

Anderson, Lyall I and Taylor, Michael A (2015) Tennyson and the geologists part 1: the early years and Charles Peach.

The Tennyson Research Bulletin Vol. 10 NO. 4, 2015 pp. 340-356 0082-2841

<http://repository.nms.ac.uk/1533>

Deposited on: 21 December 2015

TENNYSON AND THE GEOLOGISTS

PART 1. THE EARLY YEARS AND CHARLES PEACH

Lyall I. Anderson and Michael A. Taylor

When visiting Cornwall in 1848, Alfred Tennyson made friends with one Mr Peach, seeing his fossils, and inspecting marine life through Peach's microscope. This is well known to be Charles W. Peach (1800-1886), later made a scientific hero of working-class self-help in Samuel Smiles' biography (which Tennyson owned: Smiles, 1878; Campbell, 1971-1973, I, 94, item 2054; Lang and Shannon, 1981-1990, II, 290; Dean, 1985, 32). Peach had a fine reputation in geology and marine biology, his collecting work determined by his moves across country between his various stations with the Coastguard and Customs services, and eventually by his retirement in Edinburgh. His specimens are in various museums today, including National Museums Scotland, Edinburgh, where our curatorial work led us to write an assessment of this remarkable man (Anderson and Taylor, 2008). In this paper, we explore the connection between Peach and Tennyson, and their mutual links to the eminent geologist Professor Adam Sedgwick (1785-1873). Being palaeontologists as well as historians of geology, we naturally started by considering whether Peach and Tennyson got to know each other through a common interest in geology, prompted by the recent article by Robinson (2008) which alerted us to this personal link and other aspects of Tennyson's interest. However, examination of the literature, such as the important and useful review by Dean (1985), raised the wider issue of Tennyson's relationship with geology, and how it changed with time, which can be hard to judge, given the way in which reminiscences and biographies are necessarily telescoped in retrospective hindsight (Millhauser, 1981; cf. Knell and Taylor, 2006). We suggest that Tennyson's early involvement in geology was much weaker, and slower to develop, than is sometimes argued, but that he was undoubtedly interested in the science by the time of his Cornish tour of 1848. We also offer interpretations for puzzling allusions in the literature. In a second paper, to be published in the 2016 issue of the *Tennyson Research Bulletin*, we explore the further development of Tennyson's interest in geology, and especially his involvement with the 'dragons of the prime' (Taylor and Anderson, 2016a, forthcoming).

Repository abbreviation. TRC: Tennyson Research Centre, Lincoln Central Library, Free School Lane, Lincoln LN2 1EZ.

Tennyson and his books

It can be difficult to trace the source of Tennyson's geological inspirations. A geologist's ideas could reach the public through various routes: that author's own, perhaps expensive, volume or scholarly journal paper; their reviews in the quarterlies; perhaps the same author's cheap book for a more general audience; or a hack's account in a high-circulation but ephemeral magazine – all with their different timings and limitations. There was, of course, frequent (and sometimes error-ridden) copying between and within those modes, making it harder to identify the original source today (for such a plagiaristic piece erroneously attributed to Charles Dickens, see Taylor and Torrens, 2014). Tennyson's varying disposable income must also have affected his book purchases, unless he could borrow from a library or a friend (see discussion of prices by O'Connor, 2007a). And a book's message depended as much on the reader as on the author, the reader often interpreting it 'wrongly', at least by the author's lights (cf. Secord, 2000).

Besides dated mentions in notes, letters, and so on, one approach to finding out what Tennyson read is to consider the contents of his library as (partly) reconstructed by Campbell (1971-1973; more recent acquisitions in TRC on online catalogue, www.lincstothepast.com, accessed 12 January 2015). If this listing were to be taken at face value, one would conclude that by the end of his lifetime Tennyson's library comprised a stratum of rather few general works and basic references in geology and natural history, onto which was accreted a rather random superficial layer of various books, often signed presentation copies by eminent names: for instance, a treatise on glaciation by Louis Agassiz (1807-1873) (Campbell 1971-1973, I, 25, item 389). Admittedly Tennyson might not have bothered to buy technical works on the nuts and bolts of the science, such as the expensive fossil identification books by James Parkinson (1755-1824) (O'Connor, 2007a). But his known interests suggest that he should have owned more geological books for general readers, complementing analogous books in his library, for instance, *History of the Inductive Sciences* by William Whewell (1794-1866) (Campbell, 1971-1973, I, 105, item 2322). Tennyson certainly owned *Vestiges of the Natural History of Creation*, anonymously published (1843) by Robert Chambers (1802-1871), with its pre-Darwinian speculation on the evolution of the universe, life and humanity, yet it is not in Campbell's list (Secord, 2000, 9-10, 530-532). Also missing are the books of Gideon Mantell (1790-1852), and other key general geological works for the interested reader, such as the 'Bridgewater Treatise' on *Geology and Mineralogy* (1836) by William Buckland (1784-1856). Another gap comprises field guides for the areas around Tennyson's residences, such as the Isle of Wight. A surprising omission is Hugh Miller (1802-1856), widely

admired for his literary merit and the poetics of his prose (O'Connor, 2007a; Taylor and Anderson, 2016b forthcoming). Yet some at least of those various works are likely sources for Tennyson's work from the 1840s onwards (Taylor and Anderson, 2016a forthcoming). Those geological lacunae are entirely possible, as the published listings of Tennyson's library are explicitly retrospective and incomplete, and losses are known to have happened (Campbell, 1971-1973). Plainly the absence of any particular book is not reliable evidence, but the *presence* of a surviving book can be useful.

Tennyson's Cambridge years

From 1827 to 1831, Tennyson was an undergraduate at Trinity College, University of Cambridge. Tennyson's college tutor was William Whewell (1794-1866), a Fellow of the College and a philosopher active in many fields, especially mineralogy. The noted geologist Adam Sedgwick was also a Fellow, and a conscientious Woodwardian Professor of Geology (Speakman, 1985; Becher, 1987).¹ It is natural to imagine that Tennyson would be bound to have taken advantage of those geological opportunities. However, he would have had to make a positive decision to do so. The standard undergraduate teaching was dominated by mathematics, leavened with liberal arts such as classics, and some divinity. Geology was strictly optional, and in any case irrelevant to the University degree examinations (Fyfe, 1997). There is another possible reason why Tennyson might not have taken up geology at Cambridge. Natural theology, the use of evidence from the natural world to prove the existence of a divine Designer, was seemingly apt to be rejected by Tennyson's coterie, and Tennyson himself, then and later (e.g. Dean, 1981, 122, 1985, 4, 29; Armstrong 1993, 63-64; Tomko, 2004). But Sedgwick's University teaching in geology, and Whewell's in mineralogy, were partly based on natural theology (Gliserman, 1975; Fyfe, 1997). This should not be confused with so-called scriptural geologists' attempts to reconcile science with literalistic interpretations of the Bible, such as a young Earth or the Biblical Deluge (O'Connor, 2007b). Sedgwick and Whewell's use of natural theology did, however, reflect their role as ordained clerics in a university which was simultaneously Anglican seminary and gentleman's finishing school.

There is remarkably little evidence in the literature on Tennyson's undergraduate career that he attended Sedgwick's geological lecture courses and field trips. Sedgwick is barely mentioned, and not at all in a geological context. Sedgwick was, in any case, a College tutor quite apart from his

¹Sometimes confused in Tennyson literature with his great-nephew Adam Sedgwick (1854-1913), a contemporary of Tennyson's eldest son Hallam at Marlborough College and then Trinity College, where he also remained, but as a University Professor of Zoology, for most of his career.

geological activities, as was Whewell, and their presence at Trinity did not mean that Tennyson necessarily attended their geological and mineralogical courses. Tennyson did latterly have a social relationship with Sedgwick, for instance in 1868 (Anon. undated, I, 80, III, 78); but this might have grown later, as between a Fellow of Trinity and a former student who had become a major intellectual figure in his own right. Interestingly, in later life Tennyson deplored the gap between dons and undergraduates during his time at Trinity (H. Tennyson, 1897, 67-68; Tietze, 1957, 229). Tennyson did own a copy of *Catalogue of the collection of Cambrian and Silurian fossils* in the Woodwardian Museum, inscribed to him 'In mem[oriam]. A[dam]. S[edgwick]'. "Loved the man and prized his work." by Thomas McKenny Hughes (1832-1917), successor to Sedgwick's chair (Campbell, 1971-1973, I, 90, item 1932). But, as the quotation from 'Morte d'Arthur' implies, this was almost certainly because of its personal significance, the preface being Sedgwick's last work, a retrospective memoir (Salter, 1873; Speakman, 1982).

The evidence for Tennyson's undergraduate attendance at Sedgwick's geological lectures is inconclusive. A minor poet, Richard Wilton, suggested that Tennyson had attended them and 'studied and imitated Sedgwick's grand, nervous style' (Speakman, 1982, 87-88). But this seems speculative. Wilton cannot have spoken from direct knowledge, for he did not attend Cambridge until the 1840s. There seem to be no surviving class registers; any would long ago have been turned up by the voracious industry surrounding Tennyson's Cambridge contemporary Charles Darwin (1809-1882), and they were probably unnecessary, for Sedgwick's excellent lectures were free and public, obviating the need to account for class fees (Speakman, 1982). It is not even clear whether Darwin himself attended the lectures, despite the importance of Sedgwick's field training for Darwin's work on the voyage of *H.M.S. Beagle* (Herbert, 2005, 36-37); his own mentor at Cambridge was the botanist J.S. Henslow (1796-1861). Darwin and Tennyson apparently never met as undergraduates, perhaps simply because they were at different colleges, and first met only in 1868 (Browne, 2002, 299-300; Batchelor, 2012, 291; Purton, 2013b).

There is no clear evidence that Tennyson attended field trips, the other element of Sedgwick's geological teaching (an ambiguous passage in Clark and Hughes, 1890, I, 440, can be read as stating that Sedgwick began his field lectures in 1835, after Tennyson left Cambridge, but other evidence, e.g. Anon., 1824, refutes this reading). In later life, Tennyson told a story of a lady being helped by Sedgwick on fieldwork, who took him for a stone-breaker and gave him a shilling, only to meet him later at dinner in the local great house (Lang and Shannon, 1981-1990, III, 63). But this is not good evidence

that Tennyson himself was taking part in the fieldwork. Such an event was most unlikely if Sedgwick had been accompanied by a group of undergraduates. In fact, the story is a variant of a favourite anecdote of Sedgwick's about an incident in Westmorland unrelated to his field classes (Clark and Hughes 1890, II, 573-574; Keeping, undated, 17). The humour lay, of course, in the incongruity of Sedgwick's gentlemanly status, manual labour and rough field dress – a common element of such geologists' tales (Porter, 1978; Allen, 1994, 138).

Tietze (1957, 223) interestingly adduced the geological outing in *The Princess* as evidence for Tennyson's presence on one of Sedgwick's field excursions. But this poem was written more than a decade after Tennyson left Cambridge (Batchelor, 2012). It also seems too unspecific to bear such weight. Apart from shale, and rag which does occur at Upware, the rocks are inappropriate for a field trip within day range of Cambridge: 'Of shale and hornblende, rag and trap and tuff,/ Amygdaloid and trachyte [...]' (III, 343-345; Ricks, 2014, 264). Of course Sedgwick would have mentioned those rocks, almost all found in his north Wales field area, in his lectures - but most are also in Lyell's *Principles of Geology* (1830-1833, III, glossary), and *Elements of Geology* (1st edition, 1838, which Tennyson owned, Campbell, 1971-1973, I, 70, item 1458). Admittedly, the Princess and her companions were unable to find any such rocks (Dean, 1985, 16). But this hardly sounds like a field party guided by Sedgwick. Rather, Tennyson was surely exploiting the assonances of those technical terms, much as Hugh MacDiarmid (1892-1978) would later do in 'On a raised beach'. And when large fossil bones are found, it is in a rather un-Cambridgeshire-like rocky cataract (III, 273-280; Ricks, 2014, 262; Taylor and Anderson, 2016a forthcoming). But Tietze importantly notes that there is no evidence that Tennyson had any special relationship with Sedgwick, and certainly nothing comparable to Darwin's.

Even seeing fossils in Cambridge was not easy in the 1830s. Those wishing to view the University collection had to make a direct approach to the Professor, Sedgwick himself. The Woodwardian Museum, and materials added to it by Sedgwick from 1818 onwards, were only arranged and put on display in the Cockerell Building from 1840.

An important potential counterexample to our argument is Armstrong's (1993, 56-58) suggestion that Tennyson was influenced by geological ideas such as those of Charles Lyell (1797-1875) in *Principles of Geology* as early as 1830, when Tennyson published 'Nothing Will Die' in *Poems, Chiefly Lyrical* (A. Tennyson, 1830; Ricks, 1987, 247):

When will the stream be weary of flowing
Under my eye?
When will the wind be weary of blowing
Over the sky?
When will the clouds be weary of fleeting?
When will the heart be weary of beating?
And nature die?
Never, oh! never, nothing will die;
The stream flows,
The wind blows,
The cloud fleets,
The heart beats,
Nothing will die.

Nothing will die;
All things will change
Through eternity.
'Tis the world's winter;
Autumn and summer
Are gone long ago;
Earth is dry to the centre,
But spring, a new comer,
A spring rich and strange,
Shall make the winds blow
Round and round,
Through and through,
Here and there,
Till the air
And the ground
Shall be filled with life anew.

The world was never made;
It will change, but it will not fade.
So let the wind range;
For even and morn
Ever will be
Through eternity.
Nothing was born;
Nothing will die;
All things will change.

Armstrong (1993, 57-58) interprets this as a 'versification of new geological theory', referring to the ideas published in Lyell's *Principles*, and especially of cyclic climatic change over geological time. However, there are problems with this interpretation. The first is that, despite what is sometimes said, Lyell's

analysis prescribes no particular pattern, linear, cyclical or otherwise, to future climate change, which depends on the vagaries of the changing distribution of land and sea (Lyell, 1830, I, esp. 104-124; Secord, 1997, xvi-xix, 2014, 147-151; see also A. Buckland, 2013, 95-130). However, as Secord also notes, a cyclical interpretation of Lyell's ideas has proved a common misinterpretation, no doubt encouraged by Lyell's metaphorical reference in a literary flourish to 'what may be termed the winter of the "great year", or geological cycle', hinting misleadingly at a regular succession on a fixed timing, analogous to the seasons of the year (Lyell, 1830-1833, I, 9, 116).

The second, and more recalcitrant, problem is chronological. The obvious suggestion (which Armstrong does *not* make) is that 'Nothing Will Die' was influenced by the first and, here, relevant volume of *Principles*, either directly or through reviews. But this seems impossible, simply because *Poems, Chiefly Lyrical* was published more or less simultaneously with *Principles*, or a little before it, in or about June 1830 (A. Tennyson, 1830; Lyell, 1881, I, 268; Campbell, 1971-1973, II, 20, item 4178; Lyell finished his proofs in mid-June, Wilson, 1972, 273; Lang and Shannon, 1981-1990, I, 44-45). Armstrong suggests that Tennyson 'knew of those speculations before Lyell's book appeared', but this seems unlikely. Lyell evidently kept his cards close to his chest in advance of publication to maximise the impact of his provocative synthesis, which insisted on using only factors observable today to explain the past. He even refused to let his friend Mantell know his thinking on climate a few months before publication (Lyell, 1881, I, 261-262; Wennerbom, 1999, letters 68, 69, 73). And there is no evidence that Tennyson was linked, however tenuously, into the geological network – never mind as centrally as Mantell and Lyell. In any case, the earliest positive evidence for Tennyson's reading of *Principles* is distinctly later, from 1836-1837 (H. Tennyson, 1897, I, 162; Campbell, 1971-1973, I, 70, item 1460; Lang and Shannon, 1981-1990, I, 145; Ricks, 2014, 397-398). And, as Dean (1985, 8), noted, Tennyson's copy was second-hand.

The third problem is that, even acknowledging the ambiguities inherent in poetry, 'Nothing Will Die' does not seem to us to be obviously written with geology in mind, particularly when read with its companion poem 'All Things Will Die'. If we were nevertheless forced to a geological interpretation, we would regard it as a general reference to the overall climatic change seen in the geological record, possibly mixed with the eternal cycle of James Hutton's (1726-1797) geology as seen through later writers. But this seems too strained. For one thing, Hutton's cycles in fact create a dynamic steady state, old land being eroded into the sea while new land forms elsewhere from the resulting sediment, and, as cycles, are strictly local rather than global.

Armstrong's highlighting of 'Nothing Will Die' is nevertheless highly apposite, for that poem and its companion show Tennyson's early interest in the passing of the present order, and the transience of the apparently permanent, seemingly in cyclic patterns. No wonder, therefore, that geological authors appealed strongly to Tennyson when he did get round to reading them.

In conclusion, the evidence that Tennyson actively studied geology as an undergraduate, in the sense of following Sedgwick's lectures and field outings, seems so weak that it would be more circumspect to conclude that he did not. Yet Tennyson plainly did not ignore geology. He touched on such things as earthquakes in some of his earliest poetry. He was seemingly assimilating articles on geological topics in the *Quarterly Review* from 1826 onwards (Dean, 1985, 2-4), whence perhaps the topical reference to a 'pterodactyle' in a letter of 1832 (Rupke, 1983, 226-227). He no doubt discussed geology, amongst much else, with Arthur Hallam and their friends (cf. Hallam's 1831 essay on Cicero, Armstrong, 1993, 63-64). Nevertheless, Tennyson's famous home-study timetable of c. 1832, soon after he left Cambridge, notably omits geology (H. Tennyson, 1897, I, 124; Millhauser, 1971, 3-4). Admittedly it is an open question whether this indicates a lack of interest, or simply of useful books, or even a feeling that he knew enough.

The simplest, and the common-sense, conclusion is that Tennyson read several writers on geology, either directly, or in quarterlies, reviews, and popular magazines, and was influenced by any or all of them, as well as by actual fossils, as he chose. His known 1836-1837 reading of Lyell is consistent with Dean's suggestion (1985, 8) that Tennyson finally engaged properly with geology and palaeontology during the later 1830s, moving beyond review articles, and this is corroborated by the 1836-1844 dates of other likely key works reviewed by Taylor and Anderson (2016a forthcoming).

Meeting Mr Peach in Cornwall, 1848

Tennyson's known interest in geology from the late 1830s, therefore, suggests that he would have been interested in Charles Peach's scientific activities. Indeed, Tennyson might have known of him before visiting Cornwall, for Peach had presented papers to the well-reported meetings of the British Association for the Advancement of Science, the main British showcase for science, in the early 1840s. We wondered initially if Peach was seeking patronage from Tennyson to help support his family and his research, both financially and in terms of securing employment, for Peach was good at exploiting his natural history skills to keep his betters happy (Anderson and

Taylor, 2008; Anderson and Lowe, 2010). But Tennyson was not yet Poet Laureate and was himself dependent on patronage. It remains, of course, possible that Peach was consciously seeking to network with a notable visitor. Nevertheless, we need not impute any ulterior motives. Peach was amiable and chatty, and, away from the literary world, Tennyson enjoyed talking to country folk, both in his native Lincolnshire and in Cornwall, especially during the delays enforced by his recovery from an accident to his leg. Moreover, a common interest would become obvious as soon as Tennyson, at least, opened his mouth: Tennyson spoke with a strong Lincolnshire accent and wrote poems in dialect (Collins, 1972; Batchelor, 2012), while Peach came from Wansford, not far from Lincolnshire, and had been schooled in the county (Smiles, 1878, 240).

Tennyson was in Cornwall to research local scenery and legends for his Arthurian poetry. He seemingly met Peach after a move to Fowey on 8 June, following some weeks' convalescence at Bude after a bad fall over a sea wall in the dark. His knee was still troubling him at Fowey, and he was laid up in bed for a few days (Lang and Shannon, 1981-1990, I, 288-290). Tennyson plainly did not stay with the Peaches, as Mr Peach 'called' on him, but his lodgings were near enough to Peach's home from at least 13 to 17 June for Peach to call in several times and for Tennyson to come and see Peach's 'fossils out of the clay slate' and 'the great myrtle which grows by his house'. The Polperro doctor Jonathan Couch (1789-1870), another fine naturalist, went to visit Tennyson on 19 June, presumably professionally, and on the next day Tennyson and Peach came round by boat to Polperro and had tea with Couch (Wheeler, 1983, 115; Johns, 2010; Lang and Shannon, 1981-1990, I, 290). Tennyson then seemingly had a relapse for a few days, but eventually Peach drove Tennyson to St Austell on 29 June, to continue his tour.

Tennyson's 'fossils out of the clay slate' reflect Peach's collecting exploits in Cornwall, centred initially on Gorran Haven, Peach's station from 1834 to 1845, near St. Austell. As he would do elsewhere later, Peach here found crucial fossils which bore on then current research questions because they determined the relative age of their source rocks. Peach's fossils were notably relevant to Sedgwick's work on the rocks of Cornwall and Devon in the 1840s and 1850s (Sedgwick, 1852; Crowther, 2003). This raises the interesting possibility that Sedgwick had told Tennyson to visit Peach when in Cornwall – unfortunately unlikely for the reasons discussed earlier, but doubtless this common link gave Tennyson and Peach another theme of conversation.

Peach also showed Tennyson, seemingly through the microscope, a spider and small marine organisms, of which last Peach was a noted collector and



Fig. 1. Charles Peach's compound microscope (Nuttall, 2004; provenance notes, NMS specimen records, Dr Alison Morrison-Low, pers. comm). National Museums Scotland T.1999.40. © National Museums Scotland.

observer (Nuttall, 2004). The 'strange sights' included live 'zoophytes' (small sessile and often colonial marine animals, some resembling tiny sea-anemones) and 'coral[l]ines' (limy encrusting organisms) (Lang and Shannon, 1981-1990, I, 290). It is not quite clear through which instrument (or instruments) Tennyson looked. At that time, 'microscope' was an ambiguous word. It could refer to a 'botanist's microscope', essentially a hand lens, or several on the same pivot, on a simple stand screwed into a supporting base that doubled as a carrying case (Morrison-Low and Nuttall, 2003). But it could also, and here perhaps more probably did, have the modern meaning of a compound microscope. Peach's compound microscope is now preserved in National Museums Scotland; it is pleasant to think of Tennyson peering through it (Fig. 1; Nuttall, 2004).

The month after his visit to Peach, Tennyson spoke at a party near Plymouth about geology and about Peach bringing up a large family on a minute income (Anon., undated, I, 356-361; H. Tennyson, 1897, I, 277; Henderson, 1978, 72-74). He spoke about ‘lower organisms feeling less pain than higher’ and how he ‘could not comprehend the feeling of animals with ganglia, little scattered knots of nerves and no brain’ – just the kind of small marine organisms that Peach showed him. No doubt those reflections were prompted by his visit to Peach, as suggested by his then telling a story about a Brahmin and a microscope. They also foreshadow Tennyson’s mid-1850s passage in *Maud* on the ‘lovely shell, / Small and pure as a pearl’, and the ‘little living will’ of its former inhabitant (cf. Armstrong 1993, 280-281). But they also reflect Tennyson’s known interest, as early as at Cambridge, in the nature of consciousness and the soul, and the brain in animals of different grades of complexity (Maxwell, 2009; Stott, 2013). Interestingly, Tennyson later had a species of bryozoan (a kind of zoophyte) named after him at the request of its collector Margaret Gatty (1809-1873), marine biologist, natural history writer, and novelist, no doubt because it was ‘extremely beautiful’ rather than because it was parasitic (Busk, 1867).

After Cornwall

Peach and Tennyson evidently got on well. Tennyson seemingly appreciated Peach’s company, for in a letter of 1850 to a mutual acquaintance he said that a ‘more honest truer hearted man does not breathe than he. I shall never forget his kindness and hospitality to me when I was ill at Fowey’ (Lang and Shannon, 1981-1990, I, 325; also II, 7). And, years later in November 1870, we find that ‘dear old Cornish geologist’ Peach visiting Tennyson and his wife at Aldworth (Anon., undated, III, 159; H. Tennyson, 1897, II, 100).

The published letters of Tennyson (Lang & Shannon, 1981-1990, II, 30) include an unexplained note, ascribed to 1852, to a ‘Mr Barnard’ saying just ‘My wife is much obliged. Let it be Peach’. The addressee was probably Neville Northey *Burnard* (1818-1878), Cornishman and sculptor (Burnard and Peach, 2010). So perhaps the Tennysons were ordering, or being offered, a copy of Burnard’s ‘Bust of Charles William Peach, Esq., FR, PSE’ of 1851 (Anon., 2011; Roscoe *et al.*, undated; ‘FR, PSE’ is plainly an error for FRPSE, i.e. Fellow of the Royal Physical Society of Edinburgh, though Peach was only a Member in 1850 and not elected to fellowship till 1867: Anderson and Taylor, 2008). Burnard occurs elsewhere in the Tennyson letters, with an intriguing mention of an unfortunately unidentified bust which he gave to the Tennysons (Lang and Shannon, 1981-1990, II, 214-215, III, 459).

Conclusion

Although we have evidence of Charles Peach exchanging, selling and donating fossils amongst his contemporaries, as well as to institutions, we have sadly been unable, so far, to determine whether he traded anything with Tennyson – other than, of course, stories and enthusiasm for the natural world past and present. But when Peach died in 1886, Tennyson sent his son Ben a sympathetic letter of commiseration (Lang and Shannon, 1981-1990, III, 334): ‘[y]our loss is great in the death of so good and so distinguished a father. Accept the assurance of my warm sympathy. I remember your father with sincere regard. He was very hospitable and kind to me when I came across him on the occasion of a tour in Cornwall. I shall be most happy to sign the Memorial of your sister.’ This last was to the Government, ‘subscribed by about 140 eminent persons’, to seek a Civil List pension for Peach’s (apparently) disabled daughter Jemima, no doubt in view of Peach’s services to science. She was only given a one-off grant which was thought so inadequate that a further appeal was made (Anon., 1886).

On Tennyson’s own death, Ben Peach’s brother William sent the widowed Emily a letter of condolence (7 October 1892, TRC/LETTERS/4097), recalling how Tennyson ‘used to talk to me about the cultivation of Flowers when admiring our beautiful myrtle, and passion flower at our pretty house at Fowey’. William also referred to ‘extracts of great interest to you’ in Charles Peach’s diary, which might be useful when Tennyson’s life was written. Sadly, this diary is yet unlocated, if it survives at all.

Ben grew up to become Benjamin Neeve Peach (1842-1926), famous worldwide amongst geologists for his seminal work in the Northwest Highlands of Scotland. But when Tennyson visited in Cornwall, Ben was still a small boy, and his obituarist recalled Ben’s memories of being taken out for walks by Tennyson, who had taken a shine to the lad (Greenly, 1928, 2). Greenly, perhaps rather optimistically, suggested that ‘the poet’s vision of the world flowed out’ into Ben’s five-year-old mind and helped him to later greatness. What certainly impressed Ben, as Greenly admitted, were the poet’s untrimmed and dirty fingernails. Sadly, we cannot even excuse Tennyson on the grounds that he had perhaps been out collecting with Ben’s father, for the poet was unkempt and slovenly by all accounts, including one from Cornwall (Wheeler, 1983, 115; Johns, 2010, 104; Batchelor, 2012, 158, 232). But Ben also remembered how Tennyson used to gaze on the splendid passion-flower at the Peaches’ garden entrance, and in later life he was always convinced that Tennyson had enshrined it in *Maud*: ‘There has fallen a splendid tear/From the passion-flower at the gate.’

Acknowledgements

We are grateful to Grace Timmins, Tennyson Research Centre, Lincolnshire County Library, Lincoln, for information and a copy of the 1892 letter. We thank Susan Chambers, Jeremy Rowett Johns, Alison Morrison-Low, Ralph O'Connor, and Julie Orford for information and discussion, and an anonymous referee for a helpful review. We thank the staff of the photographic library of National Museums Scotland and of the libraries of National Museums Scotland and the Universities of Cambridge and Leicester.

Works Cited

- Allen, David Elliston, 1994. *The naturalist in Britain: a social history*. 2nd ed. Princeton: Princeton University Press.
- Anderson, Lyall I., and Lowe, Mathew, 2010. 'Charles W. Peach and Darwin's barnacles.' *Journal of the History of Collections*, 22: 2: 1-14.
- _____, and Taylor, Michael A., 2008. 'Charles W. Peach, palaeobotany and Scotland.' *The Geological Curator*, 8: 9: 393-425.
- Anonymous, 1824. 'The Cambridge lecturers, as I remember them some time ago.' *Knight's Quarterly Magazine*, 3: 1 (August): 112-116.
- _____, 1886. [Civil List grant for Jemima Peach.] *Nature*, 35: 83 only.
- _____, 2011. 'Neville Northey Burnard', *Mapping the Practice and Profession of Sculpture in Britain and Ireland 1851-1951*, University of Glasgow History of Art and HATII, online database 2011
[http://sculpture.gla.ac.uk/view/object.php?id=msib7_1219669083, accessed 10 September 2013].
- _____, undated [Tennyson, H., ca. 1895]. *Materials for a life of A.T. collected for my children*. 4 vols. Privately published.
- Armstrong, Isobel, 1993. *Victorian Poetry. Poetry, poetics and politics*. London: Routledge.
- Batchelor, John, 2012. *Tennyson. To strive, to seek, to find*. London: Chatto & Windus.
- Becher, Harvey W., 1987. 'Voluntary science in nineteenth century Cambridge University to the 1850's.' *British Journal for the History of Science*, 19: 57-87.
- Browne, Janet, 2002. *Charles Darwin. The power of place*. London: Cape.
- Buckland, Adelene, 2013. *Novel science. Fiction and the invention of nineteenth-century geology*. Chicago: University of Chicago Press.

Buckland, William, 1836. *Geology and mineralogy considered with reference to natural theology*. 2 vols. London: Pickering.

Burnard, Annette, and Peach, Annette, 2010. 'Burnard, Neville Northey (1818–1878).' *Oxford Dictionary of National Biography*, online ed. [<http://www.oxforddnb.com/view/article/4048>, accessed 10 September 2013].

Busk, George, 1867. 'Zoophytology.' *Quarterly Journal of Microscopic Science*, new series: 7: 241-243.

Campbell, Nancie, 1971-1973. *Tennyson in Lincoln. A catalogue of the collections in the Research Centre*. 2 vols. Lincoln: Tennyson Society.

Clark, John W., and Hughes, Thomas McKenny, 1890. *The life and letters of the Reverend Adam Sedgwick LL.D., D.C.L., F.R.S., Fellow of Trinity College, Cambridge, Prebendary Of Norwich, Woodwardian Professor Of Geology, 1818-1873*. 2 vols. Cambridge: Cambridge University Press.

Collins, Philip, 1972. *Reading aloud. A Victorian métier*. Lincoln: Tennyson Society.

Crowther, Peter R., 2003. 'The Charles W. Peach (1800-1886) collection of Cornish fossils.' *The Geological Curator*, 7: 9: 323-8.

Dean, Dennis R., 1981. "'Through science to despair": geology and the Victorians.' *Annals of the New York Academy of Sciences*, 360: 111-136.

_____, 1985. *Tennyson and geology*. Lincoln: Tennyson Society.

Fyfe, Aileen, 1997. 'The reception of William Paley's "Natural Theology" in the University of Cambridge.' *British Journal for the History of Science*, 30: 3: 321-335.

Gliserman, Susan, 1975. 'Early Victorian science writers and Tennyson's "In Memoriam": a study in cultural exchange: Part I.' *Victorian Studies*, 18: 3: 277-308; '...Part II.' 18: 4: 437-459.

Greenly, Edward, 1928. 'Benjamin Neeve Peach: a study.' *Transactions of the Edinburgh Geological Society*, 12: 1: 1-11.

Henderson, Philip, 1978. *Tennyson, Poet and Prophet*. London: Routledge & Kegan Paul.

Herbert, Sandra, 2005. *Charles Darwin, geologist*. Ithaca: Cornell University Press.

Johns, Jeremy R., 2010. *Doctor by nature. Jonathan Couch: surgeon of Polperro*. Clifton-upon-Teme: Polperro Heritage Press.

Keeping, Henry, undated. *Reminiscences of my life*. Revised ed. Cambridge: privately published.

- Knell, Simon J., and Taylor, Michael A., 2006. 'Hugh Miller: fossils, landscape and literary geology.' *Proceedings of the Geologists' Association*, 117: 85-98.
- Lang, Cecil Y., and Shannon, Edgar F. Jr., 1981-1990. *The Letters of Alfred Lord Tennyson*. 3 vols. Oxford: Clarendon Press.
- Lyell, Charles, 1830-1833. *Principles of geology*. 3 vols. London: Murray.
- Lyell, Katherine M., 1881. *Life, letters and journals of Sir Charles Lyell, Bart. author of 'Principles of Geology' &c. edited by his sister-in-law, Mrs. Lyell*. 2 vols. London: Murray.
- Mantell, Gideon A., 1844. *The medals of creation*. 2 vols. London: Bohn.
- Maxwell, Richard, 2009. 'Unnumbered polypi.' *Victorian Poetry*, 47: 1: 7-23.
- Millhauser, M., 1971. *Fire and ice. The influence of science on Tennyson's poetry*. Lincoln: Tennyson Society.
- Morrison-Low, Alison D., and Nuttall, Robert H., 2003. 'Hugh Miller in an age of microscopy.' Pp. 214-226 in Borley, Lester (ed.), 2003. *Celebrating the life and times of Hugh Miller*. Cromarty: Cromarty Arts Trust.
- Nuttall, Robert H., 2004. "'An outdoor man": Charles Peach and the luminosity of the sea.' *Quekett Journal of Microscopy*, 39: 783-91.
- O'Connor, Ralph, 2007a. *The Earth on show. Fossils and the poetics of popular science, 1802-1856*. Chicago: University of Chicago Press.
- _____, 2007b. 'Young-earth creationists in early nineteenth-century Britain? Towards a reassessment of "Scriptural Geology".' *History of Science*, 45: 357-403.
- Porter, Roy, 1978. 'Gentlemen and geology: the emergence of a scientific career, 1660-1920.' *Historical Journal*, 21: 4: 809-36.
- Purton, Valerie (ed.), 2013a. *Darwin, Tennyson and their readers. Explorations in Victorian literature and science*. London: Anthem Press.
- _____, 2013b. 'Darwin, Tennyson and the writing of "The Holy Grail".' Pp. 49-64 in Purton (2013a).
- Ricks, Christopher, (ed.) 1987. *The poems of Tennyson in three volumes*. 3 vols. 2nd ed. Harlow: Longman.
- _____, 2014. Tennyson. *A selected edition*. Revised ed. London: Routledge.
- Robinson, Eric, 2008. 'Alfred Lord Tennyson: geology on Parnassus?' *Geology Today*, 24: 1: 4-6.
- Roscoe, Ingrid, Hardy, Emma, and Sullivan, M. G., undated. *A biographical dictionary of sculptors in Britain 1660-1851*

[<http://217.204.55.158/henrymoore/index.php>, accessed 10 September 2013].

Rupke, Nicolaas, 1983. *The great chain of history. William Buckland and the English School of geology (1814-1849)*. Oxford: Clarendon Press.

Salter, John W., 1873. *A catalogue of the collection of Cambrian and Silurian fossils contained in the Geological Museum of the University of Cambridge; with a preface by the Rev. Adam Sedgwick [...]*. Cambridge: Cambridge University Press.

Secord, James A. 1997. 'Introduction.' Pp. ix-xliii in Lyell, Charles. *Principles of Geology*. Abridged ed. Harmondsworth: Penguin.

_____, 2000. *Victorian sensation. The extraordinary publication, reception, and secret ownership of Vestiges of the natural history of creation*. Chicago: University of Chicago Press.

_____, 2014. *Visions of science. Books and readers at the dawn of the Victorian Age*. Oxford: Oxford University Press.

Sedgwick, Adam, 1852. 'On the slate rocks of Devon and Cornwall.' *Quarterly Journal of the Geological Society*, 8: 1: 1-19.

Smiles, Samuel, 1878. *Robert Dick baker of Thurso geologist and botanist*. London: Murray.

Speakman, Colin, 1982. *Adam Sedgwick geologist and Dalesman 1785-1873*. Heathfield: Broad Oak Press.

Stott, Rebecca, 2013. "'Tennyson's Drift": Evolution in *The Princess*.' Pp. 13-34 in Purton (2013a).

Taylor, Michael A., and Anderson, Lyall I., 2016a in press. 'Tennyson and the geologists. Part 2. Saurians and the Isle of Wight.' *Tennyson Research Bulletin*, 10.5, 2016, forthcoming.

_____, and Anderson, Lyall I., 2016b in press. 'A note on Alfred Tennyson and Hugh Miller.' *Tennyson Research Bulletin*, 10.5, 2016, forthcoming.

Taylor, Michael A., and Torrens, Hugh S., 2014. 'An anonymous account of Mary Anning (1799-1847), fossil collector of Lyme Regis, Dorset, England, published in *All the year round* in 1865, and its attribution to Henry Stuart Fagan (1827-1890), schoolmaster, parson and author.' *Proceedings of the Dorset Natural History and Archaeological Society*, 135: 71-85.

Tennyson, Alfred, 1830. *Poems, chiefly lyrical*. London: Effingham Wilson.

Tennyson, Hallam, 1897. *Alfred Lord Tennyson. A memoir*. 2 vols. London: Macmillan.

Tietze, Frederick I., 1957. 'Tennyson at Cambridge: a poet's introduction to the sciences.' *Transactions of the Wisconsin Academy of Sciences, Arts and Letters*,

46: 221-223.

Tomko, Michael, 2004. 'Varieties of geological experience: religion, body, and spirit in Tennyson's *In Memoriam* and Lyell's *Principles of Geology*.' *Victorian Poetry*, 42: 113-133.

Wennerbom, Alan J., 1999. *Charles Lyell and Gideon Mantell, 1821-1852: their quest for elite status in English geology*. D.Phil. thesis, University of Sydney.

Wheeler, Alwyne, 1983. 'The private memoirs of Jonathan Couch (1789-1870) of Polperro.' *Journal of the Royal Institution of Cornwall*, new series: 9: 2: 92-145.

Wilson, Leonard G., 1972. *Charles Lyell. The years to 1841: the revolution in geology*. New Haven: Yale University Press.

NOTES ON CONTRIBUTORS

LYALL I. ANDERSON and MICHAEL A. TAYLOR are Honorary Visiting Research Fellows at the School of Museum Studies, University of Leicester, and previously Principal Curators of Invertebrate and Vertebrate Palaeontology, respectively, at National Museums Scotland, Edinburgh, where Taylor is a Research Associate.

PHOEBE BRAITHWAITE is joint winner of the Tennyson Essay Prize 2013. After gaining her first degree from Balliol College, Oxford, she is now studying for her PhD at Harvard University.

ROBIN BRUMBY contributes poems to many magazines, including *Acumen*, *The Journal* and *HQ*. He is a member of the Tennyson Society Executive Committee and has spoken at Tennyson conferences and study weekends.

LINDA K. HUGHES is Addie Levy Professor of Literature at Texas Christian University, Fort Worth, Texas and has written widely on Victorian literature, on publishing history and on women's studies. She edited the *Cambridge Introduction to Victorian Poetry* (2010).

ROBERT SELBY is completing a PhD at Royal Holloway, University of London, on the poetry of Mick Imlah, together with a collection of his own poetry. He received a Highly Commended in the Faber New Poets Scheme of 2013/14.

JAMES TOZER is joint winner of the Tennyson Essay Prize 2013. Having gained his first degree from Magdalen College, Oxford, he is now working for *The Economist*.

JANE WRIGHT is Senior Lecturer in English Literature at the University of Bristol and a member of the Tennyson Society Publications Board. She has published essays on authors including Coleridge, Carlyle, Tennyson, Browning, Arnold and Hopkins.