnography within these Naval medical museums would form a point of continuous discussion throughout Burnett's career.

The phrenologist James Scott was the earliest member of Haslar's medical staff to take charge of the scholastic functions of the library and museum, following his appointment as Haslar's first 'Librarian, Lecturer and Curator of the Museum' in 1827. From 1830 onwards, Scott also served as Principal of Haslar Lunatic Asylum, and was thus among the hospital's most distinguished staff until his retirement as a result of poor health in 1838. Scott used the space provided by the library to give weekly lectures to the hospital's medical staff. According to a report compiled for *The Lancet* in 1832, these concerned 'the diseases of seamen, and of tropical climates', being also 'replete with sound doctrine and practical information'. In a practice which required the prior distribution of warning cards to ward off unsuspecting visitors, the size of the new museum permitted post-mortems to be carried out inside, and thus allowed for the direct transformation of organs and other matter into pathological exhibits. Scott's work in the library was supported by an initial award of £400 for library books, which was

supplemented by an annual budget of £150 thereafter.¹⁹ The museum, on the other hand, was expected to be largely self-sustaining. Specimens of morbid and comparative anatomy arose as a by-product of surgical procedures, while all other objects arrived as donations from returning surgeons and other naval officers, many of whom were tasked specifically to act as the museum's appointed collectors.

Before the museum first opened on 26 June 1827, Haslar had already amassed a significant collection of natural history and medical specimens. These were previously stored in cupboards within the hospital's wards.²⁰ There was no obvious infrastructure at the time to support the dissemination and analysis of the Navy's collections, and it was this which gave credence and Admiralty support to Burnett's plan to establish a museum at Haslar. In spite of numerous initial difficulties, wrote Burnett in 1828, 'I am confident however that I shall ultimately succeed, and that the Institution will prove both a benefit and a credit, to the Medical Department of the Navy'. 21 Burnett's timing was fortuitous, as his efforts occurred at a time in which the Admiralty was beginning to take a sterner attitude toward the fate of collections made upon Naval voyages. Though instructions by John Barrow, Second Secretary to the Admiralty, demanded that Naval collections be considered public property, there was no explicit sense of which items were most favoured.²² At Haslar this ambiguity, as well as the absence of any local curricula for medical training, coincided with a near Humboldtian desire to facilitate what had by then become the privileged and established expertise of sailors and naval surgeons on a range of exotic and imperial subjects; Scott's programme of medical lectures, while initially popular, soon shrank in quantity and attendance, and were replaced with a broader curriculum, which included specific sessions on natural history, after 1838.²³

One of the earliest accounts of the museum does much to evidence the degree to which Burnett envisaged an expensive, authoritative and catholic destination for the various collections of the Royal Navy's medical personnel.²⁴ Appearing in 1829, it described:

two elegant rooms, the lower superbly fitted up with mahogany cases, commodious seats, &c, as a library and lecture-room for the delivery of lectures to the medical pupils; the upper finished in the most costly style of Grecian design, for the reception of a museum; the table and upright cases being of solid mahogany, with brass ornaments, and the whole arrangement strikingly tasteful. It already contains many curious specimens in morbid anatomy, and a considerable number of foreign birds, insects, shells, minerals, plants, &c, principally presented by the

medical officers of his Majesty's navy. From the peculiar advantages possessed by this museum, and the professional acquirements of its directors and supporters, it may be expected to become particularly rich and valuable in morbid and comparative anatomy, as well as highly interesting as a general collection.

While it is undoubtedly true that Haslar's museum (see Fig. 1. and Fig. 2.) would soon become an interesting and diverse collection, the suggestion that it had been created with a high degree of professionalism is less convincing. The passage above derived, in fact, from a far less flattering appraisal which had been offered one year earlier by two local intellectuals (perhaps related) named Henry and Julian Slight.²⁵ As fellows of the Royal College of Surgeons and, in the former's case, the Honorary Librarian to the Portsmouth Philosophical Institution, the Slights had good reason to fear the competitive threat which Haslar posed, as a 'general collection', both to the Portsmouth Institution's own museum and, perhaps, the Hunterian. There may, however, have been some truth in their commentary. Haslar's display cases, they wrote, were:

of solid mahogany...but extremely ill adapted for the purposes for which they are intended, being too deep, and not calculated to preserve the specimens from the ravages of insects &c. The arrangement in the museum of the Portsmouth Institution, though by no means so costly, is infinitely better adapted. The specimens are as yet but few, and the anatomical preparations of little interest...

The Slights were implying that Burnett's financial power as a member of the Victualling Board rather outweighed his scientific and technical credentials, with respect to the skilled arrangement and storage necessary in a museum. Indeed, much of the actual work was undertaken by an inexperienced labourer named John Barron, who was placed in charge of arranging and preparing all exhibits.²⁶ While this was not unusual at a time in which trained experts were lacking, Barron's appointment as one of the museum's few members of dedicated staff was a symptom of the fact that, by 1828, the Admiralty's patience and patronage had already begun to wane.²⁷ As much was apparent in a letter which Burnett addressed to William Townsend Aiton, then Director of the Royal Gardens at Kew, in January of that year.²⁸ The letter was in response to an urgent missive that Aiton had sent to Burnett some days earlier, asking whether he intended also to build a botanic garden at Haslar; a possibility which Aiton evidently feared. In a manner which would have failed to entirely reassure, Burnett wrote:

regarding the intended establishment of a Botanical Garden at Haslar...I beg to assure you that there is no present intention as far as I know, of doing so. It is very true that the subject has often occupied my mind, and I hope some time or other if God spares me that I may be able to prevail upon the Higher Powers to allow me to commence it: but at this moment, when so many reductions are taking place, I fear it would be worse than useless to bring forward any proposals conceiving it. It is an object, however, of which I shall never lose sight

This must have seemed incongruous given the presumably considerable expense of Haslar's library and museum. Since, however, there is strikingly little mention of the source of these projects' funds in the Victualling Board's associated reports, it is not unreasonable to suspect that Burnett, whose career was dogged by accusations of dubious or outwardly unscrupulous financial behaviour, had contrived to pay for them in a manner that was not entirely legitimate.²⁹ Indeed, Burnett's patronage of the museum and of Haslar, which continued until his retirement in 1855, always sat uncomfortably with his official duties as the Navy's Physician-General and Director-General, which required him to be based not at Haslar, but at Somerset House in London, from where much of the museum's business was accordingly conducted. While Scott was theoretically responsible for the directorship of the museum, for example, Burnett took charge of writing and signing letters of gratitude for donations; these were addressed from the Admiralty buildings in London, but carried the 'Haslar Hospital Museum & Library' seal.³⁰ In many cases the letters concerned objects which had first arrived in London, before being conveyed to Somerset House and finally to Gosport. In this manner Haslar's collections were able to grow beyond those arriving in Portsmouth, and the museum's territory accordingly encroached upon that of rival institutions in London.

Burnett's persistent if unofficial advocacy was aided by his duties as an inspector to the Navy's hospitals, which allowed him to visit Haslar frequently, and so to follow the museum's progress. In his ensuing reports, Burnett made frequent appeals for further funding and organisational assistance.³¹ Many of these concerned Barron, whose work was instrumental to the museum's ability to function, and who in consequence Burnett was always eager to please. In 1832, Burnett proposed that Barron, who 'stuffs the Birds &c and otherwise prepares all specimens of Natural History in a very superior manner', be called 'Keeper of the Museum' (the title 'Curator' being taken already by

Scott), with an associated increase in pay.³² In 1841, Burnett made a further appeal to rename Barron 'Conservator of the Museum', and for his pay to be increased again.³³ At this stage, Barron was described as 'a first-rate character as a preparer of and setter up of specimens of Natural History and Anatomy in all their branches superior to any man...either in or out of London'. So 'truly valuable' were his services, Burnett continued, that his loss would even threaten 'the interests of science'. Indeed the museum was, by this stage, 'in daily fear that he may be enticed from us (which would be an irreparable loss), by the offer of higher wages'. The request for Barron's promotion was granted, but only for a further request to be made, the following year, that he no longer be 'mustered with the labourers, which is not at all consonant with his present designation'.³⁴

Burnett's inspection reports were a principal site of negotiation for the Navy's scientific ambitions, as it was here that the need for a natural history and ethnographic collection was repeatedly impressed. A crucial moment arose in 1833, when an exponential growth in non-medical specimens began to push the museum toward its limits. Amid an appeal for more space, this necessitated that Burnett explain why he wanted to continue to accession material other than the anatomical specimens which formed an essential part of the surgeons' medical training:

I was perfectly aware from the beginning that this might be the case [he wrote], as from the small number of Patients in the Hospital during a period of Peace and the difficulty there is for conducting Morbid Anatomy on Shipboard, I could not but foresee, that the specimens of Natural History would soon outrun those of Morbid or comparative Anatomy though any attention to the latter has never for one moment ceased...but I have a great reluctance to discourage entirely the acquisitions of specimens of natural history many of them of great beauty and finely preserved, and which I feel hereafter will not only prove beneficial to the medical officers of the Navy, but also reflect credit on them.³⁵

Through his appeal to the beauty of the specimens and the skill with which they were preserved, Burnett suggested that items of scientific interest were valuable also for the prestige they brought to the museum as evidence of Naval surgeons' intellectual credentials. It is not difficult, however, to see why the Admiralty may have grown frustrated at their abundance. An attached inventory of the museum for the period 1832-1833 revealed that the institution's 346 anatomical specimens were vastly

outnumbered by 7,313 objects pertaining to natural history and other subjects, including 600 ethnographic objects referred to by Burnett as 'Specimens in Rude arts' (Fig. 3.). Burnett's request for more space, it seems, was unsuccessful, for he made further appeals in 1838, 1839 and 1842, until an additional room was finally granted (at the expense of a ward used by 'refractory lunatics') in 1852.³⁶

Early collecting at Haslar

While the Admiralty's patronage was never guaranteed, it certainly tolerated Burnett's ambitions for Haslar, and the free reign the latter was given ultimately helped the museum to gain a reputation for research and scientific expertise which placed it in a much superior category to that of its rivals. The museum of the United Services Institution in London (also known as the Naval and Military Museum) also sought to draw upon the collections of returning naval and military personnel, but often struggled to be taken seriously. In an eloquent defence of its collections written in 1849, one member bewailed that he had 'often heard this Society run down as a mere curiosity shop'.37 By contrast, one of Haslar's principal advantages was its ability to commission learned individuals within the naval service to act as its own appointed collectors on high profile expeditions, and to display collected objects on their return in an authoritative space of learning. Two years before the museum opened, Burnett had already employed a young naval surgeon, Alexander Collie, to act as a surgeon and collector aboard the Blossom, which departed Portsmouth on a voyage of discovery to the Pacific and the Bering Strait in 1825, under the command of Frederick William Beechey.³⁸

Collie's appointment to the *Blossom* in 1825 and the construction of Haslar's museum and library in 1827 appear to have been deliberately timed. This was not necessarily the Admiralty's particular intention, for it had on Barrow's recommendation employed its own naturalist, and a civilian rather than a naval officer, George Tradescant Lay, upon Beechey's voyage. As suggested above, this was a period in which the Admiralty took a strong position on the ownership of collected specimens. In May 1825, the Lords of the Admiralty instructed Beechey that:

As we have appointed Mr. Tradescant as naturalist on the voyage, and some of your officers are acquainted with certain branches of natural history [a reference to Collie], it is expected that your visits to the numerous islands of the Pacific will afford the means of collecting rare and curious specimens in the several departments of this branch of science. You are to cause it to be understood that two specimens, *at least*, of each article are to be reserved for the public museums; after which the naturalist and officers will be at liberty to collect for themselves.³⁹

The order that such collections go to 'public museums' was another reason why the Naval and Military Museum, which limited its membership to service personnel, inevitably suffered; it had been caught, in other words, between the changing paradigms of collecting for curiosity, and collecting for the benefit of public knowledge. So long as Collie's collections were transmitted to Haslar it is clear that he could not expect to experience any problems, even if his own collecting risked subverting that undertaken by Lay. In spite of its status as a national collection, the British Museum had no authority to request Collie's collections in this period, either. Upon hearing of Collie's subsequent appointment to the *Sulphur*, Children applied to the Colonial Office to request it to direct Collie to collect for the British Museum instead, but was rebuffed on the basis that 'in that case they had no influence'. Writing home in 1825, Collie made clear that his initial appointment to the *Blossom* was intended to serve naval interests alone:

[Burnett] in a rather flattering manner, [wished] me to collect specimens of Natural History for the Naval hospitals of Haslar and Plymouth, praised my assiduity & told me that I might have any thing I required for preserving the different specimens.⁴¹

The confidence Burnett placed upon Collie was vindicated over the course of his three years onboard the *Blossom*. As a collector, Collie was unusual for his considerable ability and interest in negotiating intercultural encounters. During the *Blossom*'s visit to the Bering Strait, Collie acquired for Haslar a large number of harpoons and other material from the Arctic peoples of North America; such was the extent and variety of these objects that the British Museum complained as late as 1873 that it had not been given the initial rights to keep them.⁴² Collie's botanical collections were also worthy of note. While some collectors sought merit in new natural history discoveries, Collie wrote to various scientific elites to express his 'general dislike to the very fashionable system of naming [new specimens] after individual persons', and ordered that nothing

he found was to be named after him.⁴³ In a similar manner, Collie construed his work for Haslar as a contribution to scientific knowledge, rather than as an exercise for the public benefit. In 1829, Collie instructed Scott, now Haslar's librarian, that his comprehensive notes from the *Blossom* expedition, which ran to eight volumes, were not to be 'exposed to the public more than is necessary for the good of the Museum'.⁴⁴

Haslar as a centre of enquiry

Following Collie's success, nearly all of the nineteenth century's subsequent voyages of discovery by Naval vessels employed individuals acting for Haslar in some way. Following the departure of the second voyage of the Beagle in 1831, Burnett received various collections from the expedition's captain, Robert Fitzroy.⁴⁵ A very large number of objects arrived at Haslar in the years after 1835, following the Sulphur's new command as a survey ship in the Pacific Ocean. 46 This included material from the Naval officer Charles Elliott (who used the vessel to transmit material gained from his employment as Master Attendant to the staff of the Chief Superintendent of British Trade, in China), a 'Captain Dawkins' (based in Hong Kong), Robert Austin Bankier (a surgeon of the Royal Navy based in Port Essington, in north Australia), Andrew Sinclair (also a naval surgeon) and finally Edward Belcher (who had accompanied Beechey to the Pacific and subsequently captained the Sulphur).⁴⁷ Following the departure of the surveying vessel Herald to Australia and the Fiji Islands in 1852, Burnett also received specimens from the surgeon John Goodridge, and assistant surgeon John Denis Macdonald. Burnett's continued agency in supporting such work was subsequently made clear by Macdonald, who explained how he had been appointed 'with the object of augmenting the Haslar Museum. Sir William Burnett furnished us with everything that we asked for, in the form of collecting materials for the museum at Haslar, and we subsequently collected for the British Museum'. 48 As a result of this work Macdonald was promoted to the rank of surgeon 'rather speedily', as he put it, and soon elected a Fellow of the Royal Society.

Haslar Hospital Museum's development as a valuable and well-connected institution was undoubtedly the result of Burnett's patronage over a period of twenty-eight years. It is less convincing to suggest that Burnett had as much to do with the growth of the

museum's scientific and intellectual reputation, other than with respect to the rarity of the specimens he helped to procure. Perhaps the greatest virtue of Burnett's direction was his seeming inability to articulate the purpose of the natural history and ethnographic collections which he pressed the Admiralty to entertain. Whereas Jessica Ratcliff has for example remarked in her study of the museum of the East India Company that the 'relative independence' given by officers and colonial administrators by virtue of their geographic distance was a problem for those seeking to 'centralize the processes of accumulation', collectors for Haslar were permitted to pursue their own interests and expertise, in a decidedly Enlightenment fashion.⁴⁹ The museum's collections therefore grew highly diverse, and were much responsive to the changing scientific tastes and interests often developed by surgeons themselves.

The appointment to Haslar in 1838 of the famous naval surgeon, naturalist and arctic explorer John Richardson, following Scott's resignation, did much to improve the museum's fortunes; Richardson was appointed as the hospital's Chief Physician, but it was made clear from the outset that he would be responsible for supporting and improving the museum's collections. Prior to this, Richardson had gained fame and a scientific reputation in consequence of his appointment to John Franklin's first arctic expedition, in 1819. While preparations for the expedition were underway, Richardson formed influential friendships with Joseph Banks and the naturalist John Edward Gray, later of the British Museum.⁵⁰ Richardson was subsequently praised for having done much to save the exploring party from famine, and following his return from Franklin's second expedition in 1823 became Chief Medical Officer to the Melville Hospital in Chatham. Here, Richardson spent much of his time compiling the four volumes of his Fauna Boreali - Americana, which detailed the specimens he collected in North America.⁵¹

Richardson did not supersede Scott in the title 'Curator'. This was awarded instead to Barron, who was instrumental in performing the quotidian tasks associated with the museum's proper functioning.⁵² Nevertheless, Richardson was a very active presence; one of the immediate benefits of his appointment was the arrival into the museum's care of 1,919 species of 'North American Plants', which likely composed the entirety of the botanical collections Richardson had made upon the second Franklin expedition.⁵³ Richardson's main interest however was in ichthyology, and so his time at Haslar also

saw the addition of a considerable number of fish. 'Having charge here of a museum', Richardson informed William Jackson Hooker shortly before the latter's appointment as director of Kew in 1841, 'I am looking in all directions for materials to increase it, and as fish had been more neglected previous to my coming here than the other divisions of the anatomical kingdom I turned my attention chiefly to them'.⁵⁴ Richardson's appointment to Haslar also brought the museum into closer contact with other notable scientific authorities. As a friend and correspondent of Charles Darwin, with whom he shared advice and traded numerous specimens, as well as Gray, of the British Museum, Richardson was able to increase awareness of Haslar's museum, and to develop its reputation in prestigious networks.⁵⁵ After 1838, frequent visitors to Richardson and the museum included not only Darwin, Hooker and Gray, but also the biologist, comparative anatomist and palaeontologist Richard Owen.⁵⁶

Richardson refused to allow the greater proximity to Bloomsbury and Kew effected by his appointment to diminish the museums' traditional rivalry as institutions demanding an equal share of new collections and associated knowledge. Following his return to England in 1842 after a period of collecting in Australia for Kew, the British Museum and Haslar onboard the Sulphur, the naval surgeon Andrew Sinclair for instance wrote to Hooker to describe 'the gentle contentions between Mr Gray & Dr Richardson at the Museum about what each is to have'.57 The dispute this caused, said Sinclair, 'was interesting to see'. In 1852, the collections made by the naval captain Henry Kellett during the Herald's 1845-51 circumnavigation of the globe became the subject of argument between Richardson and the British Museum's trustees after they were split between the two institutions. As was later reported in *The Athenaeum*, Richardson complained that he could 'make but little' scientific use of those kept at Bloomsbury, 'for the Trustees [of the British Museum] refused to allow him to take the specimens away, whilst his duties at Haslar Hospital prevented him from coming to London to examine them'. 58 At this, The Athenaeum expressed surprise, remarking that 'the request for a loan of specimens which could not have been injured by removal or examination' was not unreasonable, given that the Herald collections were in any case 'probably amongst the boxfuls of bones known to lie rotting in the cellars of the Museum'. According to this respected periodical, then, Haslar Hospital Museum was a decidedly superior choice of institution for important collections to be sent and studied.

The period after 1838 was nevertheless one of increasing cooperation between the three centres of enquiry at Haslar, Kew and the British Museum. Sinclair and Macdonald, as we have seen, were among many collectors tasked to represent all three institutions in these years. A similar agreement existed in 1843 to govern the division of the collections of Benjamin Bynoe, who had been surgeon onboard the third voyage of the *Beagle* throughout the course of its survey of the Australian coasts. Correspondence between Richardson and Hooker shows that the former was able to transmit boxes of Bynoe's collections to Kew even after Burnett had 'mistakenly' sent them to Gosport.⁵⁹ By this stage Hooker and Richardson were also working together to petition the Admiralty, via Barrow, to fund the publication of various zoological and natural history texts. The extent of the network between the three institutions, and of a shared interest in a wide range of subjects, was most visible in 1850 when an early draft of William Hulme Hooper's *Ten Months among the Tents of the Tuski* was received first by Richardson, conveyed by him to Hooker and then sent by Hooker 'to the care of Mr Gray', who in turn gave it back to Richardson on the latter's next visit to Bloomsbury.⁶⁰

Richardson himself published several accounts of expeditionary collections, and managed in return to acquire many of the objects described therein for Haslar's museum. This was the case not only with the returns of the *Sulphur* but, as discussed above, at least half of those made by the *Herald* under Kellet.⁶¹ One of Richardson's most consequential actions while at Haslar, in retrospect, was his role in appointing Huxley to the *Rattlesnake* in 1846. Famously, Huxley's letters record how he had been 'ousted from the museum', after:

Sir J. Richardson (who has shown himself for some reason or other a special good friend to me) told me that he had received a letter from Captain Owen Stanley, who is to command an *exploring expedition* to New Guinea (not coast of Africa, mind), requesting him to recommend an assistant surgeon for this expedition - would I like the appointment?⁶²

The museum therefore played a role in Huxley's early education; he had first arrived at Haslar in 1846 after leaving the University of London, but did not remain at the hospital for long. Little can be known about the type of education that he and other young surgeons would have received. The exact content of the lectures given by Scott and others was not recorded, although it is known that Richardson encouraged specific sessions on natural history after 1838.⁶³ Even before this, it seems more than probable

that those given by Scott, who maintained an interest in phrenology and its relation to mental function, would have featured crania, natural history and material culture to some extent. Another clue about the institution's educational function is given by Richardson's practice of categorising fish as a division of the anatomical kingdom. Arguably, this reveals the underlying relationship between medicine and natural history, as it existed at Haslar Hospital Museum. The fish were not specimens of a purely encyclopaedic curatorial interest, but rather a means to illustrate relationships between the bodily structures of a range of animals, including humans. This methodology suggests a framework through which ethnographic specimens may also have been understood. Appearing as they did among comparative anatomy, it is possible that the various collections of material culture were seen also as anatomical specimens, showing geographic and cultural variations of a single form, as in masks, shields and weaponry. In this manner, the museum's arrangement would have preempted the more explicit evolutionary typological philosophy of Augustus Henry Lane Fox Pitt-Rivers, who observed in 1891 that 'when, as in the case of most prehistoric objects and many of the arts of savage nations, the dates cannot be given, then recourse must be had to the sequence of type, and that is what I term "Typology".64

Haslar as a national institution

It was owing to the museum's growth under Richardson that Burnett increasingly came to refer to Haslar as a 'national institution' after 1842. In one of his inspection reports for that year, Burnett described how the museum 'continues to improve under the care of Dr Richardson...[it] has now in some measure become a national one, and is visited by great numbers of persons'.65 The following year, he added that Richardson:

has devoted a great share of affection to this Establishment and its progressive improvement, and arrangement is commensurate with the Doctors' high character, and I feel the day is not distant, when it will be considered an object of great national interest as containing some of the fairest and best specimens of morbid Anatomy as well as objects of Natural History in these Kingdoms.⁶⁶

But what did Burnett mean by national? We have seen that by 1843 Haslar's standing was comparable to that of Kew and the British Museum, when considered in terms of its

access to new collections. This was a considerable advancement upon its position eight years earlier, when the 1835 Committee had suggested that Haslar's specimens could be or ought to be transferred from Gosport to Bloomsbury. With respect to science, the museum reached its peak after 1850, following the retirement of John Barron in favour of his son, Charles (now Curator), who proved to be highly ambitious and scientifically adept.⁶⁷ In 1851, the museum also acquired the surgeon and naturalist William Balfour Baikie, who did much to identify and to promote its contents. In an 1852 letter to the *Zoologist*, Baikie sought to encourage more scientific visitors to the museum. Since 'additions from all parts of the world are frequently augmenting its treasures', he wrote, 'I doubt not, well managed as it is, that it will ere long vastly increase in scientific value'.⁶⁸ In another sign of the institution's growth, *The Lancet* called in 1851 for Haslar to become a national centre for the 'systematic instruction' of 'every assistant surgeon in Her Majesty's service'.⁶⁹ While the same work could be done at Chatham or Plymouth, *The Lancet* opined, 'The library and museum at Haslar, the asylum for lunatics, and the size of the building, are all in favour of that establishment'.

This was a period in which the Admiralty's own attitude to scientific collecting also began to mature; its publication, in 1849, of A Manual of Scientific Enquiry gave unprecedented direction to the collecting activity of naval servicemen.⁷⁰ In 1854, Haslar continued this tradition by publishing its own guide to scientific collecting, A Manual of Natural History.⁷¹ The Manual was composed by the younger Barron in association with Baikie and Arthur Adams, who was another of the hospital's assistant surgeons and a fellow worker in the museum. The Manual's more than seven hundred pages contained many hints on how to collect and to preserve collections of natural history, but consisted in the main of guides on identification and classification. While Haslar's Manual contained no specific section on ethnography, in contrast to the Admiralty's own publication, it did suggest that 'all traces of man should be most carefully attended to, as being of more than ordinary interest'.72 The influence on its contents of the museum's material culture collections was sometimes discernible. A discussion on tortoises ends with the observation that 'in a really economical point of view they are not of much importance, the principle product which they yield being "Tortoise-shell," so extensively employed in the arts and manufactures [of the 'inhabitants of the country in which they are found'].⁷³

Another means to judge the museum's 'national' status is that suggested by Burnett, who claimed that 'great numbers of persons' were visiting by 1842, perhaps tempted in part by the fact that entry to the museum was apparently free of charge. The interest of working class or uneducated persons in natural history museums in this period (and indeed educated visitors as well) is now a topical and productive area of discussion, but little can be said about how Haslar's own visitors may have received the museum, and challenged or contributed to its claims of knowledge. There are two exceptions in the form of accounts written by visitors to the museum in 1847 and 1854. The first appeared in a 'pictorial and literary sketch-book of the British empire', published in London by Charles Knight. Here, Haslar was described as a significant landmark which included:

a range of apartments...devoted to a Museum of Natural History: not very closely connected, perhaps, with naval affairs, or Hospital affairs; but still, as the contents have resulted from various donations, and as they relate in part to the professional knowledge of the medical officers of the establishment, they ought to be welcomed.⁷⁶

The 1854 account was much more enthusiastic. It appeared in an American publication, *The Illustrated Magazine of Art*, and thus revealed burgeoning international interest in Haslar's collections. Here, the museum was described as:

a well-arranged and tolerably extensive collection of skeletons of human beings, mammalia, birds, fishes, reptiles, serpents, and other species; stuffed and preserved fishes; some stuffed animals, and a very good collection of birds; some strange-looking weapons - axes, knives, etc.-from savage tribes...Altogether the museum is an interesting collection; it has been formed principally by donations from naval officers and others, who "go down unto the sea in ships," and bring from foreign climes their varied curiosities.⁷⁷

Although we cannot always know with such precision what visitors thought of the museum, nor what first attracted their gaze, Burnett's claim that Haslar received many visitors can be quantified in result of the fortuitous survival of the museum's *Visitors' Books*, which attempted to record the name, profession and residence of all persons who visited the museum between 13 September 1827 and 1 February 1853, after which date their pages become abruptly blank. Comprising two volumes, the *Visitors' Books* offer a unique record of social history through their chronicling of the backgrounds of early and mid-nineteenth century visitors to Haslar Hospital Museum; they feature many

interesting and significant names, including that of Sir John Franklin, who visited the museum with a party of friends on 24 October 1830.⁷⁹ There is no guarantee, however, that the records were kept consistently. A party of women who visited in 1848 was so large that the list of their names simply ends 'ad infinitum'.

I have conducted detailed research on the Visitors' Books elsewhere, and it would require a separate article to do them justice.80 Concisely put, however, my count of the people who are recorded as visiting the museum in discrete years, taken at four-year intervals between 1828 and 1852, suggests that the total amount of visitors throughout this period as a whole would have exceeded thirty-two thousand. Of these visitors, approximately ten thousand appear to have been members of the public, with no Naval or military affiliation. While most came from the surrounding area, including in particular Gosport and Portsmouth, a very large number of people travelled from London; in 1840, in fact, more Londoners visited than did residents of Gosport, thus supporting our impression that the museum by then possessed a considerable reputation. With respect to professions, self-defining 'Gents' or 'Gentlemen' assumed the largest cohort, while students (of whom many medical), merchants, surgeons, 'Ladies' and solicitors followed closely behind. In 1840, a very large number of visits from members of the public was associated with a considerable range of professions, including a strange and lively mix of carpenters, spinsters, watchmakers, dissenting ministers, brewers and dress-makers.

The Museum in decline

By 1854, Haslar Hospital Museum had reached the peak of its success. Under Richardson, the collection had diversified and grown, and now attracted an audience ranging from schoolchildren to the brightest minds of the period. The publication of *A Manual of Natural History*, in tandem with the growing scientific reputations of Baikie and Barron, signified the museum's increasingly active role in intellectual culture. It seems that we must accordingly turn to a catastrophist explanation, rather than a gradualist one, to explain the sudden transferral of the museum's ethnographic, botanic and zoologic collections to the British Museum, to Kew, and to the collector Henry Christy in 1855. The closure of Haslar Hospital Museum as a space of broad intellectual

enquiry in these years was much at odds with its own success, the Admiralty's then growing investment in scientific endeavour, and even the attempts of its own surgeons, through the medium of their journals, to continue to assimilate imperial knowledge in subsequent decades. The transfer of Haslar's collections to the British Museum was not, therefore, an attempt to expose the rich collections of a small and little-known institution to a national audience that it did not otherwise have; in the shadow of the Great Exhibition of 1851, this had been the fate of other provincial collections.⁸¹ As late as 1854, the Admiralty's specialist interest in its collections was growing, not declining.

The *Visitors' Books* again provide some clue to the museum's fortunes. While figures were considerably down on the heights of the 1840s, the abrupt cessation of visitors to Haslar's collections on 1 February 1853 suggests that the museum closed almost immediately. One cause of this may have been the 'unexpected arrival of 700 cases of scarlet fever at Haslar Hospital in 1853', as *The Lancet* reported in a subsequent appeal for Naval hospitals to be better prepared for 'sudden emergencies'.⁸² According to Richardson's son, John B. Richardson, this 'great epidemic' led the hospital's medical wards to become 'so crowded that the patients overflowed into the surgical wards and, indeed, into all available places'.⁸³ Patients may therefore have been housed in the library and museum, requiring their closure to the public. This is not quite sufficient as an explanation, however, for we know from *The Illustrated Magazine of Art* that the museum continued to receive visitors in 1854; it may have been that the practice of keeping the *Visitors' Books* ended as a result of the turbulence brought about by the epidemic.

An associated, if more convincing explanation, relates to Burnett's retirement as Director-General of the Medical Department of the Navy in 1855, and to Richardson's resignation as Medical Inspector of Haslar later that year. This was also the year in which Parry died and Francis Beaufort retired as Hydrographer to the Navy, thus signalling a period of general disruption. Burnett's retirement was not in itself controversial, as he was then 76 years old. Upon his departure, however, Burnett's position was taken not by Richardson, who was the obvious candidate, but by John Liddell, who had in 1844 been appointed the Navy's Inspector of Fleets and Deputy Inspector-General of Haslar. According to the contemporary media, Richardson's resignation in April was proof of his outrage; 'Sir John Richardson...has consequently

sent in his resignation', wrote *The Times*, 'he being the senior medical officer of the service, and not liking to serve under a junior, Sir John Liddell standing two below him on the list'.84

Another, overlooked, explanation for Richardson's departure from Haslar is the fact that his youngest son, Edward Kendall Richardson, had died in the hospital (from scarlet fever), aged ten years old, under his care that same year. Whatever the case, however, Liddell's tenure in charge of Haslar began with a radical rearrangement and disposal of its collections, in what must have seemed close to vandalism to Richardson and Burnett. Acrimony is perhaps implicit in the timing of the collection's disposal, which was effected within two months of Liddell's promotion and Richardson's retirement. The speed at which things changed, and the consequent obscurity of Haslar's collections, revealed the importance but also the delicacy of the museum as a space for medical and scientific enquiry; Liddell seemingly did not share Burnett and Richardson's belief that the collections belonged within a space of naval medical education, but neither did they find much meaning in subsequent repositories, including the British Museum. Being denuded of their situation as Naval collections within a space of medical learning and natural history, Haslar's specimens lost their identity as objects of science, education and intellectual research.

The departure of many of its collections in 1855 did not signal the end of Haslar Hospital Museum, although its recovery was frustrated by Baikie's departure upon a new expedition in 1857, and his death in 1864, which was also the year Liddell retired. Images of the museum from the post-1860 period (Fig. 1 and Fig. 2.) depict further circulations of objects and categories of display, in which ethnographic specimens were again included and withdrawn; these notably included specimens from the *Challenger* expedition, of 1873-1875, collected by the surgeon Alexander Crosbie. According to William Tait's 1906 history of the hospital, the museum had by this stage catalogued 11,585 specimens. Iddell's attempts to clear seemingly superfluous collections therefore met its match in the enduring tendency of naval officers to deposit a diverse range of objects upon their return from voyages. Barron, who remained until 1884, continued Richardson's work by describing and exchanging zoological collections with the British Museum until at least 1868. After 1855, however, mention of the museum in popular or scientific texts declined very sharply. Exactly what was displayed at the

museum, and for what purpose, between then and the closure of Haslar Hospital in 2009, is a matter for future research.

Conclusion

Between 1827 and 1855, Haslar Hospital Museum undoubtedly played an important role in the collection and interpretation of the voluminous natural history and other specimens then being acquired throughout the British Empire. The museum was not only recognised and respected by its better-known peers, but was a source of envy, and an important agent, in the museum-based development of early nineteenth-century imperial science. For reasons that remain ultimately mysterious, the museum's rearrangement in 1855 brought to an end a promising period in which the Royal Navy contributed to many of the most important scientific questions of the day. Whereas the Admiralty, Royal Navy and its sailors have conventionally been understood as 'fact gatherers' for metropolitan scientists in these years, this study of Haslar Hospital Museum has shown that the institution flourished as a space of enquiry in its own right. Owing to its expensive furnishings, dedicated keepers and unparalleled access to new and interesting specimens, Haslar Hospital Museum claimed to rival or even to surpass Britain's 'national collections', including those of the British Museum. The sheer enthusiasm displayed by the Navy's surgeons, and the considerable public audience which the collections attracted, prompt us to consider in a new light the provincial museums involved in circulating the specimens of the nineteenth-century British Empire.

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- ¹ Report from the Select Committee on the Condition, Management and Affairs of the British Museum (London, 1835), p. 225.
- ² See Fig. 3. The National Archives (hereafter TNA), 'Entry Book of Reports', ADM, 105/70. The museum was known by several titles. Its founder William Burnett variously referred to the institution as 'Haslar Hospital Museum' and 'The Museum of the Navy Medical Department'. This chapter uses the former title.
- ³ *Report*, op. cit. (note 1), p. 601.
- ⁴ For a summary, see G. Sculthorpe and M. Nugent (eds.), *Yurlmun: Mokare Mia Boodja* (Western Australian Museum, 2016).
- ⁵ In 1856, Augustus Wollaston Franks, of the British Museum, wrote to John Liddell to request the catalogue, but appears not to have received a reply. See British Museum (hereafter BM), Eth. Doc. 1171, A. W. Franks to J. Liddell, 22 Sep. 1856.
- ⁶ In total, 293 ethnographic objects were received by the British Museum in 1855. See BM, *Acquisitions General Antiquities: Jan. 1853 to Dec. 1855*, vol. 3 (London: British Museum, Dept of M&L Antiquities).
- ⁷ These points are explored in my PhD thesis, provisionally titled 'The Royal Navy and Colonial Collecting in Australia, c. 1772-1855' (Royal Holloway, University of London, 2017).
- ⁸ For a history of the library, see M. Lattimore, 'Early naval medical libraries, personal and corporate', *Journal of the Royal Naval Medical Service* 69 (1983), pp. 107–111.
- ⁹ Medical museums as a general category of analysis are also deserving of greater attention. Exceptions include E. Adams, 'Shaping, collecting and displaying medicine and architecture: A comparison of the Hunterian and Soane Museums', *Journal of the History of Collections 25* (2013), pp. 59–75.
- ¹⁰ For an analysis of this argument, see A.M. Lucas and P. J. Lucas, 'Natural History "collectors": exploring the ambiguities', *Archives of natural history 41* (2014), pp. 63–74.

 B. Latour, *Science in Action* (Harvard, 1987).
- ¹¹ J. Browne, 'Natural History collecting and the Biogeographical tradition', *Historia*, *Ciencias*, *Saude Manguinhos* 8 (2001), p. 960.
- J. Browne, 'A Science of Empire: British Biogeography before Darwin', *Revue d'Histoire des Sciences 45* (1992), pp. 453–475.
- ¹² See J. Ratcliff, 'The East India Company, the Company's Museum, and the Political Economy of Natural History in the Early Nineteenth Century', *Isis 107* (2016), pp. 495-517, and C. Wingfield, "Scarcely more than a Christian trophy case"? The global collections of the London Missionary Society museum (1814-1910)', *Journal of the History of Collections 29* (2017), pp. 109-128.
- ¹³ For popular histories of the hospital, see W. Tait, *A History of Haslar Hospital* (London, 1906); A. L. Revell, *Haslar. The Royal Hospital* (Gosport, 1978); E. Birbeck, A. Ward and P. Ward (eds.), *The Royal Hospital Haslar: A Pictorial History* (Stroud, 2013).
- ¹⁴ For details of Burnett's life and career, see D. McLean, *Surgeons of the Fleet: The Royal Navy and its Medics from Trafalgar to Jutland* (London, 2010).
- ¹⁵ For an account of surgical training in Portsmouth in this period, see R. Briddle, "As His was Not a Surgical Case it was Not My Duty to Attend Him": The Surgeon's Role in the Nineteenth-Century Royal Dockyards', *Medical History* 57 (2013), pp. 559–578.
- ¹⁶ The Caird Library & Archive (hereafter CLA), 'Victualling Board, In-Letters and Orders', ADM/C/749.

- ¹⁷ *The Lancet* (London, 1832), p. 635.
- ¹⁸ According to a card left in the museum's *Visitors' Books*. See, for example, Institute of Naval Medicine, Gosport (hereafter INM), *Visitors' Books* (hereafter VB), 28 May. 1838.
- ¹⁹ ADM, 105/70, op. cit. (note 2).
- ²⁰ Tait, op. cit. (note 13), p. 65.
- ²¹ Archives of the Royal Botanic Gardens, Kew (hereafter RBG), W. Burnett to W. T. Aiton, 4 Jan. 1828, Directors' Correspondence (hereafter DC), 44/54.
- ²² See for example, State Library of New South Wales, J. Barrow to P. P. King, 16 Apr. 1829, MLMSS, 4530/2.
- ²³ TNA, 'Alphabetical list of gentlemen attending introductory lectures', ADM 305/101.
- ²⁴ The New Monthly Magazine and Literary Journal (August, 1829), p. 372.
- ²⁵ H. Slight and J. Slight (eds.), *Chronicles of Portsmouth* (London, 1828), p. 131.
- ²⁶ ADM, 105/70, op. cit. (note 2).
- ²⁷ S. Sheets-Pyenson, *Cathedrals of Science* (Montreal, 1988), p. 38.
- ²⁸ Burnett to Aiton, op. cit. (note 21).
- ²⁹ ADM/C/749, op. cit. (note 16).

These included, but were not limited to, accusations that Burnett received a bribe of 'twenty or thirty pounds' in return for making a naval appointment in 1849. See *Medical Times 19* (1849), p. 281.

- ³⁰ See, for example, Cornwall Record Office, W. Burnett to C. T. Simpson, 25 Sep. 1841, MY/14/7/23.
- ³¹ See TNA, 'Entry Book of Reports' (various volumes), especially ADM, 105/68; 105/70; 105/71; 105/72; 105/73.
- ³² ADM, 105/70, op. cit. (note 2).
- ³³ ADM, 105/73, op. cit. (note 31).
- ³⁴ ADM, 105/73, op. cit. (note 31).
- ³⁵ ADM, 105/70, op. cit. (note 2).
- ³⁶ ADM, 105/70, op. cit. (note 2).
- ³⁷ A Visit to the United Services Institution in 1849 (London, 1849), p. 1.
- ³⁸ For a biography of Collie, see G. Chessell, *Alexander Collie: Surgeon, Naturalist & Explorer* (Perth, 2008). Sections of this chapter dealing with Collie's employment at and early collecting for Haslar are discussed in more detail in D. Simpson, 'For science, friendship or personal gain? Alexander Collie and the origins of naval ethnography at Haslar Hospital Museum', in G. Sculthorpe and M. Nugent (eds.), *Yurlmun: Mokare Mia Boodja* (Western Australian Museum, 2016), pp. 26–33.
- ³⁹ F. W. Beechey, Narrative of a Voyage to the Pacific and Beering's Strait (London, 1831), vol. 1, p. xi.
- ⁴⁰ *Report*, op. cit. (note 1), p. 243.
- ⁴¹ Quoted in Chessell, op. cit. (note 38), p. 101.

- ⁴² A. W. Franks, 'Further enquiries and observations on Ethnological Questions connected with Arctic Exploration', *The Journal of the Anthropological Institute of Great Britain and Ireland 2* (1873), 304.
- ⁴³ RBG, Collie to Hooker, 27 Dec. 1828, DC, 44/54.
- ⁴⁴ National Library of Australia, A. Collie, 'Letters 1828-1835' [transcription of original manuscript], MS 109, p. 9.
- ⁴⁵ British Museum, *List of the Specimens of Mammalia in the Collection of the British Museum* (London, 1843), p. 176.
- ⁴⁶ The majority of these collectors, and their collections, are listed in R. B. Hinds (ed.), *The Zoology of the Voyage of H.M.S. Sulphur*, vol. 1:1 (London, 1843).
- ⁴⁷ The Zoology of H.M.S. Sulphur, op. cit. (note 46).
- ⁴⁸ Report and Evidence of Committee on Position of Medical Officers of Army and Navy; Order in Council, July (London, 1866), p. 174.
- ⁴⁹ Ratcliff, op. cit. (note 12), p. 502.
- ⁵⁰ J. McIlraith, *Life of John Richardson* (London, 1868), p. 65.
- ⁵¹ J. Richardson, Fauna Boreali americana, 4 vols. (London, 1829-1837).
- ⁵² ADM, 105/68, op. cit. (note 31).
- ⁵³ British Museum, Return to an Order of the Honourable The House of Commons (London, 1857), p. 20.
- ⁵⁴ RBG, Richardson to Hooker, 20 Mar. 1841, DC, 63/365.
- ⁵⁵ Darwin Correspondence Project, Darwin to Richardson, 30 Dec. 1851, Letter no. 1466H, accessed on 28 April 2016, http://www.darwinproject.ac.uk/DCP-LETT-1466H.
- ⁵⁶ J. B. Richardson, 'A Visit to Haslar, 1916', Journal of the Royal Naval Medical Service 2 (1916), p. 333.
- ⁵⁷ RBG, Sinclair to Hooker, 2 Nov. 1842, DC, 69/308.
- ⁵⁸ *The Athenaeum 1306* (London, 1852), p. 1205.
- ⁵⁹ RBG, Richardson to Hooker, 31 Dec. 1843, DC, 63/372.
- ⁶⁰ RBG, Richardson to Hooker, 12 Jan. 1850, DC, 63/385.
- ⁶¹ J. Richardson, *The Zoology of the Voyage of H.M.S. Herald* (London, 1852). R. B. Hinds (ed.), *The Zoology of the Voyage of H.M.S. Sulphur*, vol.1:2 (London, 1844).
- ⁶² L. Huxley, *Life and letters of Thomas Henry Huxley*, vol. 1 (London, 1913), p. 27.
- ⁶³ ADM, 305/101, op. cit. (note 23). RBG, Richardson to Hooker, 30 Apr. 1838, DC, 62/120.
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- ⁷¹ A. Adams, W. B. Baikie and C. Barron (eds.), *A Manual of Natural History* (London, 1854).
- ⁷² A Manual of Natural History, op. cit. (note 71), p. 688.
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- ⁷⁸ I am grateful to Jane Wickenden, of the Institute of Naval Medicine, for identifying these records and for permitting access to them.
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- 80 Simpson, op. cit. (note 7).
- ⁸¹ See, for example, G. N. Swinney, 'A natural history collection in transition: Wyville Thomson and the relationship between the University of Edinburgh and the Edinburgh Museum of Science and Art', *Journal of the History of Collections 11* (1999), pp. 51–70.
- 82 The Lancet 2 (London, 1869), p. 239.
- 83 Richardson, op. cit. (note 56), p. 336.
- 84 The Times, 24 Apr. 1855.
- 85 McIlraith, op. cit. (note 50), p. 244.
- ⁸⁶ Tait, op. cit. (note 13), p. 67.
- ⁸⁷ Tait, op. cit. (note 13), p. 66.
- 88 Archives of the Natural History Museum, Barron to A. K. L. G. Günther, 5 Aug. 1868, DF, ZOO/200/1/68.