Elizabeth Philpot's fossil sepia ichthyosaurs

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Fossil sepia drawings of an ichthyosaur skull from the collection of Elizabeth Philpot (1779–1857): a new addition and the present location of the specimen

The sketch that Elizabeth Philpot (1779–1857) sent to Mary Buckland (1797–1857) on 9 December 1833 (Fig. 1a), is a much-celebrated example of the use of fossil sepia as a drawing medium. Taken from a specimen in the Philpot sisters' collection, it shows an ichthyosaur skull with a well-preserved sclerotic ring and a rostrum displaying many small teeth, but with the bones of the skull and neck unprepared. Philpot seems to have made several copies of this drawing; e.g. a second version (Fig. 1b), also at Oxford, and one at the Geological Society (Fig. 1c), probably that donated by Henry De la Beche (1796–1855) on 25 March 1834.

A fourth, previously unpublished, sepia drawing, *not* by Philpot, has been identified at the Yorkshire Museum, together with a letter from the artist, Anne Wickham (1764–1857), presenting it to the museum's Keeper, John Phillips (1800–1874) (Fig. 1d). Anne and her sister Harriet (1765–1847), daughters of Lt Col. Henry Wickham (1731–1804), a retired soldier and banker, of Cottingley Hall, Bingley, Yorkshire, and his wife Elizabeth Lamplugh (1738–1815), were descended from a long line of distinguished York clergy. From 1804, Elizabeth lived in the city with her daughters, and after her death in 1815, the daughters were supported financially by their elder brother William (1761–1840), a diplomat and spymaster. Harriet's interests were botanical (there are two albums of her plant watercolours in the Yale Centre for British Art), while Anne's seem to have been geological. In late 1833 Anne and Harriet were in Lyme Regis accompanied by their friends Major James Chadwick (1789–1859) and his wife Anne Isabella née Markham (1795–1870) who was from York and, like the Wickhams, had family connections to Minster clergy. As the Chadwicks were then living in Budleigh Salterton in Devon it was perhaps at their invitation that the Wickhams joined them in Lyme Regis.

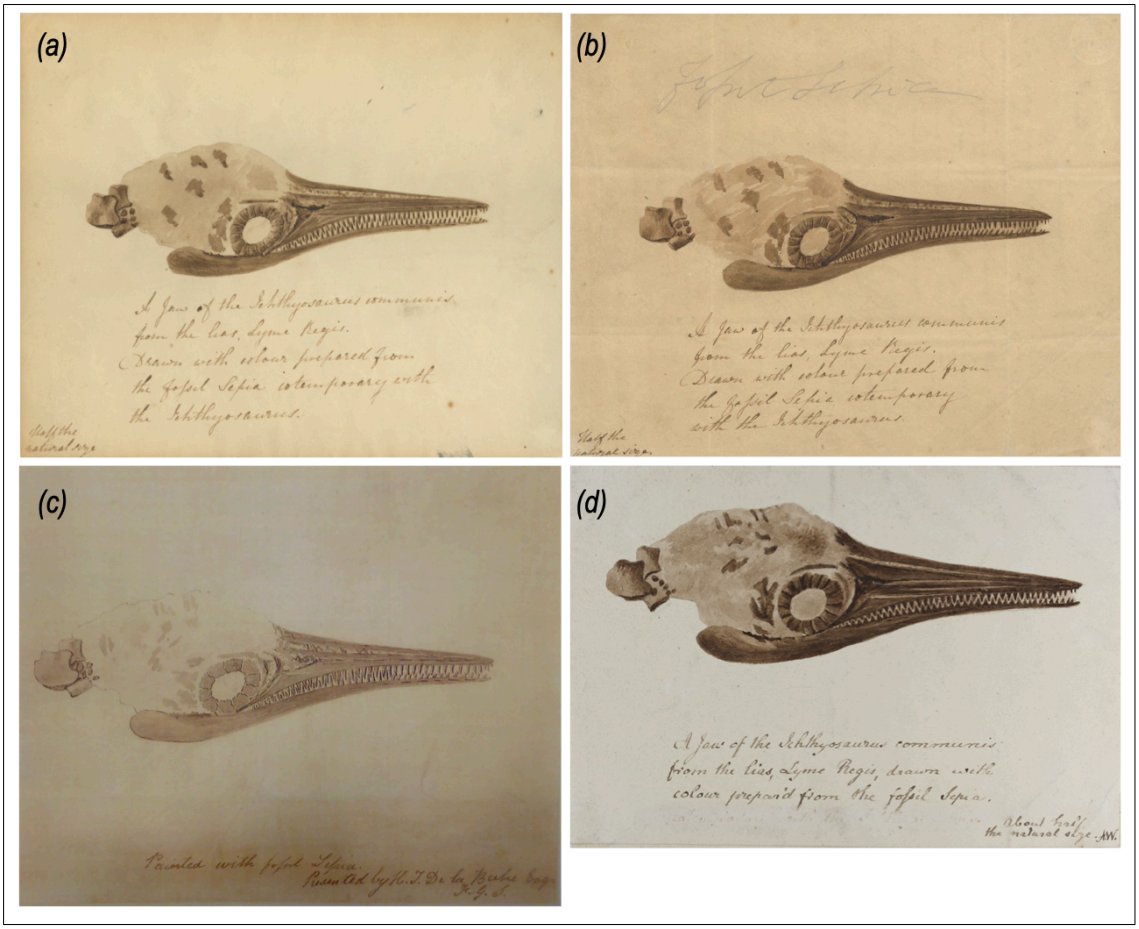

Figure 1. Drawings in fossil sepia. (a) by Elizabeth Philpot, enclosed with her letter of 9 Dec. 1833 to Mary Buckland (Oxford University Museum of Natural History WB/A/3/022): 'A Jaw of the Ichthyosaurus communis / from the lias, Lyme Regis. / Drawn with colour prepared from / the fossil Sepia contemporary with / the Ichthyosaurus' with 'Half the natural size' in the lower left corner; (b) by Elizabeth Philpot (OUMNH WB/A/3/022); (c) presented by H.T. De la Beche to the Geological Society (LDGSL/642 Reproduced courtesy of the Geological Society of London); (d) by Anne Wickham, Yorkshire Museum (YORYM:2026.6): 'A Jaw of the Ichthyosaurus communis / from the lias, Lyme Regis, drawn with / colour prepar'd from the fossil Sepia.' and in the lower right corner, 'About half the natural size. A.W.'

In her letter to Phillips, dated Lyme Regis 23 December 1833 (Yorkshire Philosophical Society Archive, University of York GB 193. YPS/18/2007 Box 5a.), Anne describes visiting 'The Misses Philpots who have a very fine collection of all the fossil remains that have been found on this coast'. Her visit must have been after Elizabeth Philpot wrote to Mary Buckland on 9 December, as Anne's letter begins by mentioning that 'As the original drawing of the one I enclose has been sent to Dr Buckland, I venture to offer mine, if you think it worthy a place in your portfolio at the Museum'. Anne's drawing in fossil sepia (Fig. 1d) closely resembles Philpot's drawing, including the caption, but with the last line scratched out.

Drawn to the same scale and dimensions as Philpot's sketches, Wickham's shows the same view of the skull, suggesting that it is a copy of the second Philpot drawing (the original having been sent to Oxford before Wickham's visit) and not drawn directly from the specimen itself. Wickham also wrote that she and Mrs Chadwick had bought 'a few small specimens' from Lyme fossil dealer Mary Anning (1799–1847) which they intended to present to the Yorkshire Museum. Their donation of fossil sepia, an ichthyosaur paddle and other fossils, along with that of the sepia drawing, was reported in the *York Herald* on 12 July 1834.

Identification of fossil sepia

Fossil cephalopods with preserved sepia ink sacs were first identified from the Lias of Lyme Regis in the mid 1820s by Mary Anning. She brought them to the attention of William Buckland (1784–1856) and it was perhaps either Anning or Philpot who first had the idea that the fossil sepia could be reconstituted as a drawing medium. In 1826, Buckland sent a sample to sculptor Francis Chantrey (1781–1841) to test as a pigment. Chantrey duly used it in a drawing which he showed to 'a celebrated painter', perhaps David Wilkie (1785–1841), who, unaware of its origin, 'pronounced it … of excellent quality' (Buckland 1836). Contemporary records do not reveal the subject of Chantrey's drawing, but according to Lee (1875) it was a sketch of the very fossil from which the sepia had been obtained. Although Chantrey's drawing was made in 1826, Buckland only announced the identification of fossil sepia on 6 February 1829, in his Geological Society paper describing Anning's pterodactyle and coprolites. However, Buckland's published paper gave no details of the sepia, although he did later describe and illustrate specimens in his 1836 Bridgewater Treatise.

Wickham's letter included a formula for the production of the fossil sepia ink: 'The Sepia bag was ground down very fine & then prepar'd into a sort of cake, with Gum Arabic & brown sugar - the proportions, an Oz. [ounce] of Gum Arabic & one fourth of Sugar, & when used it works as smooth as modern sepia'. This must surely have come directly from Philpot, and have been her (or Anning's?) own formula. The sugar was probably added to improve the flexibility of the brittle Gum Arabic which acted as a binder for the pigment. For use, the cake would be wetted and rubbed.

A fashion for fossil sepia?

Drawing with fossil sepia provided by Anning seems to have been popular in and around Lyme Regis in the 1830s. Lyme historian George Roberts (*c.*1804–1860) noted that 'Miss Anning works up for friends the sepia of these bags, and beautiful drawings have been made from it' (Roberts 1839). This implies that Anning was providing prepared sepia, perhaps as cakes ready for use, as well as the fossils themselves. Around 1836, John Murray (*c.*1786–1851) visited Anning and acquired sufficient fossil sepia ink to print multiple copies of several lithographed plates for his publications, including one of *Pentacrinites* from Lyme Regis as the frontispiece for his 1838 book *A Portrait of Geology* (Sharpe 2023). Murray (1847) also later recalled that Anning had shown him a fossil sepia drawing of an ichthyosaur which Chantrey had made for her.

Attached to the tablet of a specimen of *Sepiateuthis* from Lyme Regis in the Sedgwick Museum, University of Cambridge, is a small sketch of what appears to be an organ grinder (Fig. 2). Captioned 'Drawing in fossil Sepia Lyme', it is signed 'C. Jenyns'. This may be Charles Jenyns (1798–1887), a barrister and amateur artist who probably also drew a mountain landscape 'Coloured with fossil Sepia procured from the Lias at Lyme in Dorsetshire' now in the Linnean Society's archive (MS651). Although Jenyns had likely acquired the sepia specimen in Lyme and was the probable donor to the Cambridge museum, there is no further evidence that definitively links the specimen to Anning.

Figure 2. (a) Sepiateuthis, Lias, Lyme Regis (CAMSM X 50488), (b) 'Drawing in fossil Sepia Lyme' by C. Jenyns.

Sedgwick sepia Sturge skull

Coincidentally, the small ichthyosaur skull that features in the 1833 fossil sepia drawings by Philpot and Wickham is also in the Sedgwick Museum. The specimen (Fig. 3a), which is in the round, has been prepared to expose the back of the skull and the cervical vertebrae. This corresponds with a drawing in a letter, probably from early 1834, from Philpot to William Buckland. This drawing (Fig. 3b), which shows the prepared

Figure 3. (a) Ichthyosaur skull (CAMSM J.47057);
(b) drawing of ichthyosaur skull by Elizabeth Philpot, 1834 (OUMNH WB/A/1/361).

specimen at natural size, was not made using fossil sepia, although it was accompanied by a fossil sepia drawing of a fossil ink sac in Philpot's collection. The Somerset fossil collector Thomas Hawkins (1810–1889) had visited Lyme, Philpot told Buckland, 'and obligingly took the trouble of clearing the limestone from the specimen and has developed the remainder of the bones'. Buckland had expressed interest in figuring the skull in his Bridgewater Treatise but, in Philpot's opinion, Hawkins' preparation work had rendered it too fragile to lend. According to Philpot's letter of 9 December 1833, Mary Anning considered 'this Jaw the most perfect perfect [sic] specimen she has ever met with'. Does this frustrating ambiguity imply that the fossil had been found by Anning? Or had the Philpots actually found it, and was it simply the best that Anning had ever seen?

The Philpot fossil collection was given to Oxford in 1880, but this skull was presented to the Sedgwick in 1919 by Julia Sturge (1846–1926), daughter of Alexander Clunes Sherriff (1816–1878) Liberal MP for Worcester 1865–78, and widow and second wife of physician William Allen Sturge (1850–1919), whom she married in 1886. Sturge was the son of William Sturge (1820–1905) and Charlotte Allen (1817–1891), and named after his father and in memory of his mother's cousin, William Allen (1770–1843) a founding member of the Geological Society (Sturge 1928). The Sturges were a long-established Quaker family of land surveyors, amongst whom was John Player (1725–1808) (Torrens & Gill 2018). W.A. Sturge, however, trained in medicine, in Bristol, London and Paris. From 1877 he and his first wife, Emily Bovell (1841–1885), one of the 'Edinburgh Seven' women medical graduates, had a practice on Wimpole Street in London but in 1881, as Emily's health declined, they moved to Nice on the French Riviera. Sturge remarried after Emily's death and remained in Nice until his retirement in 1907.

Sturge's interests, post-retirement, were mainly archaeological, and he built up an important collection of flint implements at his home, Icklingham Hall, near Mildenhall in Suffolk. These went to the British Museum after his death, while a collection of European Tertiary fossils from his time living and travelling on the continent was left to the Natural History Museum. In 1919, his widow disposed of further possessions, including presumably the ichthyosaur skull, at about the time of her move to Winscombe in Somerset.

Although W.A. Sturge's grandfather, Jacob Player Sturge (1796–1857), was Philpot's contemporary, we know of no connection between the Sturges and the Philpot family, nor do we know how Sturge acquired Philpot's fossil. Neither William nor his grandfather seem to show a particular interest in fossils, and although William was a member of the Bristol Institution, there are no records that he ever made any geological donation to its museum. He did publish a paper on agricultural geology in the *Transactions of the Institute of Surveyors* in 1874, but this contains no more than the geological knowledge expected of a competent surveyor.

Elizabeth Philpot was the last of the three sisters who lived in Lyme. On her death in 1857, their house and fossil collection passed to their nephew John Philpot (*c.*1809–1878), whose widow gave the fossils to Oxford. Elizabeth was, it seems, a careful custodian, reluctant to lend fragile fossils and reminding borrowers, especially Buckland, to return specimens. It appears unlikely that she would have disposed of such a fine ichthyosaur skull so it may have left the collection between 1857 and 1880 and passed through several intermediaries, before ending up, in the first decade of the 20th century, in the possession of William and Julia Sturge at Icklingham Hall.

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Acknowledgements
We are grateful to Simon Knell who first located the Wickham drawing in 1993; and for the assistance of Deborah Hutchinson, Bristol Museum; Richard Bull; and Mike Taylor; and to Danielle Czerkaszyn, Oxford University Museum of Natural History; Lydia Dean, Borthwick Institute for Archives, University of York; Caroline Lam, Geological Society; and Matt Riley, Sedgwick Museum who also provided details and illustrations of material in their care and allowed their reproduction here.

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