Knowing savagery: Australia and the anatomy of race

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Abstract

When Australia was circumnavigated by Europeans in 1801–02, French and British natural historians were unsure how to describe the Indigenous peoples who inhabited the land they charted and catalogued. Ideas of race and of savagery were freely deployed by both British and French, but a discursive shift was underway. While the concept of savagery had long been understood to apply to categories of human populations deemed to be in want of more historically advanced ‘civilisation’, the application of this term in the late 18th and early 19th centuries was increasingly being correlated with the emerging terminology of racial characteristics. The terminology of race was still remarkably fluid, and did not always imply fixed physical or mental endowments or racial hierarchies. Nonetheless, by means of this concept, natural historians began to conceptualise humanity as subject not only to historical gradations, but also to the environmental and climatic variations thought to determine race. This in turn meant that the degree of savagery or civilisation of different peoples could be understood through new criteria that enabled physical classification, in particular by reference to skin colour, hair, facial characteristics, skull morphology, or physical stature: the archetypal criteria of race. While race did not replace the language of savagery, in the early years of the 19th century savagery was re-inscribed by race.

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On 9 April 1802, two expeditions devoted to the natural historical and imperial ambitions of rival European powers met one another at what became known thereafter as ‘Encounter Bay’ on the southern coast of a land then named Terra Australis Incognita. The British expedition, led by Captain Matthew Flinders (1774–1814) in his vessel the Investigator, and the French, under Captain Nicholas Baudin (1754–1803) and his vessels the Naturaliste and the Géographe, were both seeking more definitive knowledge of a land that would eventually bear the name that Flinders intended for it: Australia. When the two expeditions met, they treated one another with a wary cordiality. Baudin hosted a visit from Flinders, who, not speaking French, took along with him the expedition’s naturalist, Robert Brown (1773–1858), as interpreter. A former student of the School of Medicine at the University of Edinburgh, Brown was to become a leading figure in British botany thanks in no small measure to his collection of over 3600 plant specimens from the Flinders expedition. As the two groups talked in the Captain’s cabin aboard the Géographe, anchored just off shore of a land they each believed belonged to their respective sovereigns, the subject of their conversation turned to the humanity of the Indigenous Australians. The French shared some of their arresting portraits of named Indigenous inhabitants they had met in Van Diemen’s Land (Tasmania), showing both their faces and their profiles (Lafont, 2013). For his part, Brown (2001[1801–05]: 178–9) seemed to think the portraits ‘characteristic but not well executed’, as well as misleading (in his view) for depicting the natives of Van Diemen’s Land as distinct from the ‘race’ who inhabited the mainland.

These two groups of Europeans, divided by national loyalty and scientific rivalry, were united in their presumption that the land and waters they were eagerly charting, naming, and claiming were theirs to possess, despite the fact that there were peoples already there, inhabiting the land mass and coastline. For both British and French, these Indigenous inhabitants were regarded as an inferior branch of the family tree of humanity, but what were the grounds for their supposed inferiority? Was it a matter of their purported ‘savagery’ or of their ‘race’? For Joseph Marie de Gérando (1772–1842), whose Considerations sur les methodes a suivre dans l’observation des peuples sauvages was written for the guidance of anthropological investigation on Baudin’s expedition, the issue of was one of ‘savagery’ – specifically, the presumed proximity of less advanced peoples to nature:

Of all the terms of comparison that we can choose, there is none more fascinating ... than that offered by savage peoples. Here we can remove first the variations pertaining to the climate, the organism, the habits of physical life, and we shall notice among nations much less developed by the effect of moral institutions, these natural variations are bound to emerge much more prominently: being less distinguished by secondary circumstances, they must chiefly be so by the first and fundamental circumstances belonging to the very
principle of existence. Here we shall be able to find the material needed to construct an exact scale of the various degrees of civilisation... (De Gérando, 1969[1800]: 62–3)

For his part, the leader of the expedition, Captain Baudin, doubted both the term itself and the imperial warrant Europeans founded on any presupposition of savagery. As he wrote to the Governor of the British colony of New South Wales, Philip Gidley King (1758–1808), savagery was a matter of European opinion:

I have never been able to conceive that Europeans have either justice or equity on their side when in the name of their governments they annex lands newly found by them, but already inhabited by men who do not always deserve the name of ‘savage’. (Baudin, 2016[1802]: 20–1)

Flinders (1966 [1814]: Vol. 2, 115, 138) himself charted this same variable conceptual terrain. With Brown on the Investigator in 1801–1803, he appeared to consider the ‘Australians’ they encountered as a ‘race’ whose features reflected their environment. Only a few years earlier in 1799, however, when sailing on another expedition aboard HMS Norfolk, Flinders considered their ‘savage’ condition a product their lack of society. The Judge Advocate of the early colony in Sydney, Captain David Collins (1756–1810), recorded that Flinders shared his suppositions about the Australians’ use of fishing nets:

Mr. Flinders was of opinion, that this mode of procuring their food would cause a characteristic difference between the manners, and perhaps the dispositions, of these people, and of those who mostly depend upon the spear... for a supply. In the one case, there must necessarily be the co-operation of two or more individuals; who therefore, from mutual necessity, would associate together. It is fair to suppose, that this association would, in the course of a few generations, if not much sooner, produce a favourable change in the manners and dispositions even of a savage. In the other case, the native who depends upon... his spear for his support depends upon his single arm, and, requiring not the aid of society, is indifferent about it, but prowls along, a gloomy, unsettled, and unsocial being. (Collins, 1971[1802]: 253–4)

In these fragmentary records lie key landmarks in a complicated discursive terrain then in the process of tectonic alteration. Ideas of race and savagery were freely deployed by both British and French expeditioners, but a discursive transition was underway (Douglas, 2013: 387–409; Gissis, 2011: 50). As the articles by Romano, Fur, and Sebastiani in this issue of *History of the Human Sciences* demonstrate, the concept of savagery had long been understood to apply to categories of human populations deemed to be in want of more historically advanced ‘civilisation’. We argue here that rather than a conceptual shift from one term to a newer one, there was a complex overlay of race onto the older notion of savagery (Buchan, 2008). The two early European voyages around Australia illustrate this messy mixing of terminology, even as race was gradually acquiring ever-greater explanatory weight. By examining the figure of Robert Brown, who has tended to be remembered primarily as a botanist, the emergence of race in explanations of human diversity in both colonial voyages and European Enlightenment thought can be traced.
Throughout the 18th century, savagery was a standard feature of ethnographic writing produced by both ‘savants sédentaires’ in Europe and the ‘observateurs au travail’ who fed them information from distant climes (Chappey, 2002: 193–204). This was a genuinely pan-European terminology, as the essays by Hodacs and Persson, Van Gent, and Irving-Stonebreaker in this issue illustrate, but from about the 1770s, a new terminology of racial characteristics began to gain influence, especially in the work of travellers trained in the taxonomic methods of natural history (Gissis, 2011: 88–93; Starbuck, 2013: 217–19). The terminology of race was still remarkably fluid, and did not always imply fixed physical or mental endowments or racial hierarchies (Gascoigne, 2014: 289–90; Staum, 2003: 24–6). Over the final decades of the 18th century and the early decades of the next, emergent ideas of race, which referred to physical or anatomical differences between populations, were overlaid onto savagery, with its focus on the different social and historical conditions exemplified by nations and peoples. Douglas (2003: 12) argues that the language employed by European travellers to describe Indigenous peoples evinced a ‘common slippage’ depending on the reception they received; nonetheless, the concept of race and the language of human varieties gradually assumed greater explanatory weight. Even where the terminology employed remained fairly stable, as in Flinders’ preference for the terms ‘natives’ and ‘indians’, or Brown’s consistent use of ‘natives’ to describe Indigenous Australians, race emerged as a crucial qualifier. Both men employed the term ‘race’ when accounting for the physical form of the people they encountered – so different in ‘complexion and appearance’ from themselves (Flinders, 1966[1814]: Vol. 1, 146).1 Race enabled colonial travellers and natural historians to conceptualise humanity as subject not only to historical gradations, but also to physical variations. The implication of the latter was that the degree of savagery or civilisation of different peoples could be correlated with criteria of physical classification, notably skin colour, hair, facial characteristics, skull morphology, or physical stature (Chappey, 2002: 259). While race did not become a replacement for the language of savagery, in the early years of the 19th century the idea of savagery was re-inscribed by race.

When Robert Brown wrote to his patron, Sir Joseph Banks (1743–1820), of his and Flinders’ encounter with the French expedition, he made special mention that among their natural historians and illustrators was one who was ‘an anthropologist’ (Brown, 2001[1802]: 206). This must have been a reference to François Péron (1775–1810), who was eventually to play a leading role in the publication of findings from the Baudin expedition in his *Voyage of Discovery to the Southern Lands*, published in two volumes in 1807 and 1816, respectively (the second complete edition was published in 1824). In the early 19th century, French intellectuals were instrumental in developing systematic anthropology, and the Baudin expedition was supplied with what must surely have been the most detailed and comprehensive ethnographic instructions provided to any expedition before 1800 (Gascoigne, 2003: 158–9; Harrison, 2009: 33–52). The instructions issued to Captain Baudin by the Secretary of the *Société des observateurs de l’homme*, L. F. Jauffret (1770–1840), were organised under seven headings, each focussed on a particular aspect of the individual and social lives of human beings (Jauffret, 2004[1974]: 594–6). The first of these dealt with enquiries to be made into the physical existence of ‘man’, not in terms of anatomical structure (which was reserved for separate enquiries), but in what can be observed, for example, of ‘the differences which give rise
to races and types’, or those between humans and animals, the sexes, and age groups. The remaining headings concerned observations of the expression of emotional, moral and spiritual awareness, and with observations of human movement and nutrition, adaptations to climate and the ‘exercise of reproduction’. Throughout these instructions, a tone of condescending but enlightened republican ‘philanthropy’ prevailed (Harrison, 2012: 40). The French were urged to treat the peoples they observed with ‘friendship’, and as curious specimens important to ‘the study of the science of man’. To that end, the instructions enjoined the expeditioners not only to make careful written and visual record of their observations, but to collect artefacts, including human remains, for further study. The aim was to amass reliable data that could only be properly organised and arranged by the sedentary savants back in Paris (Chappey, 2002: 309). To this end, living specimens were requested:

Dare we express the desire to see our illustrious correspondent imitate this conduct and send us any specimens of the human varieties which he may discover? These strangers would be particularly welcomed by the observers of mankind, and if our hospitable attentions could persuade them to stay and agree, by adopting our country, to put an immense distance between their cradle and their grave, their remains, later cherished and preserved through the genius of science and the requirements of a gentle sensibility, would find a place in our museum amongst the articles from their homeland, of which they would then complete the picture. (Jauffret, 2004[1974]: 594–6)

François Péron’s journal is suffused with a similar spirit. His attitude to the peoples of Van Diemen’s Land, for example, was framed by a palpable sense that they were far less civilised and more savage than he and his European companions (Plomley, 1983: 82, 86, 93). Far from representing a divergence from Enlightenment universalism, Péron’s attitude exemplified it (Fornasiero, Monteath and West-Sooby, 2004: 356). He wasted no opportunity to remind his readers that Europeans and ‘Vandiemites’ were all peoples with the same foibles and fancies, virtues and vices (Péron, 2016[1824]: Vol. 1, 181–2). Péron’s observations were not limited to this kind of cross-cultural comparison, however. On his departure, he had been supplied with a ‘dynamometer’, a piece of equipment specially made to measure the physical strength of peoples (both British colonists and ‘native’ peoples) he encountered. By doing so, Péron sought to match his interpretation of the savagery of the peoples he met with a supposedly objective measure of physical condition that he assumed was indicative of the race to which his subjects belonged. Péron was convinced that the peoples of Van Diemen’s Land and those on the mainland belonged to separate races identifiable primarily by different complexions, hair, and skull measurements (ibid.: 353–4). He seems to have considered these features modifiable if only a more productive means of subsistence (such as European-style agriculture or animal husbandry) could be adopted. As they were, however, he believed both peoples exhibited a condition of life in which the physical markers of race were also indicators of the boundary between savagery and civilisation. Referring no doubt to Rousseau, Péron reflected that to ‘claim for the savage every source of happiness and every principle of virtue’ was to ‘lament the progress of civilisation and sigh after that miserable state, made famous by the seductive name of the state of nature’ (ibid.: 351).
Nowhere, he argued, were the baleful effects of savage life more aptly displayed than in the measurement of ‘physical strength’, which he believed was an indelible sign of health, happiness, and level of civilisation. According to him, the measurements he obtained from subjects (whom he invariably described as ‘savages’) in Van Diemen’s Land and on the mainland indicated that they were ‘incomparably less civilised than the French and English’ (ibid.: 369). Feebleness, he argued, was a product of the harshness of the environment in which ‘savages’ lived. Péron erroneously assumed that there were next to no reliable food sources to be obtained throughout Australia, and that exposure to the harshness of the climate and the rigours of the perpetual search for scarce food resulted in the savage and racial features he attributed to the peoples he encountered. All that was lacking to change this situation, he asserted, was the willingness to ‘abandon their fierce, vagabond ways’ by forming larger tribes and settling in villages, ending ‘those everlasting and bloody wars’ that are the inevitable lot among Europe’s presupposed savages. Péron also thought this speculative process of civilisation would alter the physical and racial characteristics of the people themselves, allowing their ‘constitution’ to ‘grow more robust’, for individual strength to increase, and for what he considered to be the bodily ‘imperfections in... build’ among the races to gradually abate (ibid.: 367–8).

It is important here to emphasise that race and savagery did not represent entirely divergent trends in Enlightenment thought (Fornasiero, Monteath and West-Sooby, 2004: 354; Hughes, 1988: 28–9). Rather, as Péron’s attitude illustrates, the characteristics of both savagery and race were interwoven, and each were thought to be modifiable by means of human ingenuity. Among the other instructions drawn up for the Baudin expedition was An Instructive Note on the Research to Be Made Concerning the Anatomical Differences of the Various Races of Men, dated 1799, and authored by one of Europe’s leading anatomists, Georges Cuvier (1769–1832). Cuvier’s instructions were concerned with forming a definite identification of the different ‘races’ of humanity (Cuvier, 1798: 264). Cuvier lamented that there were restrictions on what could be accomplished:

Men themselves, gathered alive, would doubtless be the best materials for an exact comparison of the various varieties of the human species; but not to mention the insurmountable difficulties of a meeting of this nature, it is not lawful for us, even when we could, to sacrifice happiness, or even to violate the will of our fellow-men to satisfy a mere philosophical curiosity. (ibid.: 266–7)

In place of live specimens, Cuvier satisfied himself with portraits, but he lavished particular attention on their production. Each portrait had to include the frontal aspect of the subject’s face as well as their profile, precisely measured according to the technique of calculating facial angles proposed by the Dutch anatomist Petrus Camper (1722–89). Any distinctive hairstyles, tattoos, or ornaments that ‘serve only to mask the true character of the physiognomy’ had to be removed from the portraits so that the physical shape of the head and facial features could be portrayed clearly (ibid.: 267). This attention to detail was considered necessary in order to prevent the scientific errors committed by other artists in failing to distinguish between human varieties. ‘Everybody
knows’, Cuvier wrote, ‘that the greatest painters have often misunderstood the character of the Negro and have painted only a White smeared with soot’ (ibid.: 266).

In addition to the production of scientific portraits, Cuvier requested the collection of physical specimens, most importantly skulls, the scientific comparison of which he thought Johan Friedrich Blumenbach (1752–1840) had demonstrated to great effect. Cuvier’s avidity here was particularly notable: ‘travelers should not neglect any opportunity when they can visit places where the dead are deposited’, so that bones might be taken and catalogued. ‘Whole skeletons would be infinitely precious’, as no scholar had yet been able to write ‘a detailed comparison of the skeleton of the Negro and that of the White’ (Cuvier, 1798: 268). Cuvier urged that no impediment should be allowed to stand in the way of this scientific task, not even the sentiments of the French crew who might object to the preparation of human cadavers aboard ship:

> Perhaps the sailors will oppose the operations to be accomplished on the ship, which seem to them barbarous; but in an expedition which has for its object the advancement of the sciences, the principals must be governed only by reason, and know how to inspire their crews with it. (ibid.)

The modern reader cannot escape the irony in Cuvier’s disdain for the judgement of sailors – his social inferiors – that the ‘civilised’ pursuit of anatomical investigation into the racial identity of ‘savage’ peoples would appear ‘barbarous’ to the unlearned. Behind Cuvier’s avidity and ambition lay the physiological question of race and variety. In the late 18th century, the morphology of racial and varietal characteristics (such as hair, complexion, stature and skull shape) were considered to be plastic, and therefore to some degree alterable by action of climate or human behaviour. In that sense, Cuvier could speak of the ‘crushed form of the face’ among some races that had ‘long been attributed to the mechanical compression exercised upon the children’, which over generations ‘had its effects even on the bony framework of the head’ (ibid.: 264-5). In other words, Cuvier wanted skulls in order to ‘scientifically’ study racial characteristics which were understood not simply as physiological or anatomical criteria, but as the physical traces of the generational accumulation of climatic, dietary, and even deliberate human action and effects on the human form (Chappey, 2002: 257). For Cuvier, race and savagery were indistinguishable, and this presented a unique problem for late Enlightenment natural historians. It is our contention that Cuvier’s problem, that of the relationship of savagery to race, highlights an axis of tension in European thought that we will explore in the distinctive combination of natural history with moral philosophy in the Scottish Enlightenment.

By contrast with the Baudin expedition, Flinders’ expedition was relatively poorly equipped with instructions. The Admiralty instructions, which may have been drafted with the advice of the President of the Royal Society, Sir Joseph Banks (1743–1820), did require the participants on the Investigator to provide a ‘full and complete’ account of ‘the manners and customs of the inhabitants of such parts as you may be able to explore’ (quoted in Flinders, 1966[1814]: 9–12; Morgan, 2014: 235–64). Reflecting earlier instructions issued to Archibald Menzies (1754–1842) on the Vancouver expedition in the 1790s, the instructions issued to Flinders said little about anthropological matters,
placing a greater emphasis on the treatment of the botanical collection to be made during the expedition. As a principal patron of natural historical knowledge throughout his 41-year tenure as President of the Royal Society, Banks placed Linnaean taxonomy at the centre of British natural history and colonial travel. As an intellectual framework for natural history, Linnaean taxonomy was not purely botanical, but also incorporated an ethnographic dimension (Andersson Burnett and Buchan, 2018; Gascoigne, 2003). Carl Linnaeus himself (1707–78) had classified and ranked humans as well as plants and animals in his *Systema Naturae* (1735). Linnaeus (1759[1741]; 2016[1759]) also addressed the question of how to study human subjects in situ, a subject he returned to in his *Oration Concerning the Necessity of Travelling in One’s Own Country* (1741) and in *Instructions for Travelling Natural Historians* (1759). The ‘complete Linnaean naturalist’, to quote John Gascoigne, was therefore expected not only to collect, study, and classify plants and minerals, but also to study humanity and collect ethnographic artefacts (Gascoigne, 2003: 137; Blunt, 2001). Indeed, Banks became a crucial broker of collected artefacts and human remains that circulated the globe from a wide variety of colonial settings to intellectual centres such as London, Göttingen, and Edinburgh (Gascoigne, 2003: 148–54; Miller, 1996: 21–37). Among the naturalists who collected and transported these items in a wide variety of colonial settings were a significant number, such as Robert Brown, who had been educated at the University of Edinburgh (Andersson Burnett and Buchan, 2018).

The University was one of the most vibrant and influential institutions of learning in Europe. It provided a focal point for the intellectual life of an exceptionally lively community of Scots scholars, many of whom, as Silvia Sebastiani has demonstrated, saw themselves as contributors to the natural history of humankind. The teaching of moral philosophy at Edinburgh was also framed as ‘the science of man’, with more in common with the orientation of natural history than one might suppose. Indeed, Silvia Sebastiani (2013: 45–71) has defined Scottish stadial history – developed and employed by Adam Smith (1723–90) in his *Lectures on Jurisprudence* in 1761–63 and widely adapted by philosophers and historians such as David Hume (1711–76), Adam Ferguson (1723–1816), William Robertson (1721–93), and James Millar (1735–1801) – as a ‘natural history’, in that it classified and described creation and highlighted natural rather than divine causes of the development of societies. Henry Home, Lord Kames (1696–1782), for instance, intended that his *Sketches of the History of Man* (1778) should be a natural history of how ‘mankind’ had progressed, while Adam Ferguson adopted the method of natural history to combine ‘conjecture’ with factual ‘observation’ in his *Essay on the History of Civil Society* (1967[1767]) (Home, 2007[1778]: 223–4; Ferguson, 1967[1767]: 2; Wood, 1996: 205). In his lectures on moral philosophy, Ferguson likewise presented ‘Pneumatics...or the physical science of mind’ as the ‘foundation of moral philosophy’, and his lectures incorporated racial taxonomies drawn from both Linnaeus and Buffon (Ferguson, 1800[1769]: 10, 13, 16–17). Natural historians were correspondingly inspired by their colleagues and friends who taught stadial theory (Eddy, 2008). The professor of natural history between 1779 and 1803, the Reverend John Walker (1731–1803), included in his own inventories of the Scottish Highlands and Islands detailed ethnographic observations on the region’s inhabitants that would help to illustrate the ‘progress of human life from Infancy to manhood’.³
At the heart of this intellectual endeavour lay a widely shared adoption of the method of taxonomic study integral to the formation of natural historical knowledge. Stadial models of historical progress were based on an interpretation of historical data on the basis that all human societies progress through stages of development from ‘savagery’ to ‘civilisation’. Underpinning the stadial view was a fundamental assumption that human societies were the product of a universal humanity, which David Hume had formulated in his *Treatise on Human Nature* in 1739–40:

> It is universally acknowledged that there is a great uniformity among the actions of man, in all nations and ages, and that human nature remains still the same, in its principles and operations. (Hume, 1975[1739–40]: 83)

Scottish stadial thinking took shape around the belief that societies in different stages of development could co-exist at the same time and that more or less all people passed through the same stages of development, which could be discerned and studied by means of natural historical observation and classification. Different models of taxonomy circulated among the intellectuals of Edinburgh, linking them to much broader European debates on the best way to classify and order the natural and physical world. The nosology of human diseases of William Cullen (1710–90), a leading figure in Edinburgh’s School of Medicine, was, for example, a product of his ‘intimate acquaintance’ with ‘the different branches of Natural History’ (Thomson, 1832: 2). Cullen in fact collaborated with Walker in the 1750s in adapting a new scheme for classifying fossils into Classes, Orders, Genera, Species, and Varieties. This fivefold division, though arbitrary, is excellent, and has now, from experience, been found the best in the arrangement of natural bodies. It is even applicable and commodious in other departments of science. (Walker, quoted in Thomson, 1832: 693, 729–30)

In speaking of a five-fold classification, Walker here adverted to his and Cullen’s adoption of the taxonomic system of Linnaeus (Eddy, 2008: 25).

In speculating on the relationship between species and varieties in particular, Walker and Cullen addressed a key matter of debate among European natural historians. Whereas each of the classifications from classes to species were thought to indicate the invariable criteria endowed by nature, ‘varieties’ were thought to be distinguished by modifications of nature ‘by means of contingent forces such as climate and soil’, enabling further variation by mixing to create ‘hybrids’ (Lehleiter, 2014: 192). When applied to the classification of human beings in particular, the identification of ‘variety’ was held to depend on the variable effects of climate, air, diet, or manner of life that manifested in the skin colour, hair, stature and size, and above all the facial structure and skull morphology of the various supposed ‘races’ (Turnbull, 2007). The Comte de Buffon (1707–88) had claimed in his *Of the Varieties in the Human Species* of 1749 that climate, nutrition, and manners and customs were the active principles leading to changes in skin colour and hair, all of which he understood as indicators of a degenerative descent from humanity’s monogenic origins (Buffon, 1785: 60–70, 170–80, 205–7). Speculation on the nature and causes of these varieties was a central feature
of the intellectual life of Edinburgh in the late 18th century. Walker himself exemplified this speculation. He disagreed, for example, with Linnaeus’ notion that humans and simians could be classified under the same genus, while he regarded Buffon as a symbol of empty theorising (Eddy, 2008: 164). An accurate taxonomy of varieties had to hinge not just on morphological descriptors, but on the systematic identification and classification of internal, anatomical features (ibid.: 33).

Carlos López-Beltrán (1994: 213; 2007: 8–28) has amply demonstrated that physicians, with their particular concern to identify the precise influence of and interaction between innate and environmental conditions in the ill-health of individual patients, were at the intellectual forefront of the emergence of new ideas of heredity and a renewed focus on anatomical science.6 This development was integral to the medical curriculum at Edinburgh. Over the second half of the 18th century, the Medical School garnered a world-leading reputation, attracting students not only from Scotland, but from all over Britain and Ireland, from Europe, and from the various colonial societies in North and South America as well (Rosner, 1992: 20–1). There was no necessarily sequential order to the curriculum, and students were strongly recommended to combine their medical courses with natural and moral philosophy (Gregory, 1770; Johnson, 1792: 72–4). The parallels between medicine and moral philosophy were not merely coincidental. Throughout the later decades of the 18th century, both medicine and moral philosophy were understood as progressive sciences, based on the articulation of universal principles derived from an intimate study of nature, human nature, and human health relying on close observation and empirical analysis (Eddy, 2008; Haakonssen, 1996; Kidd, 2006). Lisbeth Haakonssen (1997: 56) has noted that Scottish Enlightenment moral philosophy was ‘like natural philosophy . . . an empirical science based on induction. The subject of morals was man’s particular nature and the exploration of his nature began with matters of fact’. Moral philosophy was literally inscribed on the body. Virtue, as Adam Ferguson (1967[1767]: 117–18) expressed it, had its own particular anatomy:

That the temper of the heart, and the intellectual operations of the mind, are, in some measure, dependent on the state of the animal organs, is well known from experience. Men differ from themselves in sickness and in health; under a change of diet, of air, and of exercise . . .

The lines of causation between environment and virtue were by no means clear. This was an enticing field of speculation for Scottish moral philosophers and medical practitioners alike. Race and human variety were integral features of the moral philosophy classes taught by Adam Ferguson until his retirement in 1785, and by his successor to the University’s chair of moral philosophy, Dugald Stewart (1753–1828) between 1785 and 1810 (Andersson Burnett and Buchan, 2018).

We know little of Robert Brown’s formal education at Edinburgh before he left the University in 1793 without graduating. What we do know is that as a medical student he was enrolled in the Reverend Walker’s course in natural history in 1792 (a year after another medical student who was to become a travelling naturalist, Mungo Park) (Eddy, 2003: 99, 108). Brown also devoted himself at the University to the study of botany, and
was able to apply the taxonomic method in his own botanical fieldwork conducted while serving as a regimental surgeon with the Fifeshire Fencibles in Ireland in 1795. One of the most important signs of the influence of his Edinburgh experience, however, was his active pursuit of private research over subsequent years that reflected the University’s blending of medicine, natural history, stadial theory, and moral philosophy. His personal library, for instance, contained Adam Smith’s *Wealth of Nations* and *Theory of the Moral Sentiments*, Hume’s *Essays*, Dugald Stewart’s *Outlines of Moral Philosophy*, along with Linnaeus’s *Systema vegetabilium*, Jussieu’s *Genera plantarum*, Benjamin Bell’s *System of Surgery*, Cullen’s *Practise of physic* and *Lectures on materia medica*, and John Aitken’s *Principles of Anatomy* (Mabberley, 1985: 32–4). As he prepared for fieldwork in Australia while the *Investigator* crossed the Equator and made its way toward the south Atlantic, Brown pursued a rigorous course of reading that exemplified this same intellectual orientation. His ship-board course of reading took him from metropolitan authorities (De Pauw, Buffon, De Gérando) to travelling natural historians (Johann and Georg Forster), paired with physicians and anatomists (Cuvier, White) and complemented by Scottish stadial theory, most notably in Adam Ferguson’s *Essay on the History of Civil Society*.

The combination of Scottish moral, historical, economic, and social thought with the methods of natural history and medicine was itself a product of the profound shifts that had taken place in European scientific thought over the previous 200 years (Golinski, 2011: 225). The rise of mechanics in the 17th century seemed to provide a universal guide for knowledge of the natural world, including the human body (Gaukroger, 2010: 293–4). One of the effects of this development was to trace newer and clearer lines of causation in the internal structure of the human body (Cottom, 2001: 10). Not only did medicine provide insight into the sickness and health of the human frame, it was based on the idea that diagnosis required a mind trained in the techniques of studying humans in situ. The physician was supposed to apply their knowledge of medicine to the unique characteristics of the patients they treated and the specific conditions of life that had a direct bearing on their health and ill-health. Those conditions included everything from climate and diet to habits and dispositions (Gregory, 1772: 12–14). It was in this sense that the concept of race itself was understood both anatomically and morally, in terms of its variable traces on the human form requiring a close study of the multitude of human varieties.

The attempt to catalogue the physical markers of human variety was a feature of the lectures in anatomy given by Alexander Monro ‘secundus’ (1733–1817), who succeeded his father (Alexander Monro ‘primus’, 1697–1767) to the chair of anatomy in 1759. According to his son and successor, Monro ‘tertius’ (1773–1859), Monro ‘secundus’, ‘in his lectures, used to describe and exhibit the diversity in the forms of the skulls of different nations, which he imputed very much to the powerful influence of posture and pressure applied to the head. On this principle, he explained the cause of the round head of the Turk, from the influence of the pressure of the turban’ (Monro, 1840: xcix). In using skulls to map human difference, Monro ‘secundus’ was following the precedent established by his friend Petrus Camper, who used skull morphology and measurements of ‘facial angle’ to separate the various human races from one another, and from the apes (Camper, 1794: 59–64; Cogan, 1794: xi; Meijer, 1999: 168). Similarly, in his *De Generis
Humani Varietate Nativa (1775), Johann Friedrich Blumenbach argued that the human varieties were arbitrarily defined, and pointed to differences in the shape and structure of human skulls as points of demarcation (Blumenbach, 1865[1775]: 98–9, 101, 117–19). By century’s end, inferences about racial difference drawn from skull morphology had become an established feature of European anatomy and natural history, demonstrated (as we have seen) in the work of George Cuvier (1798: 71).

In the last decades of the 18th century in Scotland, however, the notion of race was still understood as an effect not so much of firm physical endowments, but of the slow action of variable factors such as climate, diet, and social modes of life (López-Beltrán, 2002: 67–75). In 1775, John Hunter (1754–1809) (not the famed anatomist of the same name) took his medical degree at Edinburgh with a dissertation on human varieties, De Hominum Varietatibus et harum causis. Here Hunter argued that the ‘mode of life’, the degree to which one was exposed to sun and soil, determined skin colour (1865[1775]: 375, 387). In his ‘Natural History of the Inhabitants of the Highlands’, Walker noted likewise that the harsh weather and mountainous terrain of the Highlands formed the physiognomy of the Highlanders. He considered their ‘strong features’ to be hereditary: ‘This roughness of visage, created by mere roughness of weather, descends upon the offspring. And hence, the rudeness of the climate passes into the aspect of the inhabitants’. It was only by ‘slow Degrees’, Walker wrote, that any ‘considerable alteration of aspect’ was achieved in ‘any Race of Men’; their correct observation and classification according to a systematic scheme was therefore an important indication of the deep history of a people. Although Walker acknowledged different races, as a clergyman he continued to believe that there was only one human species. His close friend and patron, Lord Kames, argued that climate alone could not explain the physical differences between races and was, unlike Walker, an early polygenist.

For late-18th-century Scottish natural historians, race and human variation represented a taxonomic puzzle. There was no stable or commonly shared definition. There is, however, a marked difference separating the 18th-century natural historical discourse of race from later 19th-century invocations of race that identified fixed barriers between purportedly ‘superior’ and ‘inferior’ races. What 18th-century Scottish natural historians pondered was not primarily the gradations of being, but the proper classification of beings. Race was not yet the determinant of one’s physical and intellectual endowments, but one among a number of markers of one’s physical, intellectual and cultural differences from others. In that sense, Scottish natural historians such as Walker (1808: 409, 411) continued to identify physical, social, and even moral criteria as indexes of racial classification. Race, like language, institutions of government, or methods of warfare, was an ethnographic criterion like any other, subject to the vagaries of nature, such as climate and geography, but simultaneously to human mores and morals, laws, and literature. Toward the end of the 18th century, however, a gradual shift was underway toward a harder discourse of race that reflected the growing emphasis placed on the supposed anatomical markers of racial difference. This shift was especially apparent in France in the work of Cuvier. Nonetheless, as the varied instructions to the Baudin expedition reveal, even here an older and more variable discourse of savagery still had purchase even as a more rigid discourse of race emerged. This debate was far from an insular French, or even Continental European, concern. The figure of Robert Brown
illustrates that this discursive shift was also taking place in Scottish Enlightenment
time, medical, moral philosophy, and natural history.

In the early weeks of the Flinders expedition, Brown used his time for research to
prepare for the tasks ahead. It is striking that his own account of what he read, and the
extent of his personal library on the voyage, was dominated by texts relating to what the
French were then calling ‘anthropology’. Brown was able to read French, and he carried
with him and consulted a number of French and European works, among them the Comte
de Buffon’s *Discours sur le style* and his *Théorie de la terre*, and Cornelius de Pauw’s
*Recherches sur les Américains*, whose account of the climatic effects on human com-
plexion, ‘Du Climat de l’Amérique de la complexion altérée de ses habitants de la
découverte du nouveau Monde’, was of particular interest (Brown, 2001[1801–05]:
33, 35, 37). Among all his reading, however, two French authorities were salient. He
appears to have carried with him an early English translation of the *Lectures on Com-
parative Anatomy Translated From the French of G. Cuvier*, in two volumes (1802). The
other French authority he consulted was Joseph Marie de Gérando, specifically his *Des
Signes et de l’Art de penser considérés dans leurs rapports mutuels*, published in 1799,
which was suffused with the belief that language could be harnessed for the ‘perfecti-
bilité de l’esprit humain’ (ibid.: 52). What Brown took from his reading is a matter for
speculation, but between these two authorities lies the tension at the heart of late Enlight-
enment discourse on humanity. On the one hand was the fixation of Cuvier on the
physiognomic and anatomical study of ‘race’, and on the other, de Gérando’s emphasis
on the observation of ‘savagery’. In the very early years of the 19th century, however, the
historical demarcation of savagery was gradually being overwritten by the physical
delineation of race, which placed a premium on collecting – of both skulls and languages
(Turnbull, 2017: 72–6). Both could be decoded and traced through their nearest resem-
blances to reconstruct the pathway a people had taken through history, from their distant
origins to their present state, thus supposedly explaining racial and national variety.
Brown collected both skulls and vocabularies in Australia, and it is notable that his most
extensive list of words was dominated by botanical names, as well as terms for the
‘External parts of the Body’ (Brown, 2001[1801–05]: 231, 356–8). Even when collecting
language, it would appear that Brown sought information about the peoples he encoun-
tered in their very bodies. The records and the silences in Brown’s own notes are
illustrative of his anatomical collecting. Among them, one incident stands out.

On 21 January 1803, Brown and Flinders each recorded a violent encounter between the
Indigenous inhabitants and a party of sailors out collecting wood at a place Flinders named
Blue Mud Bay (on the coast of what is now Arnhem Land, in the Northern Territory of
Australia). Both Brown and Flinders were mystified by the courage and aggression of the
Indigenous people, who not only stood their ground when fired upon, but forced the sailors
to withdraw, wounding at least one with numerous spears. At a subsequent encounter that
day, an Indigenous warrior was shot and killed when paddling away in a canoe. Flinders
commanded his men to return to the beach the next day to retrieve ‘the dead body of the
native’ (ibid.: 346). A body was indeed found, as Brown described it, ‘washd up upon the
beach’ (ibid.: 348). The artist aboard the *Investigator*, William Westall (1781–1850),
provided a sketch of the dead warrior’s body on the sand (Findlay, 1998: 34). Westall
depicted the prone body of the warrior with a severed foot in the foreground, hinting at the
real purpose behind the recovery of the body. It was not for Westall’s artistic depiction, but to serve what Flinders (1966[1814]: 197–8) allusively described as the ‘anatomical purposes’ of the ‘naturalist and surgeon’. Brown accompanied the expedition to recover the warrior’s body, and it was Brown’s botanical assistant, Peter Good (died 1803), who recorded that ‘the Surgeon [Hugh Bell] Cut off his Head & took out his Heart & put them in Spirits’ for an anatomical collection (Good, 1981: 112).10

This grisly work on the shore, and Westall’s portrait of the warrior’s butchered humanity, seemed to lend credence to Cuvier’s concern that the quest for scientific knowledge would appear barbarous to the unlearned. Yet his body was taken aboard ship. He was not the only person to die on that fateful day. A British sailor, Thomas Morgan, also died ‘in a frenzy’ that night from the effects of sunstroke. Flinders (1966[1814]: 198) recorded that after the dead warrior’s body had been anatomized, Morgan’s body was ‘committed to the deep with the usual ceremony’, and a nearby island was named Morgan’s Island in his honour. Neither Flinders or Brown, but a sailor aboard the Investigator, Samuel Smith (2003: 58), recorded that after the ceremony, the dead warrior’s butchered body ‘was hove overboard & seen to be devour’d by Shirks [sharks]’. These two bodies, and their respective fates, tell a powerful story. One served to remind the Europeans of their own civilisation; it became the subject of a ritual that conferred meaning, and on naval charts from that day forward, it became a talisman of European claims to sovereignty over the land and its people. The unnamed warrior’s body left on the shore by the receding tide in Blue Mud Bay became a talisman for something quite different. It symbolised a profound discursive shift that was in due course to be disastrously inscribed on the destiny of Australia’s original inhabitants. While Brown himself remained silent about this encounter, Good’s testimony powerfully suggests that Brown thought no more words were needed. Knowledge of humanity was to be sought not in a descriptive catalogue of ‘savagery’, but in the precise anatomy of ‘race’.

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Notes
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1. This comment is from an entry for Thursday 4 March 1802. Though usually referring to the Indigenous peoples seen or encountered as ‘Indians’, Flinders also occasionally employed the term ‘race’, and also described their physical features by comparison with Europeans.

2. We have used the copy of the instructions reprinted in Maurice Girard’s F. Péron, naturaliste, voyageur aux Terres australes (1857: 264–69). This translation is our own.

3. Walker, J. (1774) ‘Natural History of the Inhabitants of the Highlands’, Walker Papers, Edinburgh University Library, EUL Dc. 1.18.

4. Ferguson’s successor as professor, Dugald Stewart, later gave this orientation the name ‘conjectural history’ in his lectures on moral philosophy in 1789–90, in which he maintained that the ‘chasms’ of knowledge in ancient written records and in contemporary travellers’ observations of ‘man in a Savage State’ required the ‘Philosopher’ to supply the deficiency ‘by conjecture & such kind of writing may be called conjectural history. It has been successfully used by D’allembert . . ., Mr Hume in his Natural History of Religion, Mr Smith, Lord Kaimes Etc’. See Stewart, D. (1789–90) Lectures on Moral Philosophy Delivered by Professor Dugald Stewart, session 1789 & 1790, Vol. 1., Edinburgh University Library, EUL. Gen. 1987-9.

5. Two of the most influential of these were the five-fold system of classifying human ‘races’ proposed by Carl Linnaeus, and the earlier six-fold classification into ‘varieties’ by the Comte de Buffon. Linnaeus’ influence at the University was consolidated in the teaching of natural history by John Walker and in botany by John Hope. Buffon’s influence was conveyed in part by William Smellie (1740–95), who had competed against Walker unsuccessfully for the chair in natural history. Smellie produced the first English translation of Buffon in 1785, and went on produce much of the text for the landmark second edition of the Encyclopedia Britannica, in which Buffon’s influence can be detected in the entries for ‘American’, ‘Complexion’ and ‘Negroes’ (Popkin, 1973: 249).

6. On the importance of anatomical science to the definition of humanity, see the article by Silvia Sebastiani in this issue.

7. Walker, 1774 (see note 3).

8. The articles by Romano, Van Gent, Fur, Irving-Stonebreaker, and Hodacs and Persson each illustrate the resonances of savagery in European and global contexts across a very longue durée.

9. Brown’s volume was possibly Cornelius de Pauw’s Recherches philosophiques sur les Américains, ou Mémoires intéressants pour servir à l’Histoire de l’Espèce Humaine. Avec une Dissertation sur l’Amérique & les Américains of 1771. Buffon’s Discours sur le style was originally delivered to the Académie française in 1753 and subsequently published. His Théorie de la terre was included as part of his monumental 36-volume Histoire naturelle, générale et particulière.

10. It is not clear where the Blue Mud Bay warrior’s remains ultimately ended up, though Turnbull (2017: 68) speculates that it is possible they may have been given to Joseph Banks. Many of the human remains collected through Banks’ networks were placed in the Hunterian Museum in London (Gascoigne, 2003: 154; Miller, 1996: 32). In 1803, Banks reported to Governor King in Sydney that the ‘consignment’ of a ‘New Hollander’s Head in spirits was very acceptable to our anthropological collections and makes a figure in the museum of the later Mr. Hunter, now purchased by the public’ (quoted in Gascoigne, 2003: 154).

References
Andersson Burnett, L. and Buchan, B. (2018) The Edinburgh Connection: Linnaean Natural History, Scottish Moral Philosophy and the Colonial Implications of Enlightenment
Thought’, in H. Hodacs, K. Nyberg and S. Van Damme (eds) Linnaeus, Natural History and the Circulation of Knowledge. Oxford: Voltaire Foundation, pp. 161–86.

Baudin, N. (2016[1802]) ‘Letter to Philip Gidley King, 24 December 1802’, in Reflections of a Philosophical Voyager, trans. J. Fornasiero. Adelaide: Friends of the State Library of South Australia, pp. 19–31.

Blumenbach, J. F. (1865[1775]) De Generis Humani Varietate Nativa [The Origin of Natural Human Varieties] in The Anthropological Treatises of Blumenbach and Hunter, trans. T. Bendyshe. London: Longman, Green, Longmand, Roberts and Green.

Blunt, W. and Stearne, W. T. (2001[1971]) The Compleat Naturalist, A Life of Linnaeus. Princeton: Princeton University Press.

Brown, R. (2001[1801–05]) Nature’s Investigator: The Diary of Robert Brown in Australia, 1801–1805, ed. T. G. Vallance, D. T. Moore and E. W. Groves. Canberra: Australian Biological Resources Study.

Buchan, B. (2008) The Empire of Political Thought: Indigenous Australians and the Language of Colonial Government. London: Pickering & Chatto.

Buffon, G. L. L. (1785) Natural History, General and Particular (2nd ed., Vols 1–9), trans. W. Smellie. London: W. Strahan and T. Cadell.

Camper, P. (1794) ‘A Treatise on the Natural Difference of Features in Persons of Different Countries and Periods of Life’, in The Works of the Late Professor Camper on the Connexion Between the Science of Anatomy and the Arts of Drawing, Painting, Statuary, etc. in Two Books, trans. T. Cogan. London: C. Dilly.

Chappey, J.-L. (2002) La société des observateurs de l’homme, 1799–1804. Des anthropologues au temps de Bonaparte [The Society for the Observation of Man, 1799–1804: Anthropologists in the Time of Bonaparte]. Paris: Société des études robespierristes.

Cogan, T. (1794) ‘Preface’, in The Works of the Late Professor Camper on the Connexion Between the Science of Anatomy and the Arts of Drawing, Painting, Statuary, etc. in Two Books, trans. T. Cogan. London: C. Dilly.

Collins, D. (1971[1802]) An Account of the English Colony in New South Wales: Vol. 2. Adelaide: Libraries Board of South Australia, pp. 253–4.

Cottom, D. (2001) Cannibals and Philosophers: Bodies of Enlightenment. Baltimore: Johns Hopkins University Press.

Cuvier, G. (1798) Tableau elementaire de l’histoire naturelle des animaux [Elementary Table of the Natural History of Animals]. Paris: Baudoin.

De Gérando, J. M. (1969[1800]) The Observation of Savage Peoples, trans. F. C. T. Moore. Berkeley: University of California Press.

De Pauw, C. (1771) Recherches philosophiques sur les Américains, ou Mémoires intéressants pour servir à l’Histoire de l’Espèce Humaine. Avec une Dissertation sur l’Amérique & les Américains [Philosophical Researches on the Americans, or Interesting Memoirs in the Service of the History of the Human Species: With a Dissertation on America and the Americans]. Berlin.

Douglas, B. (2003) ‘Seaborne Ethnography and the Natural History of Man’, The Journal of Pacific History 38(1): 3–27.

Douglas, B. (2013) ‘Philosophers, Naturalists, and Antipodean Encounters, 1748–1802’, Intellectual History Review 23(3): 387–409.
Eddy, M. D. (2003) ‘The University of Edinburgh Natural History Class Lists 1782–1800’, *Archives of Natural History* 30(1): 97–117.

Eddy, M. D. (2008) *The Language of Mineralogy: John Walker, Chemistry and the Edinburgh Medical School, 1750–1800*. Aldershot: Ashgate.

Ferguson, A. (1967[1767]) *An Essay on the History of Civil Society*. Edinburgh: Edinburgh University Press.

Ferguson, A. (1800[1769]) *Institutes of Moral Philosophy*. Basil: James Decker.

Findlay, E. (1998) *Arcadian Quest: William Westall’s Australian Sketches*. Canberra: National Library of Australia.

Flinders, M. (1966[1814]) *A Voyage to Terra Australis; Undertaken for the Purpose of Completing the Discovery of That Vast Country, and Prosecuted in the Years 1801, 1802, and 1803, in His Majesty’s Ship the Investigator* (Vols 1–2). Adelaide: Libraries Board of South Australia.

Fornasiero, F. J., Monteath, P. and West-Sooby, J. (2004) *Encountering Terra Australis: The Australian Voyages of Nicolas Baudin and Matthew Flinders*. Adelaide: Wakefield Press.

Gascoigne, J. (2003) *Joseph Banks and the English Enlightenment: Useful Knowledge and Polite Culture*. Cambridge: Cambridge University Press.

Gascoigne, J. (2014) *Encountering the Pacific in the Age of Enlightenment*. Cambridge: Cambridge University Press.

Gaukroger, S. (2010) *The Collapse of Mechanism and the Rise of Sensibility: Science and Shaping of Modernity, 1680–1760*. Oxford: Clarendon Press.

Girard, M. (1857) *F. Péron. Naturaliste, voyageur aux terres australes* [F. Péron: Naturalist, Voyager to Terra Australis]. Paris: J. B. Baillière et fils.

Gissis, S. B. (2011) ‘Visualizing “Race” in the Eighteenth Century’, *Historical Studies in the Natural Sciences* 41(1): 41–103.

Golinski, J. (2011) ‘Science in the Enlightenment, Revisited’, *History of Science* 49(2): 217–31.

Good, P. (1981) *The Journal of Peter Good, Gardener on Matthew Flinders’ Voyage to Terra Australis 1801–3*. London: British Museum (Natural History).

Gregory, J. (1770) *Observations on the Duties and Offices of a Physician; and on the Method of Prosecuting Enquiries in Philosophy*. London: W. Strahan and T. Cadell.

Gregory, J. (1772) *Lectures on the Duties and Qualifications of Physician* (Rev. ed.). London: W. Strahan and T. Cadell.

Haakonssen, K. (1996) *Natural Law and Moral Philosophy: From Grotius to the Scottish Enlightenment*. Cambridge: Cambridge University Press.

Haakonssen, L. (1997) *Medicine and Morals in the Enlightenment: John Gregory, Thomas Percival, and Benjamin Rush*. Rodopi: Amsterdam.

Harrison, C. E. (2009) ‘Projections of the Revolutionary Nation: French Expeditions in the Pacific, 1791–1803’, *Osiris* 24(1): 33–52.

Harrison, C. E. (2012) ‘Replotting the Ethnographic Romance: Revolutionairy Frenchmen in the Pacific, 1768–1804’, *Journal of the History of Sexuality* 21(1): 39–59.

Home, H. and Lord Kames (2007[1778]) *Sketches of the History of Man, Considerably Enlarged by the Last Additions and Corrections of the Author: Vol. 3. Progress of Sciences*, ed. J. A. Harris. Indianapolis: Liberty Fund.

Hughes, M. J. (1988) ‘Philosophical Travellers at the Ends of the Earth: Baudin, Péron and the Tasmanians’, in R. W. Home (ed.) *Australian Science in the Making*. Cambridge: Cambridge University Press, pp. 23–44.
Hume, D. (1975[1739–40]) *An Enquiry Concerning Human Understanding*, ed. L. A. Selby-Bigge and P. H. Niddith. Oxford: Oxford University Press.

Hunter, J. (1865[1775]) ‘Disputatio Inauguralis Quaedam De Hominum Varietatibus et harum causis’ [Inaugural Disputation on the Question of the Varieties of Man], trans. T. Bendyshe, in T. Bendyshe (ed.) *The Anthropological Treatises of Blumenbach and Hunter*. London: Longman, Green, Longman, Roberts and Green, pp. 357–94.

Jauffret, L. F. (2004[1774]) ‘Considerations to Serve in the Choice of Objects That May Assist in the Formation of the Special Museum of the Société des observateurs de l’homme, Requested of the Society by Captain Baudin’, in N. Baudin, *The Journal of Post Captain Nicolas Baudin Commander-in-Chief of the Corvettes Géographe and Naturaliste*, trans C. Cornell. Adelaide: Libraries Board of South Australia, pp. 594–6.

Johnson, J. (1792) *A Guide for Gentlemen Studying Medicine at the University of Edinburgh*. London: G. G. J. and J. Robinson.

Kidd, C. (2006) *The Forging of Races: Race and Scripture in the Protestant Atlantic World, 1600–2000*. Cambridge: Cambridge University Press.

Lafont, A. (2013) ‘The Visual Terms of Cultural Encounters: Petit and Cuvier’s Australian Experiment’, in S. A. Prince (ed.) *Of Elephants & Roses: French Natural History 1790–1830*. Philadelphia: American Philosophical Society, pp. 157–67.

Lehleiter, C. (2014) *Romanticism, Origins, and the History of Heredity*. Lanham, MD: Bucknell University Press.

Linnaeus, C. (1759[1741]) ‘An Oration Concerning the Necessity of Travelling in One’s Own Countrey, Made by Dr Linnaeus at Upsal, Oct. 17, Anno 1741, When He Was Admitted to the Royal and Ordinary Profession of Physic’, in B. Stillingfleet, *Miscellaneous Tracts Relating to Natural History, Husbandry and Physick*. London: R. & J. Dodsley, S. Baker and M. Cooper, pp. 1–30.

Linnaeus, C. (2016[1759]) ‘Instruktion för resande naturforskare’ [Instructions for Travelling Natural Historians], trans. A. Ström, in H. Hodacs and K. Nyberg (eds) *Naturalhistoria på resande fot: Om att forska, undervisa och göra karriär i 1700-talets Sverige* [Natural History on the Move: Exploration, Education and Advancement in Eighteenth-Century Sweden]. Lund: Nordic Academic Press, pp. 199–210.

López-Beltrán, C. (1994) ‘Forging Heredity: From Metaphor to Cause, a Reification Story’, *Studies in History and Philosophy of Science Part A* 25(2): 211–35.

López-Beltrán, C. (2002) ‘Natural Things and Non-Natural Things: The Boundaries of the Hereditary in the 18th Century’, in *A Cultural History of Heredity: Vol. 1. 17th and 18th Centuries*. Berlin: Max Planck Institute for the History of Science, Preprint 222, pp. 63–84.

López-Beltrán, C. (2007) ‘The Medical Origins of Heredity’, in S. Müller-Wille and H.-J. Rheinberger (eds) *Heredity Produced: At the Crossroads of Biology, Politics, and Culture, 1500–1870*. Cambridge, MA: MIT Press, pp. 105–32.

Mabberley, D. J. (1985) *Jupiter Botanicus: Robert Brown of the British Museum*. London: British Museum (Natural History).

Meijer, M. C. (1999) *Race and Aesthetics in the Anthropology of Petrus Camper (1722–1789)*. Amsterdam: Rodopi.

Miller, D. P. (1996) ‘Joseph Banks, Empire, and “Centers of Calculation” in Late Hanoverian London’, in D. P. Miller and P. H. Reill (eds) *Visions of Empire: Voyages, Botany, and Representations of Nature*. Cambridge: Cambridge University Press, pp. 21–37.
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Morgan, K. (2014) ‘Sir Joseph Banks as Patron of the Investigator Expedition: Natural History, Geographical Knowledge and Australian Exploration’, International Journal of Maritime History 26(2): 235–64.

Monro, A. (1840) Essays and Heads of Lectures on Anatomy, Physiology, Pathology, and Surgery by the late Alexander Monro Secundus, M.D. . . . With a Memoir of His Life, and Copious Notes Explanatory of Modern Anatomy, Physiology, Pathology, and Practice, by his Son and Successor. Edinburgh: Maclachlan, Steart and Company.

Péron, F. (1983[1802]) ‘Maria Island: Anthropological Observations: Interview With the Natives of This Island and Description of a Tomb Found on the Northern Shore of East Bay’, in N. J. B. Plomley, The Baudin Expedition and the Tasmanian Aborigines, 1802. Hobart: Blubber Head Press, pp. 82–95.

Péron, F. (2016[1824]) The Voyage of Discovery to the Southern Lands: Vol. 1 (2nd ed.), trans. C. Cornell. Adelaide: Friends of the State Library of South Australia.

Plomley, N. J. B. (1983) The Baudin Expedition and the Tasmanian Aborigines, 1802. Hobart: Blubber Head Press.

Popkin, R. (1973) ‘The Philosophical Basis of Eighteenth-Century Racism’, in H. E. Pagliaro (ed.) Racism in the Eighteenth Century. Cleveland: Press of Case Western Reserve University, pp. 245–62.

Rosner, L. (1992) ‘Thistle on the Delaware: Edinburgh Medical Education and Philadelphia Practice, 1800–1825’, Social History of Medicine 5(1): 19–42.

Sebastiani, S. (2013) The Scottish Enlightenment: Race, Gender and the Limits of Progress. Basingstoke: Palgrave.

Sloan, P. (1973) ‘The Idea of Racial Degeneracy in Buffon’s Histoire Naturelle’, in H. E. Pagliaro (ed.) Racism in the Eighteenth Century. Cleveland: Press of Case Western Reserve University, pp. 293–321.

Smith, S. (2003) Sailing with Flinders: The Journal of Seaman Samuel Smith, ed. P. Monteath. Adelaide: Corkwood Press.

Starbuck, N. (2013) “‘Primitive Race”, “Pure Race”, “Brown Race”, “Every Race”: Louis Freycinet’s Understanding of Human Difference in Oceania’, in J. West-Sooby (ed.) Discovery and Empire: The French in the South Seas. Adelaide: University of Adelaide Press, pp. 215–44.

Staum, M. S. (2003) Labeling People: French Scholars on Society, Race, and Empire 1815–1848. Montreal and Kingston: McGill-Queen’s University Press.

Thomson, J. (1832) An Account of the Life, Lectures and Writings of William Cullen, M.D.: Vol. 2. Edinburgh: William Blackburn.

Turnbull, P. (2007) ‘British Anatomists, Phrenologists and the Construction of the Aboriginal Race, c.1790–1830’, History Compass 5(1): 26–50.

Turnbull, P. (2017) Science, Museums and Collecting the Indigenous Dead in Colonial Australia. Cham: Palgrave.

Walker, J. (1808) Economical History of the Hebrides and Highlands of Scotland (Vols 1–2). Edinburgh: Edinburgh University Press.

Wood, P. B. (1996) ‘The Science of Man’, in N. Jardine, J. A. Secord and E. C. Spary (eds) Cultures of Natural History. Cambridge: Cambridge University Press, pp. 197–210.
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