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Melville's Copy of Thomas Beale's *The Natural History of the Sperm Whale* and the Composition of *Moby-Dick*

Steven Olsen-Smith

HERMAN MELVILLE'S COPY OF THOMAS BEALE'S *The Natural History of the Sperm Whale*, discovered in the 1930s and then owned by successive private collectors until Houghton Library acquired it in 1960, contains the closest evidence available to the lost manuscript of *Moby-Dick* and illuminates more fully than any other archival resource Melville's use of source materials in his writing. Howard P. Vincent first consulted Melville's copy for *The Trying-out of Moby-Dick* (1949), where he observed that most of Melville's marginalia had been erased from the book. Judging "not many words were erased," Vincent expressed hope for "a future examination of the markings under infra-red rays."¹ But in *Melville's Marginalia*, Walker Cowen deciphered many of Melville's erased markings without technical assistance, and although he did not recover many of Melville's erased words, Cowen showed that the book had once been heavily annotated.² With financial support from the William Reese Company and Boise State University, technical assistance at the Fogg Art Museum, and support from staff at Houghton Library, I worked collaboratively with Dennis C. Marnon to recover all of Melville's markings and substantial portions of his annotations. Transcriptions of the recovered marginalia in *Natural History of the Sperm Whale* first appeared at *Melville's Marginalia Online* in 2006 in a digital surrogate format that has since been replaced—with some instances of revised readings—by photographic images of the pages Melville marked and annotated. Made possible by Harvard University's *Open Collections Project*, the new virtual record of Melville's marginalia serves as the present essay's source for citation.³ Along with illustrating an

1 Howard P. Vincent, *The Trying-out of Moby-Dick* (New York: Houghton Mifflin, 1949), 129; hereafter cited parenthetically.

2 Wilson Walker Cowen, ed., *Melville's Marginalia*, 2 vols., Harvard Dissertations in American and English Literature (New York: Garland, 1987), 1:175-198. Cowen completed his dissertation in 1965.

3 "Melville's Marginalia in Thomas Beale's *The Natural History of the Sperm Whale*," *Melville's Marginalia Online*, ed. Steven Olsen-Smith, Peter Norberg, and Dennis C. Marnon, <<http://melvillemarginalia.org/>>; Thomas Beale, *The Natural History of the Sperm Whale* (London: Van Voorst, 1839),



Figure 1. Frontispiece of Herman Melville's copy of Thomas Beale's *The Natural History of the Sperm Whale*. Houghton call number: *AC85.M4977.Zz839b. All illustrations in this article are from Melville's copy of Beale and are reproduced by permission of Houghton Library. The volume is 20 cm. tall.

array of unexplored source borrowings for *Moby-Dick*, the recovered marginalia reveal Melville's original notes for finely crafted allusions and similes and his development of the book's romantic and tragic character, including his changing conceptions for the catastrophic ending of *Moby-Dick*.⁴

At 191 pages, and combined with a 201-page account of southern whaling experiences, Beale's 1839 *The Natural History of the Sperm Whale* expanded significantly upon the author's earlier 58-page pamphlet, *A Few Observations on the Natural History of the Sperm Whale* (London: Effingham Wilson, 1835). The comprehensive sweep of Beale's intentions for the larger work is indicated by its full title:

The Natural History of the Sperm Whale: Its Anatomy and Physiology—Food—Spermaceti—Ambergris—Rise and Progress of the Fishery—Chase and Capture—“Cutting In” and “Trying Out”—Description of the Ships, Boats, Men, and Instruments Used in the Attack; with an Account of its Favourite Places of Resort. To Which is Added, a Sketch of a South-Sea Whaling Voyage; Embracing a Description of the Extent, as well as the Adventures and Accidents that Occurred During the Voyage in which the Author was Personally Engaged.

Melville's acquisition of this book is documented by two inscriptions in his hand near the tops of the half-title and of the blank facing endpaper: “Herman Melville / New York, July 10th 1850,” in ink (see figure 2), and “Imported by Putnam for me / \$3.38,” in pencil.⁵ In all probability Melville set about reading and marking the book immediately

Houghton call number: *AC85.M4977.Zz839b, by permission of Houghton Library. References to Melville's copy of Beale are hereafter cited parenthetically by page and line numbers. Unless specified as unerased, all marginalia cited in this study should be assumed erased. In my transcriptions of Melville's annotations and notes, unrecovered phrases and words, and unrecovered portions of erased words appear within brackets as a question mark flanked by dashes, thus [—?—]; highly likely readings appear within brackets, thus [word], with conjectural readings preceded by question marks, thus [?word]; editorial commentary in brackets is italicized, thus [*word*]. Recovery methods included magnification of the marginalia under varying degrees of light and enhancement of high-resolution photographs using layering and sharpening features of Adobe Photoshop. At an early stage of recovery, infra-red photography performed at Fogg Art Museum helped to confirm or disqualify some readings of erasures that display vestiges of graphite, but the technology proved less effective than Vincent had hoped.

4 I am indebted to *Melville's Marginalia Online* student interns Scott Clark, Dustin N. Hunt, Joshua Preminger, and Nathan Spann for assistance in verifying and documenting late versions of this essay, to Jeremy Jensen for web development at melvillemarginalia.org, and to Shawna Hanel, of the Boise State University Department of Art, for guidance with imaging software.

5 Melville presumably began writing *Moby-Dick* the preceding February, but no published record indicates exactly when he placed his order with the Manhattan bookstore of George Palmer Putnam at 155

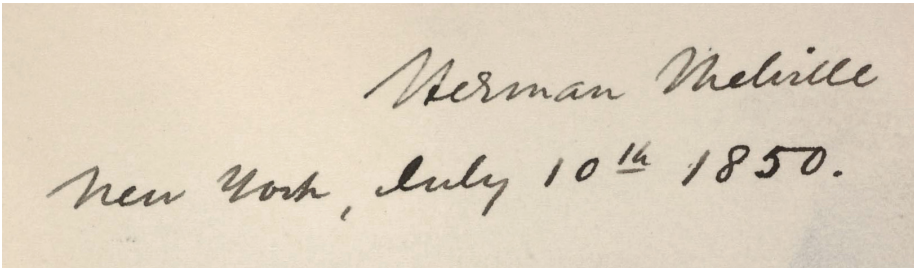
A photograph of a piece of aged, light-colored paper with handwritten text in dark ink. The text is written in a cursive script. The top line reads "Herman Melville" and the bottom line reads "New York, July 10th 1850."

Figure 2. Melville's signature and date of acquisition, July 10, 1850, inscribed in ink on the half-title.

after acquiring it on July 10, 1850. By July 16 he left New York City on vacation with his family and arrived at the Melville family farm in Pittsfield, Massachusetts; and three weeks later on August 7 Melville's invited guest Evert Duyckinck wrote from Pittsfield to his brother George that "Melville has a new book mostly done—a romantic, fanciful & literal & most enjoyable presentment of the Whale Fishery—something quite new."⁶ Duyckinck's report of Melville's progress coincides with a projection Melville had made in June to his London publisher Richard Bentley that the new work would be completed by "the latter part of the coming autumn" (*Correspondence*, 163). But in fact *Moby-Dick* was not completed until June of the following year. The prolonged delay began with Melville's purchase in September of an adjacent farm, which he named Arrowhead, and the subsequent removal of the Melville family from New York to their new permanent residence. As Hershel Parker observes, Melville's spontaneous decision to relocate seems to have originated in his elation at revisiting the Berkshires for the first time since his youth, combined with his exhilaration at befriending Nathaniel Hawthorne, then a resident of nearby Lenox.⁷ Melville's likely suspension of manuscript

Broadway, New York City, which Melville had begun frequenting as early as March 1849; see Melville to Evert A. Duyckinck, Boston, March 3, 1849, in *Correspondence*, ed. Lynn Horth, vol. 14 in *The Writings of Herman Melville*, eds. Harrison Hayford, Hershel Parker, and G. Thomas Tanselle (Evanston and Chicago: Northwestern University Press and the Newberry Library, 1994), 120-121; hereafter cited parenthetically. Melville may have placed the order around April 29, for on that date he borrowed from the New York Society Library two other titles for use in his manuscript, both by William Scoresby: *An Account of the Arctic Regions*, 2 vols. (Edinburgh: Constable, 1820), and *A Journal of a Voyage to the Northern Whale Fishery* (Edinburgh: Constable, 1823). For other books on whales and whaling owned or borrowed by Melville, see Vincent, 128.

6 Jay Leyda, *The Melville Log: A Documentary Life of Herman Melville, 1819-1891, With a Supplementary Chapter*, 2 vols. paged consecutively (New York: Gordian Press, 1969), 385; hereafter cited parenthetically.

7 Hershel Parker, *Herman Melville: A Biography, Volume 1, 1819-1851* (Baltimore and London: Johns Hopkins University Press, 1996), 779; hereafter cited parenthetically.

composition during this period of domestic upheaval and relocation—a period that might nonetheless have allowed pockets of reading time—may account in some degree for the substantial amount and genetic character of the marginalia in his copy of Beale's book.

Melville's copy of *Natural History of the Sperm Whale* is bound in dark green publisher's cloth and housed in a later green cloth slipcase. The book has been rebacked, with the original spine remounted. Abrasions on its die-stamped cloth boards and splits at its corners reflect the book's complicated provenance. On the rear pastedown an original binder's ticket reads, "Bound By Westleys & Clark. London," and a Houghton Library label displays the Harvard call number *AC85.M4977.Zz839b. On the front pastedown there are two bookplates: a leather bookplate, "Ex Libris Frank J. Hogan," and a generic Harvard College Library paper gift plate bearing the name of the presenter, Alfred C. Berol. The two bookplates illuminate little of the book's complex and largely undocumented provenance since Melville's ownership. Presumably the book was among the estimated 1,000 volumes owned by Melville at the time of his death on September 28, 1891, and dispersed over succeeding months among family members, friends, and booksellers.⁸ That it shortly afterward joined the holdings of a library with circulating collections is suggested by several markings in the book. Vestiges of an unidentified ink institutional stamp remain on the half-title, the rest of which was apparently removed by use of chemicals; and the Dewey classification number "599/5" (Science/Zoological Sciences-Animals/Mammalia/Whales) is written on the verso of the title page and in the bottom margin of page v. At the top of the spine a faint rectangular shape, slightly less faded than the surrounding cloth, most likely indicates the size and location of a now missing shelf label. Rectangular shadowing on the verso of the rear free endpaper may indicate where a library label or plate was affixed but later removed, leaving a horizontal strip of adhesive residue at the top edge of the shadowing where the slip had adhered. Similar traces of glue on the facing pastedown may well indicate that the book once bore a pocket for library date slips. In the upper right corner of the front free endpaper, an erased pencil price of "1⁰⁰" could have been applied by an American bookseller after Melville's death or by a staff member of the unidentified library that housed the book.⁹

8 For the appraisal of Melville's estate, see William Charvat, "Melville's Income," *American Literature* 15 (November 1943): 251-261. Merton M. Sealts Jr. provides the fullest discussion of the dispersal of Melville's library in *Melville's Reading* (Columbia: University of South Carolina Press, 1988), 3-14.

9 Dennis C. Marnon first identified the later institutional markings in Melville's copy of Beale's *The Natural History of the Sperm Whale* and worked out the likely significance of the fadings, discolorations, and glue spots in the usual places for library call number labels, library rules slips, and circulation pockets. He also guided me toward key printed evidence and sales catalogs that document the provenance of the volume.

The copy came to light in the mid-1930s, when the New York bookseller Max Harzof acquired it serendipitously while purchasing a collection of books on nautical subjects, according to David A. Randall, who reports being present in Harzof's Manhattan establishment of G. A. Baker & Company when the books were sorted and the copy of *The Natural History of the Sperm Whale* first recognized and duly valued as a volume once owned by Herman Melville. According to Randall's recollection in a letter to Merton M. Sealts Jr., the discoverer of Melville's copy was Jacob Blanck, who would later edit the standard *Bibliography of American Literature*.¹⁰ Both bookmen occupied desks at G. A. Baker & Co. in 1935, when their early roles as protégés of Harzof overlapped briefly. Randall's testimony adds interest to a cryptic pencil autograph at the top right of the book's rear free endpaper: "J. B.," dated November 20 or 30 of 1927 or 1937 in diminutive numerals. The initials may link the inscription to Jacob Blanck, yet none of the dates supports the attribution. Blanck joined Harzof in 1935 and left to work for R. R. Bowker & Company by 1936, by which year Randall also had moved on to become Manager of the Rare Books Division at Scribner's, through whose agency the present slipcase was made and presumably the repairs to the spine were performed.¹¹ A Scribner's stamp appears on a four-flap cloth-covered wrapper made to fold around the volume for insertion in the slip case, and the initials may instead have been recorded by the binder who performed the work.

It is unclear who acquired the book directly from Harzof, through whose hands also passed another important source for the composition of *Moby-Dick*, Melville's copy of Owen Chase's *A Narrative of the Most Extraordinary and Distressing Shipwreck of the Whale-ship Essex*,¹² which figures prominently in connection with erased marginalia in Melville's copy of *The Natural History of the Sperm Whale*. But Randall himself reports having owned both books (perhaps at different times) and having sold them to Frank J. Hogan, whose plate appears in the copy of Chase as well as in the copy of Beale (Randall, 210). Beginning with Hogan's possession, the two books have kept constant company throughout a succession of owners. From the sale of Hogan's library in 1945 they were acquired by Perc Brown, of New Jersey. Publicity for the sale first alerted Melville scholars to the existence of the books, for it was during Brown's ownership that they were examined by Howard P. Vincent and then by Charles Olson, who in

10 David A. Randall, *Dukedom Large Enough* (New York: Random House, 1969), 208-209; hereafter cited parenthetically; and Randall to Merton M. Sealts Jr., November 21, 1962, from a collection of Sealts's working papers and correspondence in the possession of the author.

11 For the sequence of Randall's and Blanck's periods under Harzof, see Randall, 3-25; and Roger E. Stoddard, "Jacob Nathaniel Blanck," *Proceedings of the American Antiquarian Society* 85 (1975): 47-51.

12 Owen Chase, *Narrative of the Most Extraordinary and Distressing Shipwreck of the Whale-ship Essex, of Nantucket*. (New York, W.B. Gilley, 1821), Houghton Library call number: *AC85.M4977.R821c (B), with a digital version at <<http://pds.lib.harvard.edu/pds/view/12334607>> (accessed January 11, 2011).

1947 published Melville's bound-in notes to Chase's *Narrative*.¹³ The following year Sealts included both copies in "Melville's Reading: A Check-List of Books Owned and Borrowed."¹⁴ The books later came into the possession of Alfred C. Berol, who in 1960 presented them to Houghton Library.

As Cowen documented in 1965, Melville's marginalia in Beale's *Natural History of the Sperm Whale* consist of both markings (scores, checks, circles, underlinings, etc.) and annotations (pencil notes typically associated with specific passages of text), as well as ink and pencil inscriptions in the front of the book and a series of pencil notes in the back. Randall's account of the discovery shows that most of Melville's pencil marginalia were already erased when the book surfaced at G. A. Baker & Company circa 1935, but no further evidence is available to reveal exactly when or by whom the damage was done, and the institutional ink markings (unacknowledged in Randall's account) could have been effaced after the volume was recovered. Before the revival of Melville's reputation in the 1920s, any bookseller who acquired the book would have had understandable motives for making it a "clean copy," as Randall suggests (208); and a librarian or librarian's assistant might have had similar cause for removing pencil markings and notes from the volume. Yet either would in all probability have begun at the title page, where Melville's notation, "Turner's pictures of Whalers were suggested by this book," remains unerased (see figure 3).¹⁵ Nor does the odd juxtaposition of unerased and erased marginalia in the book (in some cases on the same page) reflect the thoroughness one might reasonably expect from a bookseller or librarian bent upon restoring the book as closely as possible to its original state. The relevance of the marginalia to the composition of *Moby-Dick* may indicate Melville himself made the erasures. As Jay Leyda observed, Melville habitually discarded and sometimes destroyed his manuscripts and family papers (1:xiii-xiv; see also *Correspondence*, 787-790).¹⁶ Yet it is possible he did so in the present instance not as an act of concealment but rather as a safe-guard against adding the same material twice to an increasingly long and sprawling manuscript. Some erased marginalia, however, along with the text associated

13 Charles Olson, *Call Me Ishmael* (New York: Reynal & Hitchcock, 1947).

14 Merton M. Sealts Jr., "Melville's Reading: A Check-List of Books Owned and Borrowed," *Harvard Library Bulletin* 2, no. 3 (Autumn 1948): 387; and *Harvard Library Bulletin* 3, no. 1 (Winter 1949): 121.

15 For an examination of possible influences by J. M. W. Turner on *Moby-Dick*, see Robert K. Wallace, *Melville & Turner: Spheres of Love and Fright* (Athens and London: University of Georgia Press, 1992).

16 Erasures in Melville's copy of Beale present a situation different from that of potentially scandalous marginalia in other books such as his copy of *The New Testament*, where erasures and cut-outs were likely performed by surviving family members following Melville's death in 1891; see Brian Yothers, "One's Own Faith: Melville's Reading of the *New Testament and Psalms*," *Leviathan: A Journal of Melville Studies* 10, no. 3 (October 2008): 39-59.

*Turner's pictures of Whalers
new suggested by this book.*

THE
NATURAL HISTORY
OF
THE SPERM WHALE:

ITS ANATOMY AND PHYSIOLOGY—FOOD—
SPERMACETI—AMBERGRIS—RISE AND PROGRESS OF THE FISHERY—
CHASE AND CAPTURE—“CUTTING IN” AND “TRYING OUT”—
DESCRIPTION OF THE SHIPS, BOATS, MEN, AND
INSTRUMENTS USED IN THE ATTACK;
WITH AN ACCOUNT OF ITS FAVOURITE PLACES OF RESORT.

TO WHICH IS ADDED, A SKETCH

OF A

SOUTH-SEA WHALING VOYAGE;

EMBRACING A DESCRIPTION OF THE EXTENT, AS WELL
AS THE ADVENTURES AND ACCIDENTS THAT OCCURRED DURING THE
VOYAGE IN WHICH THE AUTHOR WAS PERSONALLY ENGAGED.

By THOMAS BEALE, SURGEON,
DEMONSTRATOR OF ANATOMY TO THE ECLECTIC SOCIETY OF
LONDON, ETC., AND LATE SURGEON TO
THE “KENT” AND “SARAH AND ELIZABETH,” SOUTH SEAMEN.

LONDON:
JOHN VAN VOORST, 1, PATERNOSTER ROW.

M.DCCC.XXXIX.

1839

Figure 3. Title page, with Melville's pencil inscriptions "Turner's pictures of Whalers / were suggested by this book" (top) and "1839" (bottom).

with them, bear no influence on the book Melville published. Unless these were tied to manuscript passages discarded by Melville, they appear to have been inscribed and not used, but still subsequently erased. Without conclusive documentation, it must be acknowledged that the erasures could have been performed by any person associated with the book from Melville's ownership to its discovery in the 1930s, or by any combination of these persons.

The volume's complicated provenance likewise raises the question of whether the marginalia in Melville's copy of *Natural History of the Sperm Whale* are entirely the product of his hand; its unknown duration as part of a circulating collection makes this question especially important. All of the annotations and notes in the book, whether unerased or erased, share significant characteristics with Melville's hand in other documents of the period, and they are verifiably by Melville. Markings in the book also conform recognizably to the style and character of markings in other books known to survive from his library. Whereas these lack the compelling corroborative quality of recognizable letter forms, a majority of markings in the book are tied to passages of text that bear demonstrable influence on the composition of *Moby-Dick*, and this "traceable" quality also argues strongly that they are by Melville. Not all of the markings furnish such genetic evidence, nor is it beyond the realm of possibility that some traceable marginalia were applied by subsequent readers. Still, Melville's exclusive authorship of all the marginalia in his copy seems confirmed by stylistic uniformity among the markings, and by the fact that traceable marginalia are, as a class, represented by every variety of marking that appears in Melville's copy.

In scope and complexity, the significance of *The Natural History of the Sperm Whale* to the composition of *Moby-Dick* surpasses that of any other source book from which Melville is known to have drawn. In "Cetology," chapter 32 of *Moby-Dick*, Melville's narrator Ishmael identifies Beale's study along with Frederick Debbell Bennett's *Narrative of a Whaling Voyage Round the Globe* as "the only two books in being which at all pretend to put the living sperm whale before you, and at the same time, in the remotest degree succeed in the attempt."¹⁷ Of the many books Melville acquired and used as cetological sources for *Moby-Dick*, his personal copies of Chase and Beale had alone been known to survive until the early 1990s (when volume 1 of his copy of Bennett's two-volume work surfaced), and his copy of *Natural History of the Sperm Whale* remains the only recovered sourcebook extensively marked and annotated by Melville for purposes of manuscript composition.¹⁸ Yet the book's erasures have made

17 Herman Melville, *Moby-Dick*, ed. Harrison Hayford, Hershel Parker, and G. Thomas Tanselle, vol. 6 of *The Writings of Herman Melville* (Evanston and Chicago: Northwestern University Press and the Newberry Library, 1988), 135; hereafter cited parenthetically.

18 Melville's copy of Chase's *Narrative* (cited in note 12) includes bound-in memoranda, but is much less extensively marked than his copy of Beale's *Natural History*. Volume 1 of Melville's copy of Bennett's

it difficult for scholars accurately to assess the extent of the evidence. Whereas Vincent underestimated the quantity of Melville's marginalia by judging "not many words were erased," Randall exaggerated it, asserting that "about seven hundred words in his autograph remained decipherable"—by which term Randall seems to have meant *unerased* (208).¹⁹ Cowen's incomplete transcription is not useful for tabulation because it reproduces little of Melville's substantially erased but recoverable annotation in the copy.

Recovery of the erased marginalia for the present study now makes it possible to tabulate Melville's annotations and notes as well as his markings in *Natural History*. Melville wrote into the entire volume approximately 330 to 340 words, including abbreviations, numeric figures, and ampersands. Fifty-one of these are in ink, comprising his autograph front inscription and a descriptive listing of the book's line-drawings. Pencil words include three front inscriptions; twenty-seven textual annotations amounting to approximately 216 words; and, on the rear endpapers, a sequence of notations amounting to over forty-six words.²⁰ Twenty-three of the textual

Narrative of a Whaling Voyage Round the Globe, 2 vols. (London: Richard Bentley, 1840), a source for *Mardi* as well as for *Moby-Dick*, is also marked only sparsely by Melville. See Kent Bicknell's account of the discovery quoted in Merton M. Sealts Jr., "A Third Supplementary Note to Melville's Reading," *Melville Society Extracts* 112 (March 1998): 12-14.

19 Long after he had sold the book to Frank Hogan, Randall reported that when he owned the book he had tried but failed to bring out Melville's erased annotations (Randall to Merton M. Sealts Jr., November 21, 1962, cited in note 10).

20 Transcribed imperfectly by Cowen (1:198), Melville's reading notes and memoranda appear on the verso of the rear free endpaper and on the rear pastedown, with each initial entry underlined as a heading: "Naturalist's Library. Vol. 6th. / Vide Langsdorff—Captain D'Wolf, / Brazil fishery, / & page 342 Indian Fishery, / [one line of text undeciphered due to damage caused by the removal of a library slip] / U.S.S. Pea[cock] stove by a whale, & / finally stove by a rock. My old friend / Com: Ap Catesby Jones." On the pastedown Melville recorded: "Daniel Boon—neighbor's spout &c / (1100 lb avg of a bu ox)." At 18.5-6 of *The Natural History of the Sperm Whale* Melville recorded a check mark alongside Beale's allusion to "the volume upon cetacea in the Naturalist's Library," identified by Beale on page 61 as Volume 6 but numbered variously in other editions of the *Naturalist's Library*. These are references to *The Natural History of the Ordinary Cetacea or Whales* (Edinburgh: W.H. Lizars, 1837), attributed by Beale to the series editor Sir William Jardine, but written by Robert Hamilton. Melville's maternal uncle Captain John D'Wolf sailed with G. H. von Langsdorff and appeared in Langsdorff's *Voyages and Travels in Various Parts of the World, during the Years 1803, 1804, 1805, 1806, and 1807* (Philadelphia: George Philips, 1817), a source for *Typee*. Langsdorff's account of the Brazil whale-fishery appears on pages 68 and 69 of *Voyages and Travels*. Melville's reference to the "Indian Fishery" alludes to Langsdorff's section (pages 342-343) on tools and methods of whaling employed by natives of the Aleutian Islands. Commodore Ap Catesby Jones commanded the US Navy's Pacific Squadron from aboard the USS *United States* while Melville served aboard the flagship in 1844. Dennis Marnon (to

annotations are erased, ranging from one to twenty-eight words each and totaling around 168 words: roughly seventy-eight percent of the marginal annotations and fifty percent of Melville's words in the volume as a whole.

Melville's copy of *The Natural History of the Sperm Whale* is one of the most heavily marked books known to survive from his library. The book contains 214 pencil

whom I am indebted for researching the note on Jones and for establishing the reading of "Peacock") brought to my attention the following passage from Gene A. Smith, *Thomas Ap Catesby Jones: Commodore of Manifest Destiny* (Annapolis: Naval Institute Press, 2000), 68: "Another unexpected problem occurred on 22 March [1827] when a large sperm whale collided with the sloop, the second whale collision during the voyage. And although the first collision was not noteworthy, this one felt as if 'the ship had struck a rock.' Jones believed they were extremely fortunate because the whale had only glanced off the ship. Had there been a direct impact the sloop probably would have sunk." Although far removed from the commodore as an ordinary seaman in 1844, Melville in chapter 69 of *White-Jacket* (1850) reports that Jones later conversed sociably with him in February 1847 (apparently on the subject of the USS *Peacock*, which had run aground in 1841) at a Russian Ministry ball in Washington DC, where Melville sought an office appointment. "Daniel Boon—neighbor's spout" (another reading supplied by Dennis Marnon) here parallels Melville's comparison (in chapter 88 of *Moby-Dick*, "Schools and Schoolmasters") of a lone whale to "venerable moss-bearded Daniel Boone," aptly footnoted in the Norton Critical Edition of *Moby-Dick*, ed. Hershel Parker and Harrison Hayford (New York: W. W. Norton, 2002) as the "American frontiersman (1734-1820), remembered for moving westward, time and again, to be out of sight of smoke from a neighbor's chimney" (307). Melville's notation, "1100 lb av[er]ag[e]. of a bu[ll] ox," was first transcribed by Charles Olson, as established by Marnon's research in Olson's surviving papers at the University of Connecticut, Storrs.

is again vociferated, and the boats shoot rapidly away from the danger, (see *frontispiece*).

Mad with the agony which he endures from these fresh attacks, the infuriated "sea beast" rolls over and over, and coils an amazing length of line around him; he rears his enormous head, and, with wide expanded jaw, snaps at everything around; he rushes at the boats with his head,—they are propelled before him with vast swiftness, and sometimes utterly destroyed.

He is lanced again, when his pain appears more than he can bear; he throws himself, in his agony, completely

Figure 4. Portion of page 165, with Melville's pencil circles marking a paragraph he included among the opening "Extracts" of *Moby-Dick*.

markings, thirty of which remain unerased. The markings consist of check marks (applied singly except for two instances where Melville has grouped three check marks together in a row [116.5-6, 162.25]); underlinings; straight, wavy, and arced marginal scores; x's (normally employed in pairs as reference points linking an annotation to the passage of text which prompted it); circles (recorded in the margins alongside text, not encircling text); and fists, or indexes, meant to represent a pointing hand. Melville applied the check marks to brief passages ranging from words and phrases to individual sentences of up to five printed lines. He also underlined brief passages, including individual words and phrases as well as clauses occupying less than two complete printed lines. To longer passages in the copy Melville applied marginal scores, and these range in vertical length from two printed lines to page-length blocks of text. Melville used the circle to mark both brief and long passages—most often applying it in place of and in addition to the check mark and underscore to mark words, phrases, clauses, and sentences, but in at least one case applying a pair of circles alongside the beginning- and end-points of a passage to encompass multiple lines (unerased at 165.15-21; see figure 4). The erased fist in Melville's copy of Beale was missed by Cowen but identified by him in other books recovered from Melville's library. It appears three times in *The Natural History of the Sperm Whale*, where it points twice to passages dealing with the breathing patterns of sperm whales (44.11-15, 24-30), and once to one of Melville's own notations (in the top margin of page 72). Combinations of different markings alongside a number of passages—such as the joint appearance of circles and checkmarks—indicate Melville consulted and marked some portions of *Natural History* more than once, perhaps with different objectives.

As the fullest and most authoritative study of *Physeter macrocephalus* available in 1850, *The Natural History of the Sperm Whale* has been described by scholars as predominantly a source of factual information to Melville. Melville's reliance upon Beale's book for "accurate and authoritative facts" was first addressed by Vincent, who identified *Natural History* as the "primary source book for Melville in composing the cetological section of *Moby-Dick*" (128). This assessment was repeated by Leon Howard and James Barbour, who concurred that Melville acquired Beale's book "to add factual material about whales and whaling to the narrative to give it copiousness and authenticity."²¹ Lending new support to these judgments is an erased annotation written by Melville in the top margin of page 72 in Beale's chapter 8, "Anatomy and Physiology of the Sperm Whale," where the author reports having once examined a sperm whale skeleton. Melville's annotation, "This [—?—] the auth[—?—]ity of Beale," indicates his conception of *Natural History* as a ready source of authoritative information. The partially deciphered word is either "authenticity" or "authority." Either

21 James Barbour, "The Composition of *Moby-Dick*," *American Literature* 47 (1975): 348; and Leon Howard, *Herman Melville: A Biography* (Berkeley: University of California Press, 1951), 162.

term accords with Melville's use of subject matter on the page to establish Ishmael's osteological pretensions in "A Bower in the Arsacides" (chapter 102 of *Moby-Dick*), where Melville's first-person narrator reports having measured a sperm whale skeleton himself (see Vincent, 360-361). As revealed in appendix 1 to this essay, subject matter corresponding with marked text and annotations in Melville's copy of *Natural History* is evident in forty of the 135 chapters in *Moby-Dick*, as well as in its opening "Extracts" and concluding "Epilogue." Appendix 2 includes an additional fourteen chapters that display correspondence with text Melville read in Beale but did not mark, resulting in a total of fifty-four chapters with corresponding subject matter, plus the "Extracts" and "Epilogue." These correspondences range from evidence that strongly suggests direct appropriation—with key terms and phrases from the source book clearly incorporated within the text of *Moby-Dick*—to less definitive instances of correspondence that may or may not derive primarily from marked or unmarked text in Melville's copy of Beale. Appendix 3 identifies marked text and annotations in Melville's copy of Beale for which no evidence of influence has been identified in the published text of *Moby-Dick*.

It is significant that chapters in *Moby-Dick* displaying compelling evidence of appropriation or influence are most heavily clustered within the range extending from 32 to 103. Vincent identified chapters 32 to 105 as the book's "cetological center" for their preponderance of expository, information-based subject matter on whales and whaling. Material dealing with such topics as the sperm whale's form, skeleton, brain and skin, other marine life forms, and industry practices such as chasing of whales and processing of blubber all figure prominently in this section of *Moby-Dick*. Information on these subjects was necessary for Melville's intention to inform his narrative with factual data on whales and whaling, and their presence supports judgments by Vincent, Howard, and Barbour that Melville relied heavily on Beale for concrete information. In appropriating passages, Melville typically imported key terms and expressions that link his own writing back to the source, as exemplified by his use of the following information in Beale's chapter 4, on "Breathing":

When a whaler has once noticed the periods of any particular sperm whale, which is not alarmed, he knows to a minute when to expect it again at the surface, and how long it will remain there . . . at each breathing time the whale makes from sixty to seventy expirations and remains, therefore, at the surface ten or eleven minutes. (marked at 43.1-8 and partially marked at 43.27-29)

Melville's derived observation in "The Fountain" (chapter 85 of *Moby-Dick*) reports that if a sperm whale stays on the surface for "eleven minutes, and jets seventy times, that is, requires seventy breaths, then whenever he rises again, he will be sure to have his seventy breaths over again, to a minute" (371). Here the information on regularity and number of respirations, along with the identical phrase "to a minute," reveal Melville's

debt to the text he marked in his copy of Beale. The freshly conceived discourse and modest number of verbatim words are quite typical of Melville's static borrowings from Beale—borrowings by which he transferred information from source to manuscript with minimal creative alteration or response. Among other instances of appropriation listed in the appendixes to this essay, static results can be examined in Melville's use of information from Beale on the whale's ears (marked at 30.3-7 and used in chapter 74, "The Sperm Whale's Head," 331), muscular tissue (marked at 88.7-11 and used in chapter 68, "The Blanket," 305), and cranial cavity (marked at 113.25-28 and used in chapter 80, "The Nut," 348).

By such means, Melville can be said to have added factual information to his narrative with aims of "copiousness and authenticity." But in fact Melville's marginalia in *Natural History of the Sperm Whale* and his use of marked and unmarked material in *Moby-Dick* display much greater variety of intention than concern for factual accuracy. Even in the predominantly expository chapters of *Moby-Dick*, where one might reasonably expect straightforward borrowing of factual matter to be most widely represented, Melville made fewer static borrowings than dynamic renderings displaying characteristic aspects of literary craft and creativity. These imaginative reworkings of material in *Natural History* reveal less intent by Melville to achieve authenticity than rhetorically to develop the imaginative world of *Moby-Dick*. While Howard and Barbour may well be correct in emphasizing that factual authority was the factor that led Melville to acquire his copy of *The Natural History of the Sperm Whale*, they failed adequately to acknowledge the aesthetic outcomes of his engagement with the book. Vincent did address to a fuller extent the literary character of Melville's borrowings, but his limited access to the copy while it was privately owned prevented close analysis of the erased marginalia. Moreover, Vincent's observations of aesthetic outcomes were sporadic rather than comprehensive, failing to identify practices and patterns of appropriative alteration that Melville employed with remarkable consistency. Now that the erasures are largely recovered, Melville's dynamic appropriations from Beale provide an opportunity to analyze the compositional processes and artistic outcomes of Melville's engagement with this source.

In terms of cetological content, Melville's practice was not merely to inform but also to promote and elevate his subject. This strategy led him to heighten and embellish material from Beale in both rhetorical and descriptive ways. For instance, Melville adopts and amplifies the rhetoric of his source when he addresses the relative statures of the sperm whale and right whale, or Greenland whale, in "Cetology" (chapter 32 of *Moby-Dick*). In *Natural History* Beale objects to the perceived superiority of the latter species in a language that is assertive but diplomatic in style:

The Greenland Whale, or *Balæna mysticetus*, has so frequently been described in a popular manner, that the public voice has long enthroned him as monarch

of the deep, and perhaps the dread of disturbing such weighty matters as a settled sovereignty and public opinion, may have deterred those best acquainted with the merits of the case from supporting the more legitimate claims of his southern rival to this pre-eminence. (partially marked at 2.21-28)

In reading this passage, Melville was drawn particularly to Beale's regal imagery and juristic idiom. For it is through these rhetorical elements that Melville hyperbolized his source in "Cetology," with the narrator Ishmael calling the Greenland whale a "usurper upon the throne of the seas . . . not even by any means the largest of the whales":

Reference to nearly all the leviathanic allusions in the great poets of past days, will satisfy you that the Greenland whale, without one rival, was to them the monarch of the seas. But the time has at last come for a new proclamation. This is Charing Cross; hear ye! good people all,—the Greenland whale is deposed,—the great sperm whale now reigneth! (135)

As Vincent observes, Melville "transformed Beale's words into a stirring announcement of his whaling intention in *Moby-Dick*" (132). Along with aggrandizing the sperm whale itself, his intention can be seen here to encompass the art of representing it, as revealed by his substitution of allusions by "great poets" for Beale's account of "popular" misconceptions. Promotional and artistic purposes prevail throughout the book's cetological content and narrative conclusion in versions ranging from the comic, as displayed here, to the profound, as displayed by appropriative outcomes discussed below. The means by which Melville fulfilled them in *Moby-Dick* consist both of openly communicated narrative content and of rhetorical strategies revealed only through source study.

As indicated by Ishmael's attention to the role of physical size in the purported rivalry of sperm and right whales, measurement figured prominently in his claim for the sperm whale's superiority. But Vincent and subsequent researchers have not recognized the systematic manner in which Melville adapted and altered physical details of the sperm whale from *Natural History* in order to buttress Ishmael's position. In his copy of the book, Melville marked Beale's dimensions of the sperm whale's mature length and circumference ("eighty-four feet" and "thirty-six feet" at 27.14-22), its tail ("from twelve to fourteen in breadth" at 24.23-24) and blubber ("about fourteen inches" at 32.1-3), and bones (the largest rib being "6 feet 1/2 an inch" at 85.16-17 and the largest vertebra being "2 feet 4 inches" in width and "2 feet 7 1/2 inches" in depth at 81.15). Then, in the composition of *Moby-Dick*, he systematically enlarged upon what he had marked, adding six feet to the length of the sperm whale and four to its circumference in chapter 103, "Measurement of the Whale's Skeleton" (452), six feet to the width of the flukes in chapter 86, "The Tail" (375), an inch to the thickness of

its blubber in chapter 68, “The Blanket” (305), and more than two feet to the span of its largest rib in “Measurement of the Whale’s Skeleton” (453), where he also added approximately three feet to the dimensions of its largest vertebra (454). So from his own osteological research performed in “A Bower in the Arsacides,” Ishmael attributes to sperm whales a length of up to ninety feet, a girth of almost forty feet, and a tail span of more than twenty feet (452).²² “Such, and so magnifying,” writes Melville in “The Fossil Whale” (chapter 104), “is the virtue of a large and liberal theme! We expand to its bulk. To produce a mighty book, you must choose a mighty theme. No great and enduring volume can ever be written on the flea” (456). What Melville gave to the sperm whale he withheld from the Greenland whale, rejecting Beale’s length of “seventy feet” for the species in *Natural History* (marked at 15,22-26) to report its length as “sixty feet” in *Moby-Dick* (452).²³

With unabashed falsification of the facts, then, Melville’s systematic enlargement of sperm whale dimensions he marked in *Natural History* fulfill the proclamation he made while amplifying Beale’s rhetoric in “Cetology.” As all readers of *Moby-Dick* recognize, a flamboyant disregard for objectivity underlies the entire chapter, where Ishmael puts forth a grandiose mock solution to the empirical challenge of whale taxonomy. Commenced by Melville primarily in response to an essay on whales he encountered in the *Penny Cyclopædia*, the parody owes much to material he subsequently encountered

22 According to Bennett, Melville’s other primary resource for sperm whale information, “The largest size authentically recorded of the Sperm Whale is seventy-six feet in length, by thirty-eight feet in girth; but whalers are well contented to consider sixty feet the average length of the largest examples they commonly obtain” (154). Bennett assigns a maximum measurement of “nineteen feet” to the width of the sperm whale’s tail (156) and, with Beale, attributes to the blubber a maximum depth of “fourteen” inches (166). Melville was undoubtedly aware of Bennett’s measurements in his own copy of *Narrative of a Whaling Voyage Round the Globe*, but his systematic and more-or-less proportional increase of the dimensions he marked in *Natural History* indicate that Beale was his primary source for augmentative renderings in *Moby-Dick*. Among Melville’s known sources, Beale alone supplies measurements for ribs and vertebrae. In addition to augmenting Beale’s measurements for the largest rib and vertebra, Melville added half an inch to Beale’s width of the sperm whale’s smallest, or terminal, vertebra, which is identified as “1 1/2 inches” in *Natural History* (unmarked at 82.21-23) and “two inches” in *Moby-Dick* (454).

23 Both authors attribute their measurements for the Greenland whale to Captain William Scoresby. In *An Account of the Arctic Regions*, Scoresby claims never to have seen a Greenland whale that “exceeded 60 feet in length” and that the largest ever measured was “67 feet” (1:452). Beale may have confused length with weight in Scoresby’s observation, “A stout whale of sixty feet in length, is of the enormous weight of seventy tons” (1:462), which would appear to be Melville’s source for the Greenland whale’s maximum length in *Moby-Dick*.

“The animals which inhabit the sea are much less known to us than those found upon land, and the economy of those with which we are best acquainted is much less understood; we are therefore too often obliged to reason from analogy where information fails, which must probably *ever continue to be the case*, from our unfitness to pursue our researches in the unfathomable waters.”

John Hunter.

“What an impenetrable veil covers our knowledge of cetacea! groping in the dark, we advance in a field strewn with thorns.”

Lesson.

“No branch of zoology is so much involved as that which is entitled cetology.”

Scoresby.

“Toutes ces indications incompletes ne servent qu'à mettre les naturalists à la torture.”

Cuvier.

Figure 5. Epigraphs from the verso of the half-title.

in *Natural History of the Sperm Whale*.²⁴ Beale himself announces early in “Introductory Remarks,” “It is not my intention, were it in my power, to enter into the inquiry as to the true method of dividing the cetacea into groups, families, genera, or species” (marked at 12.11-13), and when Melville encountered this disclaimer in his copy he seized upon it with a note to himself in the side margin, “Take quotation.” Beale’s words are quoted in “Cetology” along with baffled pronouncements by “the best and latest authorities” that Melville lifted without acknowledgment from the verso of Beale’s half-title, where they appear as epigraphs to *Natural History* (see figure 5):

“Unfitness to pursue our research in the unfathomable waters.”
“Impenetrable veil covering our knowledge of the cetacea.” “A field strewn with thorns.” “All these incomplete indications but serve to torture us naturalists.” . . . Thus speak of the whale, the great Cuvier, and John Hunter, and Lesson, those lights of zoology and anatomy. (134-135)

24 “Whales,” *The Penny Cyclopædia of the Society for the Diffusion of Useful Knowledge*, 27 vols. (London: Charles Knight, 1833-1843), 27:271-298; see Kendra H. Gaines, “A Consideration of an Additional Source for Melville’s *Moby-Dick*,” *Extracts* [later *Melville Society Extracts*] 29 (January 1977): 6-12.

In addition, Melville quotes Beale's reference to "the utter confusion which exists among the historians of this animal" (marked at 9.30-10.1) before brandishing Ishmael's own credentials as one who has "swam through libraries and sailed through oceans" (136). As Vincent notes, the command of cetological lore implied by these references is entirely dependent on Beale's book, and that surreptitious form of irony compounds Ishmael's openly audacious pledge in the chapter to supply a "systematized exhibition of the whale in his broad genera" (134). Sensationalizing the task as "the classification of the constituents of a chaos," Melville's parody consists, first, in appropriating material from *Natural History* to emphasize the challenging magnitude of the problem and, second, in whimsically solving the matter with an absurdly simple taxonomy: his extended division of cetacea "into three primary BOOKS (subdivisible into chapters)" of folio, octavo, and duodecimo whales, ranging from sperm whales to porpoises (136).

As already indicated by his reference in "Cetology" to the allusions of great poets, Melville's *figurative* use of the book image hints at the compelling relationship in his compositional processes between factual information and poetic expression. In fact that connection can already be inferred from Melville's earliest known reference to the manuscript of *Moby-Dick* in his letter to Richard Henry Dana of May 1, 1850, where he projects for the work in progress a difficult marriage of factual accuracy and literary craftsmanship:

About the "whaling voyage"—I am half way in the work, & am very glad that your suggestion so jumps with mine. It will be a strange sort of a book, tho', I fear; blubber is blubber you know; tho' you may get oil out of it, the poetry runs as hard as sap from a frozen maple tree;—& to cook the thing up, one must needs throw in a little fancy, which from the nature of the thing, must be ungainly as the gambols of the whales themselves. Yet I mean to give the truth of the thing, spite of this. (*Correspondence*, 162)

Whereas Melville here makes no reference to source books, his marginalia in Beale reveal that source-use is central to the aesthetic struggle he describes. Indeed the "truth" to which Melville refers can be taken to imply factual material he was already mining from works by Scoresby and Bennett (see notes 5 and 18). When he acquired his copy of *The Natural History of the Sperm Whale* two and a half months later, Beale's book opened up significant opportunities for the coveted achievement of poetry from blubber.

Whatever his words may imply about a combined achievement of fact and imagination, Melville's disregard for authenticity in his accounts of sperm whale dimensions and taxonomical challenges shows his predilection for the fanciful side of the struggle he described to Dana. As a "romance of adventure," as he described his whaling manuscript in a letter to his British publisher Richard Bentley (*Correspondence*,

163), *Moby-Dick* was conceived not as a work of straightforward realism but of imagination, a work rooted in objective reality but concerned with that realm primarily as a foundation for the exploration of transcendent ideas.²⁵ In the previous year Melville had confessed to his earlier publisher John Murray that he coveted “the freedom & invention accorded only to the Romancer & poet.” Justifying to Murray his radical departure from straightforward narrative to poetic and philosophical subject matter in his third book, *Mardi* (1849), Melville declared, “In my narrative of *facts* I began to feel an invincible distaste for the same; & a longing to plume my pinions for a flight, & felt irked, cramped & fettered by plodding along with dull common places” (*Correspondence*, 106). In the letter to Bentley describing *Moby-Dick*, Melville’s explicit reference to himself as a “romancer” indicates his intentions differed profoundly from Beale’s purposes in *The Natural History of the Sperm Whale* (*Correspondence*, 163). That conflict of intentions was itself a source of imaginative impetus for Melville in the composition of *Moby-Dick*, with the author responding creatively not just to Beale’s factual information but, as “Cetology” suggests, to his empiricist approach.²⁶ In his “Introductory Remarks,” Beale forthrightly complains that the sperm whale “has been subjected to constant misrepresentation” by prior authorities who have “been obliged to compile their accounts from sources inaccurate and false, on which they ought not to have depended” (1). As an opening salvo against “that heated imagination which leads some enthusiasts to see nothing in nature, but miracles and monsters” (2), Beale’s introductory chapter reveals his post-Enlightenment intention to supplant superstition and legend about the whale’s anatomy and behavior with conclusions based on empirical observation, thereby demystifying an obscure area of natural history. With such objectives, *The Natural History of the Sperm Whale* embodies the spirit and methodology of modern science, but Melville’s adaptive use of Beale’s book

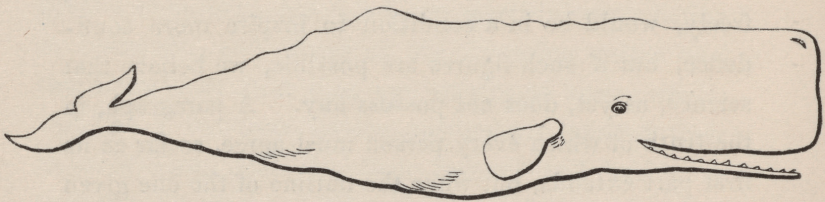
25 For an introduction to the romance genre, see Richard Chase, *The American Novel and its Tradition* (Garden City, N.Y.: Doubleday, 1957), particularly chapters 1 and 5. For a persuasive defense of Chase’s ideas that furnishes abundant evidence of nineteenth-century American conceptions of the romance genre, see G. R. Thompson and Eric Carl Link, *Neutral Ground: New Traditionalism and the American Romance Controversy* (Baton Rouge: Louisiana State University Press, 1999), particularly chapters 1, 2, and 4.

26 Vincent observed that “in a sense part of ‘Cetology’ is a parody of the efforts of limited men to pigeonhole the phenomena of Nature” (141). J. A. Ward called “Cetology” a “total mockery” of the scientific approach in “The Function of the Cetological Chapters in *Moby-Dick*,” *American Literature* 28, no. 2 (1956): 176. Recent judgments have echoed their readings, with Elizabeth Duquette stating that in “Cetology” Melville sets up a “naive faith in systematic knowledge” only to discredit it later in the book in “Speculative Cetology: Figuring Philosophy in *Moby-Dick*,” *ESQ: A Journal of the American Renaissance* 47 (1st Quarter 2001): 36. Ward’s discussion of the philosophical and symbolic functions of the cetological chapters has since been extended by Duquette, and by Robert M. Greenburg, “Cetology: Center of Multiplicity and Discord in *Moby-Dick*,” *ESQ: A Journal of the American Renaissance* 27 (1st Quarter 1981): 1-13.

subject, to subjoin a comparative outline sketch of the two.



F. Cuvier.



Colnett, Huggins, and Beale.

Some of the errors with which naturalists have been involved, may have arisen from the great disproportion in size which exists between the male and female of

Figure 6. Sperm whale outlines on page 14.

reveals artistic aims and affiliations by which nineteenth-century romantic authors frequently resisted the scientific in preference for the legendary and mythic, the poetic and symbolic, the mysterious and sublime.²⁷

27 For a discussion of the "rear-guard action" waged by European romantic thinkers against "the spirit and implications of Modern Science," see Hans Eichner, "The Rise of Modern Science and the Genesis of Romanticism," *Publications of the Modern Language Association* 97, no. 1 (January 1982): 8-30. Eichner builds upon the work of Morse Peckham, "Toward a Theory of Romanticism," *Publications of the Modern Language Association* 66 (March 1951): 5-23, as does R. P. Adams in his studies of American romantic conflicts

While the conflict of intentions is most pronounced in “Cetology,” comparable dismissal of empirical efforts to penetrate the ocean’s mysteries can be seen in Melville’s three-chapter sequence beginning with Chapter 55, “On the Monstrous Pictures of Whales,” where the sperm whale’s indefiniteness contributes to its symbolic treatment in the narrative, and where Melville concludes his sequence with a correspondent preference for imaginative flight over objective observation. The sequence appears to have been prompted by Beale’s words about prevailing ignorance of the sperm whale’s external form in “Introductory Remarks,” where he states that until “the appearance of Mr. Huggins’ admirable print, few, with the exception of those immediately engaged in the fishery, had the most distant idea even of the external form of this animal” (marked at 2.5-7). Later in the chapter the author juxtaposes an outline of the sperm whale based in part on the 1834 print “South Sea Whale Fishery” by William Huggins, “taken from actual observation,” with what Beale calls “the imaginary figure” in Frédéric Cuvier’s *De l’histoire naturelle des cétacés* (13, 14; see figure 6).²⁸ In his own copy of *Natural History*, Melville considered the outline based on Cuvier’s illustration in association with Beale’s condemnation of early naturalists’ efforts to classify sperm whales into multiple species. In Beale’s words, “*Desmarest . . .*, however, thought proper to add another to those of Lacapedé, the characters of which he obtained from some Chinese drawing, upon the fidelity of which no dependence can of course be placed” (marked at 10.27-29). Melville’s comic rendering in “Monstrous Pictures of Whales” essentially echoes Beale’s dismissal:

In a word, Frederick Cuvier’s Sperm Whale is not a Sperm Whale, but a squash. Of course, he never had the benefit of a whaling voyage (such men seldom have), but whence he derived that picture, who can tell? Perhaps he got it as his scientific predecessor in the same field, Desmarest, got one of his authentic abortions; that is, from a Chinese drawing. And what sort of lively lads with the pencil those Chinese are, many queer cups and saucers inform us. (263)

with empirical thought: “Romanticism and the American Renaissance,” *American Literature* 23 (1952): 419-432; and “Permutations of American Romanticism,” *Studies in Romanticism* 9 (Fall 1970): 249-268. See also responses to Eichner by Michael S. Kearns and Edward Proffitt, with Eichner’s rejoinder, in “Modern Science and the Genesis of Romanticism,” *Publications of the Modern Language Association* 97, no. 3 (May 1982): 408-412. In “Science and Romanticism,” *Georgia Review* 34 (1980): 55-80, Proffitt argues that nineteenth-century romantic sensibility was often compatible with modern science, and this viewpoint continues in current scholarship, as observed by Jennifer J. Baker in “Natural Science and the Romanticisms,” *ESQ: A Journal of the American Renaissance* 53 (4th Quarter 2007): 387-412.

28 Frédéric Cuvier, *De l’histoire naturelle des cétacés, ou, Recueil et examen des faits dont se compose l’histoire naturelle de ces animaux* (Paris: Roret, 1836).

CHAPTER II.

HABITS OF THE SPERM WHALE.

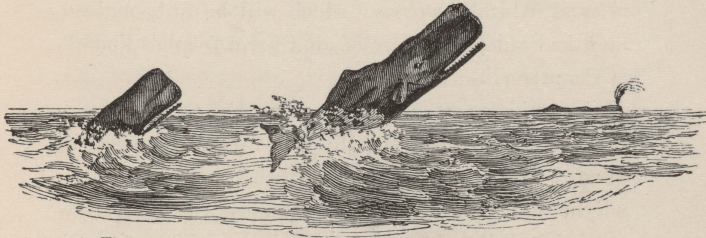


Fig. 1.

Fig. 2. X

Fig. 3.

IT is a matter of great astonishment that the consideration of the habits of so interesting, and in a commercial point of view of so important an animal, should have been so entirely neglected, or should have excited so little curiosity among the numerous, and many of them competent observers, that of late years must have possessed the most abundant and the most convenient opportunities of witnessing their habitudes. I am not vain enough to pretend that the few following pages include a perfect sketch of this subject, as regards the sperm whale; but I flatter myself that somewhat of novelty and originality will be found justly ascribable to the observations I have put together; they are at all events the fruit of long and attentive consideration.—For convenience of description, the habits of this animal are given under the heads of feeding, swimming, breathing, etc.

X There is some sort of mistake in c 2
 the drawing of Fig: 2. The tail part
 is wretchedly crippled & dwarfed, &
 looks altogether unnatural. The head is good.

Figure 7. Page 33, with Melville's pencil annotation: "There is some sort of mistake in / the drawing of Fig: 2. The tail part / is wretchedly crippled & dwarfed, & / looks altogether unnatural. The head is good."

In emphasizing Cuvier's lack of actual experience among whales, Ishmael disparages him as part of an ostentatious and uninformed set of armchair scientists. In this respect, he displays an insider's bravado and in some degree champions empirical advantages of direct observation. But whereas Melville follows Beale in this instance, the same cannot be said of the three-chapter sequence as a whole, in which Melville deliberately obscures the subject Beale had sought to clarify.

"Monstrous Pictures" exploits Beale's data on the historical difficulty of accurately delineating the whale's form but disregards Beale's use of the Huggins illustration as a corrective to Cuvier's, with Ishmael declaring of all pictorial representations that "none can hit it with any very considerable degree of exactness. So there is no earthly way of finding out precisely what the whale really looks like" (264). In the next chapter, "Less Erroneous Pictures of Whales," Melville has Ishmael acknowledge the superiority of the Huggins outline and even credit Beale's *Natural History* as the "best" source of illustrations (265), despite the flawed qualities of one he describes on page 33 of his copy with a comment that remains unerasable (see figure 7). But Melville's overarching intent in "Monstrous Pictures" and "Less Erroneous Pictures" is not accurately to describe and illustrate the whale's form—as Beale had done—but to declare the impossibility of doing so by physical means, with Ishmael finally asserting "that the great Leviathan is that one creature in the world which must remain unpainted to the last" (264). Usurping the place of empirical investigation in these chapters is a calculated strategy of obfuscation and a romantic yearning for spiritual vision, as proclaimed in his final sentence to the sequence in chapter 57, "Of Whales in Paint; in Teeth; in Wood; in Sheet-iron; in Stone; in Mountains; in Stars." Here Melville draws not from Beale but from Plato's *Phaedon* to distinguish the upper realm of spiritual truths from the corrupt lower world of material appearances. In a manner reminiscent of Melville's words to John Murray about his urge for imaginative "flight," Ishmael remarks on the constellation Cetus, "With a frigate's anchors for my bridle-bitts and fasces of harpoons for spurs, would I could mount that whale and leap the topmost skies, to see whether the fabled heavens with all their countless tents really lie encamped beyond my mortal sight!" (271).²⁹ Contrary to the sustained material focus of his source, Melville's trajectory of inquiry moves from factuality to artistry, from real to ideal, from objective observation to inspired vision.

Complaining in "Introductory Remarks" of the abundance of misinformation surrounding sperm whales, Beale rues "the inextricable veil in which the true history of this animal has been wrapped by a multitude of writers" (marked at 21.9-10). Melville marked such passages not from sympathy with Beale's enlightened umbrage

29 See Merton M. Sealts Jr., "Melville and the Platonic Tradition" in *Pursuing Melville: Essays and Chapters* (Madison: University of Wisconsin Press, 1982), 302-303; hereafter cited parenthetically. For the source passage in the edition of Plato likely owned by Melville, see Plato, *Phaedon: or, A Dialogue on the Immortality of the Soul* (New York: William Gowans, 1849), 161.

but from a fascination with the unknowable and with an ongoing rhetorical aim to mystify the subject of sperm whales in *Moby-Dick*. For instance, “The Fountain” (chapter 85) opens with the declaration, “That for six thousand years . . . it should still remain a problem, whether [the whale’s] spoutings are, after all, really water, or nothing but vapor—this is surely a noteworthy thing” (370). Melville here adopts the rhetoric of Beale’s unambiguous complaint in “Introductory Remarks” that “from the earliest periods—from Pliny’s down to the present time, the notion has existed that he constantly ejects water with his breath” (unmarked at 16.12-14), and he does so in spite of evidence he had marked in Beale’s chapter on “Breathing” (42.3-8) that establishes the vaporous character of the whale’s spout. In “The Fountain,” Melville draws additional information from “Breathing” (marked variously from 42.3-8 to 44.24-30) for a discussion of sperm whale respiration, but only further to obfuscate the subject by crediting sailors’ superstitious beliefs that a whale’s spout is “poisonous,” and by writing that the “wisest thing the investigator can do, it seems to me, is to let this deadly spout alone” (373).³⁰ In finally adopting the position that the sperm whale’s spout is “nothing but mist,” Ishmael does so not on the basis of empirical evidence but from his conviction that mist emerges from the heads of whales as “from the heads of all ponderous profound beings, such as Plato, Pyrrho, the Devil, Jupiter, Dante, and so on” (374). Having again drawn information freely from *The Natural History of the Sperm Whale* while undermining its empiricist viewpoint, Melville concludes “The Fountain” with a clear distinction between objective and intuitive knowledge: “Doubts of all things earthly, and intuitions of some things heavenly; this combination makes neither believer nor infidel, but makes a man who regards them both with equal eye” (374).³¹ The material skepticism of this passage indicates Melville’s debt to Plato while its qualified allegiance to otherworldly truths likewise invokes the same spiritual desire that had informed his earlier passage on the constellation Cetus. Yet its overall

30 Melville likely drew additional inspiration for the chapter from Bennett’s *Narrative*, which addresses at length the question not of whether the spout consists of water or vapor, but of whether the sperm whale can eject both vapor and water from its spout, as need requires (150-151). Bennett also observes “the exhaled fluid has been observed to be foetid in odour, and to produce an acrid effect upon the skin” (174), which is likely a source for Melville’s report that the spout is believed by sailors to be poisonous.

31 Comparable appropriations privileging intuitive over empirical perspectives appear in Melville’s “Ambergris” (chapter 92 of *Moby-Dick*), where Melville contradicts information in Beale on the smell of ambergris (described as “offensive” at 132.9-11 but portrayed as fragrant in *Moby-Dick*) to create a thematic dichotomy of earthly corruption and spiritual glory, and also in “Squid” (chapter 59), where Melville alludes to sailor superstitions surrounding the mystique of giant squid, and where he dismisses taxonomical conclusions quoted by Beale (marked at 64.5-24). Among other marginalia keyed to material on cephalopods in *Natural History*, Melville wrote, “Squid a [—?]ing fish,” with the unrecovered word probably connoting “terrifying” or “horrifying,” in response to Beale’s reference to the “*horrid polypus*” (65).

perspective is speculative rather than affirmative, forecasting Nathaniel Hawthorne's well-known judgment that Melville could "neither believe, nor be comfortable in his unbelief."³² The passage depicts the isolated, tentative character of human cognition, involving a conceptual scenario within which Melville habitually represented Ishmael's self-possessed meditations on things unknowable, but in which he also found basis for the destructive solipsism of Ahab.

That penchant for dark existentialist tendencies, too, found a creative outlet in material Melville appropriated from *Natural History of the Sperm Whale*. With Melville's sense of the contingency of human knowledge, it explains his use of whaling legends and superstitions in "Moby Dick" (chapter 41), where they contribute to Melville's depictions of solipsistic terror. There the legendary malice of the white whale is said to derive in part from the rumored ferocity of the species in general, with "some book naturalists—Olassen and Povelsen—declaring the Sperm Whale not only to be a consternation to every other creature in the sea, but also to be so incredibly ferocious as continually to be athirst for human blood" (181). These reports are attributed to the Danish explorers Eggert Ólafsson and Bjarni Pálsson in Beale's "Introductory Remarks" (marked at 4.17-18), which is Melville's source for the anglicized versions of their names, and from which Melville conflates Beale's phraseology about the sperm whale's purported "thirst for the blood of every fish in the sea" and "relish for human flesh."³³ Drawing on material he marked in Beale at 5.21-28, Melville goes on to quote George Cuvier's report that, when encountering sperm whales, "all fish (sharks included) are 'struck with the most lively terror' and 'often in the precipitancy of their flight dash themselves against the rocks with such violence as to cause instantaneous death'" (*Moby-Dick*, 181). In *Natural History*, Beale cites all of these allegations in order to dismiss them on empirical grounds, observing that the whale's throat is barely large enough to swallow a man (marked at 7.4-5), that casualties in the whaling profession typically result from the whale's "violent contortions and struggles to escape" rather than from retaliation against hunters (unmarked at 5.6-8), and that sperm whales are rarely or never seen near shorelines (unmarked at 7.20-23). Noting Melville's use of the legends and his apparent disregard for Beale's refutations, Vincent observed with amusement that Melville "builds up a case" for the sperm whale's ferocity from Beale's reference to authorities whom he sought to discredit (166). But Melville's intention is actually more subtle and complex than the strategy of direct contradiction attributed to him by Vincent, and more pertinent to romantic preoccupations with psychological experience.

32 Nathaniel Hawthorne, *The English Notebooks*, ed. Thomas Woodson and Bill Ellis, vol. 22 in *The Centenary Edition of the Works of Nathaniel Hawthorne* (Columbus: Ohio State University Press, 1997), 163.

33 Beale here erroneously cites legend surrounding not the sperm whale but the narwhal, as reported by Ólafsson and Pálsson in *Travels in Iceland* (London: Philips, 1805), 113.

In *Moby-Dick* Melville invokes legendary terrors surrounding the sperm whale not to make an outright case for their veracity but to assert their lingering influence on the minds of whalers. The sperm whale's thirst for human blood and tyranny among sea creatures, while acknowledged as factually dubious in chapter 41, receive nonetheless potent credit as involuntary suspicions felt at life-threatening moments in the whaling profession, so that "however the general experiences in the fishery may amend such reports as these; yet in their full terribleness, even to the bloodthirsty item of Povelsen, the superstitious belief in them is, in some vicissitudes of their vocation, revived in the minds of the hunters" (181). By endowing legends discarded by Beale with an alternative psychological credence, Melville responds to his source not by contesting Beale's position on empirical grounds but by asserting, through Ishmael, the mind's integral power to shape perception and determine human experience. Demystification of the material world by modern science was a defining source of discontent to the romantic imagination, as expressed in William Wordsworth's oft-quoted complaint, "We murder to dissect," and in Edgar Allan Poe's sonnet "To Science." Like his American contemporaries Poe and Hawthorne, Melville responded to the dilemma in part by turning inward for subject matter—to the still-uncharted depths of the subconscious and to the mysteries of human cognition and spontaneous behavior. In "Moby Dick," the extreme psychological reactions of whalers to harrowing experiences of emotional and physical danger lead into the chapter's account of Ahab's dismemberment, his ensuing madness, and single-minded quest for vengeance.

By augmenting information from Beale's *The Natural History of the Sperm Whale* quantitatively and figuratively, then, Melville developed his work's dual conception of the sperm whale as a source of both physical danger and psychological awe. These intentions likewise shaped his writing of "The Tail" (chapter 86), where whale behaviors marked by Melville in *Natural History* appear simultaneously as hazards to life and limb and as objects of wonder. From Beale's account of the sperm whale's act of "sweeping," which consists in moving the tail slowly from side to side on the surface of the water" (marked at 46.17-19), Melville's narrator describes "the action of sweeping, when in maidenly gentleness the whale with a certain soft slowness moves his immense flukes from side to side upon the surface of the sea," immediately adding "and if he feel but a sailor's whisker, woe to that sailor, whiskers and all" (377). The rendering exemplifies an abrupt thematic transition from tranquility to peril that Melville employs throughout *Moby-Dick*. Here in "The Tail," the combination of feminine softness and fatal battery reveals a narrative perspective attuned to the profundity of paradox, and to the constant state of danger underlying mortal experience. Similar examples occur in the concluding paragraphs of "The Line" (chapter 60), of "Brit" (chapter 58, discussed below), and of "The Mast-Head" (chapter 35), where the would-be "Platonist" lulled into spiritual harmony with the undulations of ocean waves falls precipitously to his death (159).

The closing caveat of the “Mast-Head” chapter, “Heed it well, ye Pantheists!” makes it clear that Melville lacked a sustainable sense of the intuitive affirmation found in works by other romantic writers such as Johann Wolfgang von Goethe, William Wordsworth, and Ralph Waldo Emerson.³⁴ But from philosophical assumptions informing their thought he nonetheless drew a strong impression of the human mind’s conscious and unconscious complicity in shaping the meaning of external phenomena. As James Engell has observed of William Wordsworth’s aesthetic principles, intuitive sensibility progresses in proportion as “the mind associates the particulars of the world with inner feelings and sentiments.”³⁵ For Wordsworth, this intuitive interfusion with the surrounding world provided western humanity with an urgently needed post-Enlightenment basis for religious faith, allowing the “half-creating” mind to behold a sovereign and universal “moral sense” (Engell, 269). Further into “The Tail,” that basic premise of romantic thought informs Melville’s indebted description of a whale slowly diving beneath the surface of the ocean, or “sounding,” with its massive upraised tail perpendicularly descending last into the water. From Beale’s description of a whale “peaking the flukes” thus (marked at 44.8-11 of *Natural History*), Melville writes:

Excepting the sublime *breach*—somewhere else to be described—this peaking of the whale’s flukes is perhaps the grandest sight to be seen in all animated nature. Out of the bottomless profundities the gigantic tail seems spasmodically snatching at the highest heaven. So in dreams, have I seen majestic Satan thrusting forth his tormented colossal claw from the flame Baltic of Hell. But in gazing at such scenes, it is all in all what mood you are in; if in the Dantean, the devils will occur to you; if in that of Isaiah, the archangels. (378)

Melville would postpone his portrayal of “the sublime *breach*” for the dramatic chase episodes at the end of *Moby-Dick* (chapters 133-35), where in the sinking of the *Pequod* we likewise witness a fascination with Milton’s Satan that he shared with Blake, Byron, and Shelley, among other romantic predecessors whose works he had read or would go on to read with great admiration.³⁶ There, it is the “death-grasp” of Tashtego, the

34 While completing *Moby-Dick* in May or June 1851, Melville commented in a letter to Nathaniel Hawthorne on Goethe’s enjoinder to “Live in the all”: “You must often have felt it, lying on the grass on a warm summer’s day . . . This is the *all* feeling. But what plays the mischief with the truth is that men will insist upon the universal application of a temporary feeling or opinion” (*Correspondence*, 194).

35 James Engell, *The Creative Imagination: Enlightenment to Romanticism* (Cambridge, Mass.: Harvard University Press, 1981), 268.

36 For documentary evidence of Melville’s opinions of the character of Satan, see Robin Grey and Douglass Robillard in consultation with Hershel Parker, ed., “Melville’s Milton: A Transcription of Melville’s Marginalia in His Copy of *The Poetical Works of John Milton*,” *Leviathan: A Journal of Melville Studies* 4, nos.

pagan harpooner, that traps a sea hawk at the main mast of the ship, “which, like Satan, would not sink to hell till she had dragged a living part of heaven along with her” (572). Here in chapter 86, the ethos of agonized defiance that concludes his narrative is encapsulated by Melville’s psycho-poetic rendering of the tail’s peak. While the ensuing distinction between imprecatory and mystical impressions draws upon medieval and ancient figures, respectively, the sentiment it contains is patently romantic, involving subjective-idealist notions that inform Wordsworth’s conception of an intuitive interfusion between the human mind and a divinity within nature. In “The Tail,” however, the essential meaning of external phenomena remains ambiguous. Melville shared Wordsworth’s post-Enlightenment sense of religious loss, but in most respects he rejected the poet’s pantheistic resolve. By conditioning sublime impressions on variable states of “mood,” the chapter underscores the contingent character of human perception, and its romantic image of Satan’s fall conveys the frustration of intuitive impasse. In particular, Ishmael’s description of the flukes as momentarily poised and “vibrating” at their peak forms the basis for his observation that the whale’s “gigantic tail seems spasmodically snatching at the highest heaven” (378). Nowhere confirmed by Beale’s accounts, Melville’s addition of this vibrative pause to the whale’s act of “peaking the flukes” enables him to portray the behavior as a symbol of resistant descent. The ultimate significance of the depiction in *Moby-Dick* is that it parallels Ahab’s anguished but unrelenting struggle to reach the divine intelligence he perceives behind and (in its manifestation as the white whale) within the physical world.

Melville’s appropriation of Beale’s factual information as the basis for an extended simile in “The Tail” exemplifies his artistic aim of extracting poetry from blubber, as he described the process of composing *Moby-Dick* to Richard Henry Dana. As I indicated at the outset of the present study, development of signature themes through figurative and poetic response to source text is demonstrably the most prominent goal of extended annotation in Melville’s erased marginalia in *Natural History*. To a limited extent, the practice is discernable from Walker Cowen’s incomplete transcription in *Melville’s Marginalia*, where Cowen transcribed an erased annotation Melville wrote in response to a comparison between swimming animals and flying animals: “A Whale then a species of large condor” (Beale, 116; Cowen, 1:188). Cowen also recovered the majority of Melville’s simplest notes in the margins of his source—those consisting of single words or clauses Melville wrote to identify the content of passages that interested him, such as “Thr[?asher] here” (49), “Squid” (64.5-24), “Brain” (113.9-22), “Dignity of Whaling” (146.11-28), “[S]yr[en]” (150.11), “Bounty discontinued” (152.23-25), “Sounding” (161.12-13), and “Barley Banks” (189.4-6). All appear in the margins of *Natural History*

1-2 (March 2002), 160; and Steven Olsen-Smith and Dennis C. Marnon with Christopher Ohge and Nathan Spann, ed., “Melville’s Marginalia in Marlowe’s *Dramatic Works* and in Selections from Lamb’s *Specimens of English Dramatic Poets*,” *Leviathan: A Journal of Melville Studies* 10, no. 3 (October 2008): 89-90, 105.

by passages devoted to these topics, including the thrasher shark (called the “thrasher” in “Cetology,” 143), discovery of sperm whale habitat off the coast of Japan by the whaleship *Syren*, British termination in 1821 of subsidization for its whaling industry, and water discolorations denominated “banks” off the coast of Brazil. This last instance likewise illustrates Melville’s process of poetic appropriation. As his marginal reference “Barley Banks” seems to suggest, Melville likely saw the Brazil Banks for himself as a sailor in 1841 (Parker, *Herman Melville* 1:190-191), and in the composition of “Brit” (chapter 58 of *Moby-Dick*) Beale’s information on the barley-like appearance of nutrient-rich waters off South America (marked at 61.18-20) assisted his memory when he composed the following simile about right whales grazing in a similar environment of the Indian Ocean:

As morning mowers, who side by side slowly and seethingly advance their scythes through the long wet grass of marshy meads; even so these monsters swam, making a strange, grassy, cutting sound; and leaving behind them endless swaths of blue upon the yellow sea. (272)³⁷

Like the extended simile of Satan’s “colossal claw,” Melville’s pastoral poeticism is here prompted by source text but developed by him far beyond the signification and purpose of that material. In the present instance he creates a figurative dichotomy that organizes his chapter around contrasting associations of the sea and the land, and that builds up to a concluding observation about analogous interior states and the potential terrors of subjective experience: “For as this appalling ocean surrounds the verdant land, so in the soul of man there lies one insular Tahiti, full of peace and joy, but encompassed by all the horrors of the half known life. God keep thee! Push not off from that isle, thou canst never return!” (274).

Aside from the whale/condor comparison, which he did not use in the text of *Moby-Dick*, none of Melville’s extended annotations were recovered by Cowen, and so until now Melville’s poetic application of material he annotated in Beale has gone unrecognized by scholars. Erased annotations deciphered for the present study illustrate his practice of inscribing original references and allusions in the top and bottom margins of his source for subsequent use in the text of *Moby-Dick*. Even where creative elaboration cannot be entirely confirmed owing to paper abrasion, the practice can be detected from decipherable portions of annotation. For instance, Beale’s information on cephalopod species in “Nature of the Sperm Whale’s Food” includes an observation that tentacles “are employed by cuttlefish as anchors, for the purpose of fixing themselves firmly to rocks during violent agitations of the sea” (marked at 60.3-

37 Melville’s footnote to this passage on the subject of the “Brazil Banks” reveals his debt to Beale (*Moby-Dick* 272).

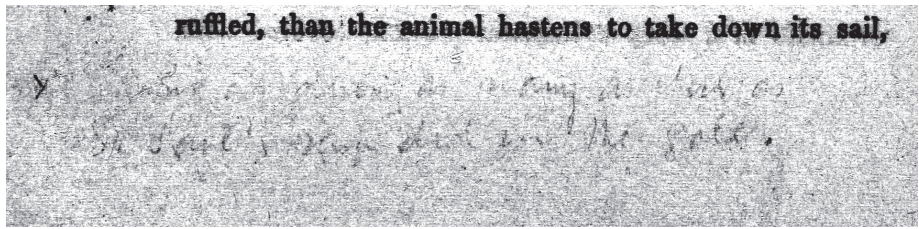


Figure 8. Melville's erased pencil annotation on page 60: "[—?—][—?—][—?—] as many anchors as / Sinbad's ship did in the gale."

5). Melville added in the margin that these creatures weather the elements by dropping "as many anchors as Sinbad's ship did in the gale" (see figure 8)—words alluding to the fourth voyage of Sinbad, where in some translations of the *Arabian Nights* the merchant adventurer casts his ship's supply of anchors during a violent storm.³⁸ On the same page of *Natural History* Melville read of the "argonaut, or paper-nautilus," as being endowed with a shell light enough to float on the surface of the sea and a thin membrane it employs as a sail while using "its tentacula as oars on either side, to direct as well as accelerate its motion" (marked at 60.15-61.3). Discredited by modern marine biology, Beale's description of the nautilus prompted an annotation by Melville that remains lost except for the words, "like so many," a phrase he apparently used to compare the nautilus or their tentacles to yet another object of allusion. Melville makes no references to Sinbad in *Moby-Dick*, but the description of the argonaut in *Natural History* likely influenced his depiction of the *Pequod's* boats pursuing the white whale in "The Chase—First Day" (chapter 133): "Like noiseless nautilus shells, their light prows sped through the sea" (548).

Whereas its brief application in chapter 133 would appear to be significantly reduced from its original conception in his marginalia in *Natural History*, Melville's use of the nautilus image as still prelude to the boat crews' violent encounter with the white whale invokes his familiar thematic pairing of tranquility and peril in addition to larger dark romantic conceptions of the struggle between humanity and nature and, at a still deeper symbolic level, between creature and creator. Poetic elaboration for these purposes is aptly displayed by Melville's response to Beale's account of a whale's death at the hands of hunters in chapter 13 of *Natural History*, "The Chase and Capture of

38 *The Thousand and One Nights; or, The Arabian Nights Entertainments*, trans. E. W. Lane, 3 vols. (London: Murray, 1847), 2:475. For a survey of references to the *Arabian Nights Entertainments* in Melville's writings, see Scott Norsworthy, "Melville's Notes from Roscoe's *The German Novelists*," *Leviathan: A Journal of Melville Studies* 10, no. 3 (October 2008): 17.

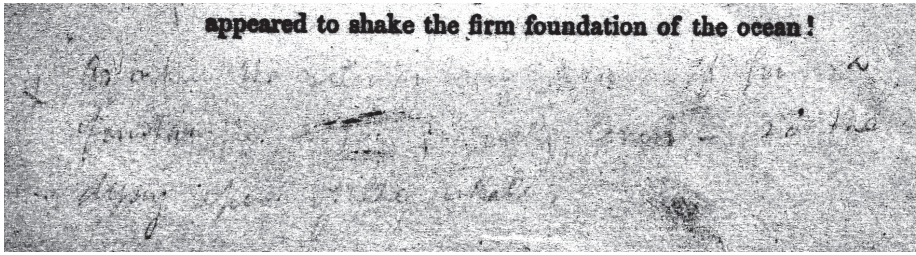


Figure 9. Melville’s erased pencil annotation on page 182: “As when the water issuing [—?—] off from a / fountain [—?—] & slowly lowers—so the / dying spout of the whale.”

the Sperm Whale.” There Beale concludes his account of a protracted battle between a whale and whalers with a provocative depiction of the animal’s death-throes:

As the life’s blood gurgled thick through the nostril, the immense creature went into his “flurry” with excessive fury, the boats were speedily sterned off, while he beat the water in his dying convulsions with a force that appeared to shake the firm foundation of the ocean! (marked at 182.26-31)³⁹

Along with scoring this passage, Melville applied a circle in the side margin, probably to mark Beale’s use of the whaling term “flurry.” In chase and capture episodes of *Moby-Dick* he would duplicate the details of blood from the nostril, the backing off of the boats, and the dying whale’s violent convulsions (see the entries for chapters 61, 73, and 81 in appendixes 1 and 2). But the most substantial outcome of Melville’s focus on the passage is an annotation he keyed to it in the bottom margin of the page (see figure 9):

As when the water issuing [—?—] off from a fountain [—?—] & slowly lowers—so the dying spout of the whale. (182)

Here Melville would seem to be visualizing a sight common at public parks and private estates in which a groundskeeper’s act of closing off a fountain’s water supply pipe results in the spray column’s halting descent and eventual cessation. The figurative comparison is uncorroborated by any factual observation in *Natural History*, but its

39 As Parker points out, as a young man Melville may have encountered this passage in the *West Troy Advocate*, and *Watervliet Advertiser* for October 23, 1839, which reprinted from the *Albany Argus* a review of *The Natural History of the Sperm Whale*. The *West Troy Advocate* had already reprinted from the *Democratic Press*, & *Lansingburgh Advertiser* the first installment of Melville’s own “Fragments from a Writing Desk” (Parker 1:695).

dominant image of descent corresponds with the description of “majestic Satan” and other depictions of transcendent failure in *Moby-Dick*. Melville went on to employ the annotation as a climactic simile for the section of his manuscript that became “The Pequod Meets the Virgin” (chapter 81 of *Moby-Dick*), where an aged, blind, mutilated whale spouts its last breath after Flask delivers its death stroke.

Scholars have disagreed about Melville’s source for chapter 81, but erased marginalia show that in composing the episode Melville drew heavily on *Natural History of the Sperm Whale*.⁴⁰ He patterned the blighted whale after Beale’s description of a blind whale captured by the British whaleship *Sarah and Elizabeth*, on which Beale as ship’s surgeon had conducted many of the original observations that inform *Natural History*. According to Beale, the whale’s eyes “were completely disorganized, the orbits being occupied by fungous masses, protruding considerably” (marked by Melville at 36.10-12). That passage supplied inspiration for a simile on the blighted whale’s condition, with Melville drawing particularly upon Beale’s imagery of fungal growths: “As strange misgrown masses gather in the knotholes of the noblest oaks when prostrate, so from the points which the whale’s eyes had once occupied, now protruded blind bulbs, horribly pitiable to see” (357). On the page he annotated, Melville also circled, checked, and underlined Beale’s report that in the fight with the whale a “boat drew up over his flukes” (182.13-14). From this vantage point, Beale goes on, “the lance was darted” (182.16). In Melville’s indebted account of the whale’s death, the *Pequod*’s boats “perilously drew over his swaying flukes, and the lances were darted into him” (357). Finally, Melville describes the whale in its “flurry,” including a perfected version of his annotation on the whale’s dying spout:

At the instant of the dart an ulcerous jet shot from this cruel wound, and goaded by it into more than sufferable anguish, the whale now spouting thick blood, with swift fury blindly darted at the craft, bespattering them and their glorying crews all over with showers of gore, capsizing Flask’s boat and marring the bows. It was his death stroke. For, by this time, so spent was he by loss of blood, that he helplessly rolled away from the wreck he had made; lay panting on his side, impotently flapped with his stumped fin, then over and over slowly revolved like a waning world; turned up the white secrets of his belly; lay like a log, and died. It was most piteous, that last expiring spout. As when by unseen hands the water is gradually drawn off from some mighty fountain, and with half-stifled melancholy gurglings the spray-column lowers and lowers to the ground—so the last long dying spout of the whale. (358)

40 Vincent’s claims for *Natural History* as a source (268) were rejected by Barbour in “The Writing of *Moby-Dick*” (PhD dissertation, University of California, Los Angeles, 1970), 95-96, and by Howard in *The Unfolding of Moby-Dick* (Glassboro, N.J.: The Melville Society, 1987), 28.

Vincent comments on “the felicity of the various images” represented here: “the prostrate oak, the waning world, and the concluding Homeric simile of the dying fountain” (269). Along with details from Beale’s description of the “flurry,” the scene combines information Melville encountered in different sections of *Natural History*, including the author’s accounts of blood and glory in the act of slaughter, the sperm whale’s behavior of rolling its body when fastened to, and the tendency of the whale to turn on its side when killed (see entries for chapter 81 of *Moby-Dick* in appendixes 1 and 2).

As the polished outcome of his rough annotation on the “dying spout of the whale,” the published passage reveals Melville’s development of the fountain imagery from draft to completion. In adding the poignant “half-stifled melancholy gurglings” to his description of the declining spray-column and prefixing the alliterative “last long” to “dying spout of the whale,” Melville prolonged the falling action in a manner comparable to his poetic depiction of the whale’s tail in chapter 86. Just as that instance of agonized descent connotes the cosmic conflict of an ennobled inferior with a superior agent, the now “mighty” fountain brought down by “unseen hands” conveys a Gnostic conception of cosmic injustice that informs Ahab’s ill-fated conflict with a Divinity he judges to be evil.⁴¹ The narrative’s earliest oblique references to the captain as a “mighty pageant creature” and to the white whale as an embodiment of “intangible malignity” correspond with promethean implications in the fountain simile (73, 184), and these connections are further confirmed by verbal and descriptive parallels in the rhetoric Melville used to usher both Ahab and the blighted whale into the story. Melville writes in chapter 81 of the whale’s mutilated condition, “Whether he had lost that fin in battle, or had been born without it, it were hard to say” (353). So too in “Ahab” (chapter 28), where the captain is first introduced, Melville writes of the mark of original sin that mars Ahab’s visage, “Whether that mark was born with him, or whether it was the scar left by some desperate wound, no one could certainly say” (123). Suggesting to Ishmael the impression of “upper lightning” delivered upon “the straight, lofty trunk of a great tree” (123), Ahab’s mark likewise suggests the agency of unseen punitive forces and perpendicular imagery that corresponds with the falling action of the fountain simile.

The numerous examples of perpendicular symbolic structure in *Moby-Dick* convey what Harrison Hayford identifies as the book’s motif of “spatial contrast,”⁴² and what Merton M. Sealts has described as the “‘vertical’ axis of *Moby-Dick*” (“Melville

41 For Gnostic implications of similar imagery in *Moby-Dick*, see Steven Olsen-Smith, “The Hymn in *Moby-Dick*: Melville’s Adaptation of ‘Psalm 18,’” *Leviathan: A Journal of Melville Studies* 5, no. 1 (March 2003): 29-47, particularly 36-40. For a detailed investigation of Gnosticism in *Moby-Dick*, see William B. Dillingham, “Ahab’s Heresy,” chapter 4 of *Melville’s Later Novels* (Athens and London: University of Georgia Press, 1986), 91-124.

42 Harrison Hayford, *Melville’s Prisoners* (Evanston: Northwestern University Press, 2003), 9.

and the Platonic Tradition” 312). In their analyses of correspondent imagery elsewhere in the book, Hayford and Sealts use these expressions to address figurative and epistemological issues, respectively. But both terms aptly describe the conceptual spectrum of elevation and descent along which subjective idealism, metaphysical struggle, and mortal ambition are symbolized in passages derived from or inspired by material Melville marked and annotated in his copy of Beale’s *Natural History of the Sperm Whale*. The imagery recurs much as related motifs identified by Hayford in the book’s opening chapter, “Loomings,” reappear in later episodes of the book.⁴³ The extent to which Melville’s coinciding depictions of whaleman and whale in chapters 28 and 81 may constitute his deliberate connection between the embattled condition of Ahab and that of the blighted whale is a question for complex analysis. What the annotation makes immediately clear is the intrinsic artistic purposefulness of Melville’s composition from sources and its role in thematic development. With ties to broader narrative implications about the barbarity of creation, the mystery of iniquity, and grounds for metaphysical grievance, Melville’s simile on the “dying spout of the whale” demonstrates what Hayford describes as the “dense imaginative coherence of *Moby-Dick*” (“Loomings,” 119), an achievement whereby the work’s wildly disparate narrative elements are held together in part by consistent figures and themes.

Motifs identified by Hayford—confrontation, violence, punishment—infuse the conceptual world of *Moby-Dick*, and Melville’s development of such themes can be discerned in still other annotations recovered from Melville’s erased marginalia in Beale’s *Natural History*. In his chapter on “Herding,” Beale observes that with “each herd or school of females are always from one to three large ‘bulls’—the lords of the herd, or as they are called, the ‘schoolmasters’” (marked at 51.9-12), a passage that seems to have prompted Melville’s conception for “Schools and Schoolmasters” (chapter 88 of *Moby-Dick*). To that passage in *Natural History* Melville supplied an annotation alluding to “Vidocq in his ‘Memoirs’”—a remark apparently intended to note the irony of applying instructor-student metaphors to a herding instinct motivated by raw sexual energy. Melville’s marginal allusion to Francois Eugene Vidocq’s *Memoirs of Vidocq* formed the basis of a passage identifying the dominant bull in chapter 88 with “that famous Frenchman” and the “occult lessons he inculcated into some of his pupils” (393). A fugitive from justice in the early chapters of his *Memoirs*, Vidocq disguises himself as a wandering friar and holds school in an isolated peasant village until its inhabitants

43 Hayford, “Loomings’: Yarns and Figures in the Fabric,” in *Artful Thunder: Versions of the Romantic Tradition in American Literature in Honor of Howard P. Vincent*, ed. Robert J. DeMott and Sanford E. Marovitz (Kent, Ohio: Kent State University Press, 1975), 119-137; hereafter cited parenthetically.

learn that he is seducing the young female students in his charge, an offense for which he is beaten by a gang of men and driven from the community.⁴⁴

The partially recovered annotation seems to have centered around Vidocq's transgression rather than his punishment, a choice reflected in Melville's use of it to describe the ascendant bull, or the "harem's lord," rather than young upstart male sperm whales in "Schools and Schoolmasters" (392). A fuller instance of libidinal transgression followed by swift, unrelenting retribution appears in Melville's response to Beale's accounts in "Herding" of the developing behavior of the young males. Of the adolescent bulls Beale comments, "When about three-fourths grown, or sometimes only half, they separate from each other, and go singly in search of food" (marked at 54.7-9). In the bottom margin Melville annotated the passage with a classical example of violence motivated by sex:

until they attain their [—?—] [—?—] like old
Ixion's [—?—] & his sins & punishment.

Here the Greek mythological figure of King Ixion—a mortal guest of Zeus at Mount Olympus until chained by the god to a wheel of fire in Hades for his attempt to seduce Hera, queen of heaven—represents the reproductive instincts of the young bull sperm whales and their eventual conflicts with the older males.⁴⁵ When the whales attain their sexual maturity, Melville implies, they invade the pods and attempt to wrest the females away from the established bulls who, like Zeus, retaliate in fury. Melville may have considered using this allusion, too, within chapter 88. But when finally writing about the dispersal of young males he instead appropriated the passage he had annotated. Whereas Beale observes that when "three-fourths grown" the males "separate from each other, and go singly in search of food," for Ishmael's discussion of "riotous" young bulls Melville alters the motive for dispersal by writing: "They soon relinquish this turbulence though, and when about three fourths grown, break up, and separately go about in quest of settlements, that is, harems" (393). Instead of alluding to Zeus and Ixion, Melville developed the Turkish imagery evoked by "harems" and settled upon "the Bashaw" as title for a dominant bull guarding females. The young intruder-bull becomes "Lothario," the seducer from Nicholas Rowe's *The Fair Penitent* (392). But even though he omits the classical imagery, Melville's alternative conception persists

44 For a likely edition of this source (which is not included in Mary K. Bercau's *Melville's Sources* [Evanston: Northwestern University Press, 1987]), see *Memoirs of Vidocq Principal Agent of the French Police, until 1827; and now Proprietor of the Paper Manufactory at St. Mandé, Written by Himself, Translated from the French, In Four Volumes* (London: Whittaker, Treacher, and Arnot, 1829–30). See in particular vol. 1, 183–184.

45 See Edward Tripp, *Crowell's Handbook of Classical Mythology* (New York: Thomas Y. Crowell, 1970), 272, 327.

into *Moby-Dick*, for which he abandons his annotation but develops its wry implication that young bachelor groups separate not for food but for sexual dominion.

With narrative effects ranging from the satiric to the sublime, the fate of Vidocq, the rise and fall of Ixion, Satan's damnation, and the imagery of the "mighty fountain" brought down by "unseen hands," all convey the doomed character of mortal desire and in various degrees exemplify the "vertical axis" of *Moby-Dick*. Though not ultimately incorporated for the purpose that prompted it, Melville's allusion to Ixion in his reading of *Natural History* remains intriguing for its relationship to the motif of cosmic punishment in the "Epilogue" of *Moby-Dick*. Following the book's final episode of vertical descent, where the vortex created by the sunken *Pequod* has carried down every trace of ship and crew, Ishmael as lone survivor compares himself to "another Ixion" revolving at its axis (573). As we have seen, Melville had prepared the way for this episode by appropriating false reports of sperm whale ferocity from *Natural History* to establish a psychological credence for the white whale's "unexampled, intelligent malignity" and "infernal aforethought of ferocity" in the title chapter of his narrative (183). While dramatizing the white whale's famed cunning in the final chase scenes that precede the book's catastrophic conclusion, Melville would also portray whale actions that we have already seen him draw from *Natural History* for expository purposes elsewhere in *Moby-Dick*, as well as additional forms of sperm whale behavior and phenomena marked in Beale but held in reserve by Melville for the climactic chapters of his masterwork.

Moby Dick reveals himself to the crew of the *Pequod* for the first time in "The Chase—First Day" (chapter 133), where in preparation for the narrative's pending act of divine retribution Melville invokes the "great majesty Supreme" by his Roman title of "Jove," while describing the white whale's deceptively serene spoutings (548). After taking its allowance of air, the white whale descends perpendicularly in the manner described by Beale as "peaking the flukes" (marked by Melville at 44.8-11) and by Melville himself as an emblem of agonized grandeur in "The Tail." For dramatic rendering in chapter 133, Melville portrays the act as a gesture of hostile caution conveying the majesty of physical nature and the mystery of divinity:

For an instant his whole marbleized body formed a high arch, like Virginia's Natural Bridge, and warningly waving his bannered flukes in the air, the grand god revealed himself, sounded, and went out of sight. (549)

Immediately following the whale's descent, Ahab's succinct assertion that it will resurface in "an hour" (549) coincides with Beale's remarks on durations of sperm whale soundings in his chapter on "Breathing" (marked at 44.14). But the whale's immediate reappearance beneath Ahab's boat with "open mouth and scrolled jaw" (from Beale's description of jaw malformations marked at 36.28-30) dramatizes the

whale's "malicious intelligence" and initiates its first violent confrontation with the *Pequod's* crew (549).

For the ensuing fight, Melville draws upon Beale's description of a "perpendicular posture" sometimes assumed by sperm whales for the purpose of viewing their surroundings above the surface of the ocean (marked at 47.6-8). Whereas Beale describes the perpendicular pose of whales "seen from a distance, resembling large black rocks in the midst of the ocean," Melville's corresponding description portrays the white whale in a towering combative posture immediately above human foes whose whaleboat he has demolished:

Ripplingly withdrawing from his prey, Moby Dick now lay at a little distance, vertically thrusting his oblong white head up and down in the billows; and at the same time slowly revolving his whole spindled body; so that when his vast wrinkled forehead rose—some twenty or more feet out of the water—the now rising swells, with all their confluent waves, dazzlingly broke against it; vindictively tossing their shivered spray into the air. So, in a gale, the but half baffled Channel billows only recoil from the base of the Eddystone, triumphantly to overleap its summit with their scud. (550-551)

In comparing the swells to billows breaking against the Eddystone lighthouse, a popular nineteenth-century emblem of man's technological superiority over natural forces,⁴⁶ Melville here presents the vertically ascendant scud, or spray, as a testament to nature's ultimate supremacy, symbolizing the archetypal implications of the conflict at hand and foreshadowing its outcome in *Moby-Dick*.

In "The Chase—Second Day" (chapter 134), during another battle with the *Pequod's* boats the white whale performs the action described by Beale as "sweeping" (marked at 46.17-19) and by Melville as an emblem of tranquility and peril in "The Tail." In this episode of the conflict, the white whale is said to "lay for a moment slowly feeling with his flukes from side to side; and whenever a stray oar, bit of plank, the least chip or crumb of the boats touched his skin, his tail swiftly drew back, and came sideways smiting the sea" (559). Once again, what Beale describes in straightforward, expository terms, Melville dramatizes in a scene of violent conflict. It is here, moreover, that Melville finally portrays the "sublime *breach*," as anticipated in his earlier poetic treatment of the whale's descending flukes. In "Actions of the Sperm Whale" (chapter 5 of *Natural History*), Beale discusses the sperm whale's act of accelerating upward

46 For an example, see Michael Rough, *The Eddystone Light-House, A Poem* (London: Bailey, 1823), digitized May 17, 2007, by Google Books <<http://books.google.com/books?id=BDolAAAAQAAJ>> (accessed February 20, 2011). See also Wallace's argument for the influence of J. M. W. Turner on the image in chapter 133 (*Melville & Turner*, 314-316).

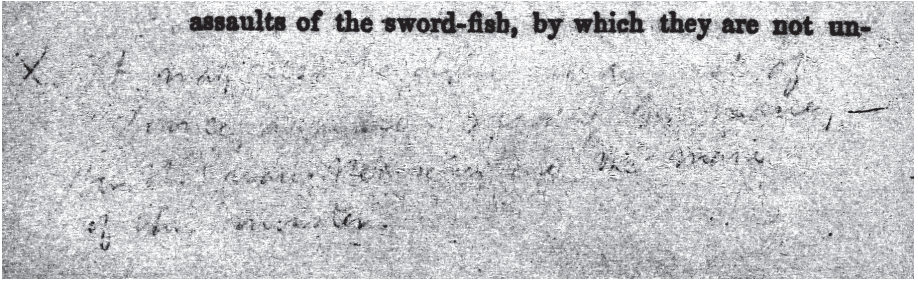


Figure 10. Melville’s erased pencil annotation, on the subject of breaching, on page 48: “It may also be [it is] [?the whale’s] act of / defiance, as a h[orse sha]king his mane,— / for the waves then seem like the mane / of the monster.”

from the depths and leaping out of the water to fall back upon the ocean surface in an eruption of foam and spray. Describing the sperm whale’s motives as a mystery, Beale hypothesizes that it “often resorts to this action of breaching for the purpose of ridding itself of various animals which infest its skin, such as large ‘sucking fish,’ and other animals which resemble small crabs” (marked by Melville at 48.19-23). However plausible, the uninspired hypothesis offered little for Melville’s narrative agenda, and in the margin he recorded a different theory for the whale’s behavior (see figure 10):

It may also be [it is] [?the whale’s] act of
defiance, as a h[orse sha]king his mane,—
for the waves then seem like the mane
of the monster.

Melville here uses another figurative comparison as his basis for attributing defiance to the behavior of breaching, specifically the resemblance of trailing water to the flying mane of an unbroken horse. The act of inference by poetic association may derive in part from Beale’s claim to have seen whales “‘breaching’ . . . after having been unsuccessfully chased by the boats” (unmarked at 50.29-30), or Melville may have witnessed breaching by escaped whales himself aboard the whaleships *Acushnet* and *Charles and Henry* during his period as a whaler. In either case, the sentiment corresponds with his portrait of the whale in “Does the Whale’s Magnitude Diminish?—Will He Perish?” (chapter 105), where related imagery appears in Ishmael’s prediction that the sperm whale species would survive the nineteenth-century onslaught of industrial whaling, “and rearing upon the top-most crest of the equatorial flood, spout his frothed defiance to the skies” (462).

Indeed, Melville’s reference to the whale’s “mane” in the margin of *Natural History* appears in chapter 134 as a culmination of horse imagery employed by Melville

throughout *Moby-Dick*, including the assertion of transcendent yearning over empirical knowledge that concludes the earlier three-chapter sequence on the sperm whale's indefiniteness (chapters 55, 56, and 57). It appears in the text where, before luring the *Pequod* to its catastrophic fate, the white whale reveals himself to the incensed crew for the next to last time:

Moby Dick bodily burst into view! For not by any calm and indolent spoutings; not by the peaceable gush of that mystic fountain in his head, did the White Whale now reveal his vicinity; but by the far more wondrous phenomenon of breaching. Rising with his utmost velocity from the furthest depths, the Sperm Whale thus booms his entire bulk into the pure element of air, and piling up a mountain of dazzling foam, shows his place to the distance of seven miles and more. In those moments, the torn, enraged waves he shakes off, seem his mane; in some cases, this breaching is his act of defiance. (557-558)

Melville's appropriation of source information on breaching displays his habitual practice of augmentation, adding an extra mile "and more" to Beale's observation (immediately preceding the sentence Melville annotated) that "the breach of a whale may be seen from the mast-head on a clear day at the distance of six miles" (48.17-19). Further developing both the spectacle of showering waves and the "defiance" associated with it, Melville contrasts the blue of sea and sky with the spray, that "glittered and glared like a glacier" in the sun, "as in his immeasurable bravadoes the White Whale tossed himself salmon-like to Heaven" (558).

In contrasting the deceptively "peaceable" spoutings of the white whale's first appearance with its now explosive breach, Melville intensifies within the final fight scenes his running dichotomy of tranquility and peril. That motif occurs once more with the action of breaching in the book's final chapter, "The Chase—Third Day," where the "profoundest silence" among the boat crews is abruptly destroyed as in their midst, "bedraggled with trailing ropes, and harpoons, and lances, a vast form shot lengthwise, but obliquely from the sea":

Shrouded in a thin drooping veil of mist, it hovered for a moment in the rainbowed air; and then fell swamping back into the deep. Crushed thirty feet upwards, the waters flashed for an instant like heaps of fountains, then brokenly sank in a shower of flakes, leaving the circling surface creamed like new milk round the marble trunk of the whale. (567)

Here Melville identifies neither action nor motive by name, but instead dramatizes the defiant breach to evoke sublimity and terror in the whale's emergence for the book's closing act of retribution. Like his extended similes and comparable poetic responses

to other passages he marked and annotated, the documented origins of this material in his marginalia provide a glimpse of how intimately this signature quality of Melville's artistry was at times facilitated by his imaginative responses to source information—a compositional practice that surely generated numerous additional poetic flights in *Moby-Dick*, but for which no marginalia or source connections are known.

Melville's depiction of the "circling surface" created by the white whale's breach may be derived from one of the few unerased annotations in Melville's marginalia in *Natural History of the Sperm Whale*. From periodic occurrence in the chase scenes to emblematic climax in its last chapter and "Epilogue," his depictions of the maelstrom or vortex in *Moby-Dick* display connections to Beale's heavily-marked chapter on "Breathing," which describes a disturbance of the water's surface that results when a sperm whale accelerates its descent beneath the surface to flee from hunters:

He sinks without having assumed the perpendicular position before described, on the contrary, he sinks suddenly in the horizontal position, and with remarkable rapidity, leaving a sort of vortex, or whirlpool, in the place where his huge body lately floated,—this curious movement is effected, as has been before stated, by some powerful upward strokes of the swimming paws or flukes. (marked at 45.17-24)

Early in the cetological section of *Moby-Dick*, for the Pequod's "First Lowering" (chapter 48), Ishmael observes forebodingly that nothing can compare to the sensations of the man "who for the first time finds himself pulling into the charmed, churned circle of the hunted sperm whale" (224). In "Stubb and Flask Kill a Right Whale" (chapter 73), a harpooned whale descends by "suddenly going down in a maelstrom" (324); in "The Pequod Meets the Virgin" (chapter 81) the blighted whale sounds "tumultuously" (355); and for the scene of Ahab's dismemberment (chapter 41) Melville wrote of "oars and men both whirling in the eddies" (184). After destroying the whale boats in "The Chase—Second Day," the white whale descends "in a boiling maelstrom, in which, for a space, the odorous cedar chips of the wrecks danced round and round, like the grated nutmeg in a swiftly stirred bowl of punch" (559).

According to David Charles Leonard, the image of the vortex in *Moby-Dick* connotes the "hellish circular flight" of a mechanistic universe devoid of moral progress and spiritual affirmation, implications Leonard finds in the "Descartian vortices" of "The Mast-Head" (chapter 35), in the circling herd of whales in "The Grand Armada" (chapter 87), and in the ultimate vortex image of "The Chase—Third Day" (chapter 135).⁴⁷ As though "churned" or "stirred" by an unseen and perhaps malignant creator, its appearance in the chase episodes, too, allowed Melville to sustain the motif within the

47 David Charles Leonard, "The Cartesian Vortex in *Moby-Dick*," *American Literature* 51, no. 1 (March 1979): 107.

not far distant, and finish his full number of respirations ; and in this case, generally also, he sinks without having assumed the perpendicular position before described, on the contrary, he sinks suddenly in the horizontal position, and with remarkable rapidity, leaving a sort of vortex, or whirlpool, in the place where his huge body lately floated,—this curious movement is effected, as has been before stated, by some powerful upward strokes of the swimming paws and flukes.

When urging his rapid course through the ocean, in that mode of swimming which is called “going head out,” the spout is thrown up every time the head is raised above the surface, and under these circumstances of violent muscular exertion, as would be expected, the respiration is altogether much more hurried than usual.

X white & green vortex in the blue—as
when a ship sinks.

Figure 11. Bottom of page 45, with Melville's pencil annotation: “White and green vortex in the blue—as / when a ship sinks.”

story's scenes of predation and carnage. Whether or not he had such an agenda in mind when he marked Beale's passage on the vortex, Melville took considerable interest in the affect on the water by the whale's upward strokes, for he separately marked Beale's opening clause and wrote at the bottom of the page: “White and green vortex in the blue—as when a ship sinks” (see figure 11). This uneraser annotation would seem to echo Beale's reference in “Chase and Capture of the Sperm Whale” to “a white-and-green-looking vortex in the disturbed blue ocean” left by the descent of a fleeing whale (unmarked at 180.30 to 181.1). Melville's marginal reference to the phenomenon is of course especially significant for its comparison to the vortex created by a sinking ship.

Melville's source for the sinking of the *Pequod* in chapter 135 has long been known as the actual wreck of the *Essex*, stove and sunk by a whale in 1820, according to the

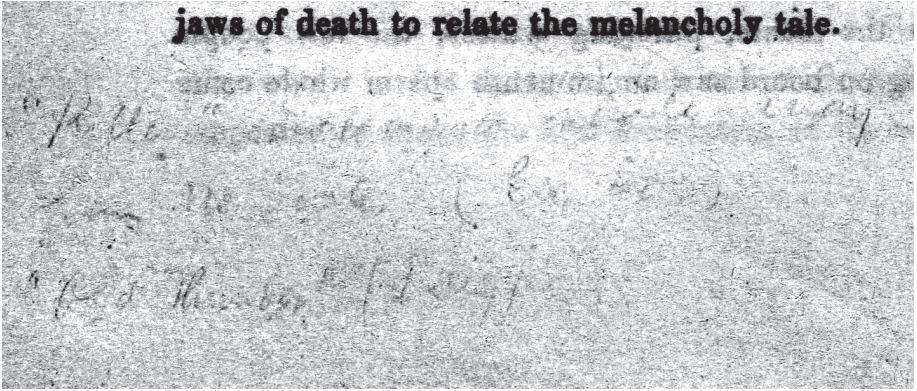


Figure 12. Melville's erased pencil annotation on page 184: "Killers' dragging the whale away / from the vortex (Ex [—?—]) / 'Old Thunder' / [?Peleg] /" [the final two forward slashes are Melville's].

account of its first mate, Owen Chase, in *Narrative of the Most Extraordinary and Distressing Shipwreck of the Whaleship Essex* (1821). As observed previously in this essay, Melville's copy of Chase's book survives, with an acquisition inscription of April 1851. Within a series of bound-in manuscript notes, Melville wrote of having read a borrowed copy of the *Narrative* "upon the landless sea, & close to the very latitude of the shipwreck," during his period aboard the whaleship *Acushnet* in the early 1840s.⁴⁸ Already familiar with Chase's story when he began his own narrative early in 1850, Melville encountered Beale's summary of the tragedy of the *Essex* in *The Natural History of the Sperm Whale*, where at the end of his chapter on chase and capture Beale describes the wreck of the *Essex* and the sufferings of the surviving crew members in open whaleboats. Beneath Beale's account on page 184, Melville recorded the following note (see figure 12):

"Killers" dragging the whale away
 from the vortex (Ex [—?—])
 "Old Thunder" / [?Peleg] /

Unlike most of the other erased annotations in the top and bottom margins of Melville's copy, this note is not keyed by corresponding x's to any particular passage of the text area on page 184. Coming as it does in the blank space at the chapter's end, the note would appear to have been inspired by Beale's account of the sinking as a

48 See "Melville's Memoranda in Chase's *Narrative of the Essex*" in *Moby-Dick*, 983.

whole, including the plight at sea of the survivors of the *Essex* disaster. Moreover, rather than constituting a descriptive reference or allusion of the sort he would go on to use within episodes of *Moby-Dick*, the above annotation would seem to project a narrative episode in its own right—one Melville presumably conceptualized in the act of reading Beale's account of the *Essex* disaster, and one he considered adding to his narrative in progress. The notation holds considerable significance for scholarly theories about the composition of Melville's masterwork.

The enigmatic genesis of *Moby-Dick* was first addressed by Howard, who argued that Melville extensively reconceptualized his narrative in the process of composition. The position was taken up by Vincent (45-49), further elaborated by Howard, and popularized by George R. Stewart, who in his article "The Two *Moby-Dicks*" coined the title "Ur-*Moby-Dick*" to signify what he believed had been a radically different early narrative. Significant contributions followed from Howard's student James Barbour.⁴⁹ These scholars differed in their accounts of what an early version of *Moby-Dick* might have consisted of in terms of its plot and content. But by 1975 Barbour's consideration and synthesis of existing theories included two prevalent assumptions: that an earlier captain figure preceded Ahab in the course of composition, and that Melville's early conception for the narrative conclusion involved multiple survivors, as opposed to a lone surviving narrator. Up to that point, scholars subscribing to the hypothesis of two (or more) *Moby-Dicks* had assumed that the book's opening shore narrative (chapters 1 to 21) stands much as it did in early stages of the work, and that Melville's reworking of an early version of his story dealt primarily with the longer sea narrative. But this assumption was upset in a brilliant analysis of the book's textual anomalies by Hayford, who argued that the shore narrative of *Moby-Dick* had undergone multiple stages of revision, and that the now-vestigial Captain Peleg of chapters 16, 18, and 22 had preceded Ahab as captain of the *Pequod*.⁵⁰ As Howard would later observe, Hayford's discoveries make it possible "to explore the ways in which textual evidence and such scholarly evidence as sources and influences can contradict, modify, or confirm each other." Robert Sattelmeyer, another of Howard's students, has recently drawn from

49 Leon Howard, "Melville's Struggle with the Angel," *Modern Language Quarterly* 1 (1940): 195-206, and *Herman Melville: A Biography*, 162-178; George R. Stewart, "The Two *Moby-Dicks*," *American Literature* 25 (1954): 417-148; James Barbour, "The Writing of *Moby-Dick*"; "Composition of *Moby-Dick*"; and "All my Books are Botches': Melville's Struggle with *The Whale*," in *Writing the American Classics*, ed. James Barbour and Tom Quirk (Chapel Hill: University of North Carolina Press, 1990), 25-52.

50 Harrison Hayford, "Unnecessary Duplicates: A Key to the Writing of *Moby-Dick*," in *New Perspectives on Melville*, ed. Faith Pullin (Edinburgh: Edinburgh University Press, 1978), 128-161; hereafter cited parenthetically. Hayford's research on the composition of *Moby-Dick* had begun in earnest with his discovery of Melville's letter to Dana (*Correspondence*, 162); see "Two New Letters of Herman Melville," *ELH: A Journal of English Literary History* 2, no. 1 (March 1944): 76-83.

Hayford's insights to argue anew that Melville's narrative underwent a profound transformation in manuscript.⁵¹

Melville's note on page 184 of *Natural History* strongly suggests that his early conceptions for *Moby-Dick* included key elements of early versions postulated by the above-named scholars. In line 1 of the erased notation, the term "killers" presumably signifies the officer's position among whaleboat crews denominated "headsman or whale-killer" in chapter 62 of *Moby-Dick* (287). The "vortex" in line 2 would seem to be the conceptual outcome of the developing symbolic device Melville marked and annotated at 45.17-24 of *Natural History*, and Melville's abbreviated parenthetical reference to the *Essex* (alongside an additional undeciphered word) suggests the image of the vortex is here meant to signify the disturbance created when a ship sinks. Considered together, lines 1 and 2 of the erased notation indicate that at some early point in the composition of *Moby-Dick* Melville considered a narrative plot in which the crew of the *Pequod* (or some ship of an earlier name) would succeed in capturing an especially dangerous whale that manages to sink their ship before it is slain—leaving crew members to endure the elements in open whale boats. Their act of towing a fastened whale away from a vortex indicates both their survival and the sinking of their ship.

If accurate, my conjectural reading of "Peleg" in line 3 supports Hayford's argument that this character originally occupied a much larger place in Melville's narrative plan than his finalized role as past chief-mate and current part-owner of the *Pequod* (Hayford, "Unnecessary Duplicates," 147). In contrast to Peleg's minor role in the published narrative, Melville's rough sketch in the margin of *Natural History* seems to link him to the catastrophic event that would ultimately conclude *Moby-Dick*. Hayford has observed that the expletive "blood and thunder!" uttered by Peleg in "Merry Christmas" (chapter 22) indicates the epithet "Old Thunder" was applied to him before it (along with the role of captain) was transferred to the newly-conceived Ahab (*Moby-Dick*, 103), and Sattelmeyer has offered additional hypotheses for this character's prominence in Melville's early conception of the story (208-210).⁵² As both scholars point out, Peleg himself is responsible for having adorned the *Pequod* with the "bones of her enemies" (*Moby-Dick*, 70), and it is Peleg who Ishmael first encounters in

51 Leon Howard, *The Unfolding of Moby-Dick*, 49. Robert Sattelmeyer, "Shanties of Chapters and Essays: Rewriting *Moby-Dick*," in *Hawthorne and Melville: Writing a Relationship*, ed. Jana Argersinger and Leland S. Person (Athens and London: The University of Georgia Press, 2008), 197-226; hereafter cited parenthetically.

52 As Alice S. A. Mulvihill reports, the epithet appears in Beale as the name of a native Hawaiian chief on page 261, where it is unmarked. See Mulvihill's "The Significance of the 'Old Thunder' Epithet in *Moby-Dick*," *American Notes & Queries: A Quarterly Journal of Short Articles, Notes, and Reviews* 7, no. 1 (Winter 1994): 22-25.

a makeshift tent likewise consisting of whalebone when he boards the *Pequod* to sign on. The “whalebone marquee,” as Ishmael calls it in “The Ship” (chapter 16), appears fundamentally associated with its tenant:

Half concealed in this queer tenement, I at length found one who by his aspect seemed to have authority; and who, it being noon, and the ship’s work suspended, was now enjoying respite from the burden of command. (70)

As Ishmael learns, Captain Peleg is no longer an officer of the *Pequod* but occupies the tent as part-owner of the ship while attending to its affairs in port. But Peleg’s purported tenure as chief-mate of the *Pequod* for an unspecified past period, “before he commanded a vessel of his own” (69), appears to derive from revisions made by Melville to accommodate the addition of Ahab to his narrative as past and present captain of the *Pequod*. Whereas Melville’s decision involved relegating Peleg’s captaincy to a different, unnamed ship, we are told in “Merry Christmas” that the whalebone marquee so explicitly associated with him has always been aboard the *Pequod*. As Ishmael explains when the ship finally leaves harbor, “on board the *Pequod*, for thirty years, the order to strike the tent was well known to be the next thing to heaving up the anchor” (103). Not addressed in previous scholarly arguments about Peleg’s likely role as original captain of the *Pequod*, this textual evidence nonetheless supports the hypothesis. Combined with textual anomalies in “Merry Christmas” identified by Hayford, the continuous presence aboard ship of Peleg’s whalebone marquee suggests this character originally held the thirty-year tenure as captain of the *Pequod*, and that he occupied this role when Melville first introduced him in association with the whalebone marquee. Peleg’s recollected period as former chief-mate aboard the ship, and as captain aboard a different vessel, are part of Melville’s resourceful but imperfect measures to supplant Captain Peleg without eliminating him from the narrative entirely.

Melville’s erased notation on page 184 of Beale projects a narrative episode involving the capture of a whale that was perhaps an object of prolonged pursuit in the author’s early conception of the narrative action. The scenario seems unlikely enough alongside hallmark qualities of the story Melville completed: its fatalistic handling of Ahab’s purpose, its conception of the white whale as a projected embodiment of the world’s abiding evil, and the orchestrated finality of its catastrophic conclusion. Indeed, the death of the whale seems equally out of keeping with thematic motifs we have seen Melville develop from material elsewhere in *Natural History*: the vertical axis of upward striving followed by tragic descent, abrupt transitions from tranquility to peril, the indefiniteness and deification of the whale in *Moby-Dick*. But we can make some sense of the projected episode by following Howard’s suggestion to consider Melville’s abandoned plan in light of other sources available to him at the time of composition.

As revealed by markings in Melville's surviving copy of Chase's *Narrative*, Melville studied the author's account of the staving of the *Essex* but also paid close attention to the aftermath of the disaster. Melville marked passages on the crew's efforts to salvage supplies from their sinking vessel as well as Chase's accounts of their subsequent sufferings at sea.⁵³ The marginalia in Chase lend support to Sattelmeyer's belief that Melville at some point considered extending the story of his whaling crew beyond the sinking of their ship (222-223), and the possibility is further indicated by marginalia in the *South-Sea Whaling Voyage* appended to Beale's *Natural History of the Sperm Whale*. Melville marked Beale's account of efforts by a lost whaleboat crew to beach their vessel amidst tumultuous surf (285.12-20), and he marked a passage dealing with the stranded sailors' sense of loneliness and isolation before a gathering storm (288.12-17; see appendix 3). Finally, scholars have long recognized that Melville also knew Jeremiah N. Reynolds's 1839 tale of "Mocha Dick: Or the White Whale of the Pacific," a magazine story on which he obviously based the title and situation of his own whaling narrative.⁵⁴ In the fictional "Mocha Dick," the crew of a whaling vessel encounter and fight a notorious white whale which, after considerable tribulation and mishap, they capture and slay.

Does Melville's rough marginal sketch of a sunken ship and slain whale point to the "Ur-*Moby-Dick*"? Scholars contesting the theory of an earlier narrative have often observed that it lacks strong external evidence,⁵⁵ and to a modest extent the notation in question should help to offset that deficiency. Yet it must be observed that this new evidence points to Melville's conception for a narrative episode, rather than the episode itself. In contrast to Sattelmeyer, who makes frequent references to "the original story" to signify an earlier version of the narrative (199), Hayford himself avoided using such language in his studies and sought to distinguish instead among genetic "stages" of composition during the creation of a single work (137-138). More so than the assumption of multiple narratives, Hayford's attention to the fluid and overlapping phases of literary creation is best suited for Sattelmeyer's own thesis that focusing on the evolution of *Moby-Dick* "foregrounds the romantic dynamism not only of its growth but also of its author's aesthetic theory" (199). The theory of romantic dynamism, as derived from Samuel Taylor Coleridge's notions of organic form and development, is indeed applicable to Melville's own conception of creative processes. Echoing Coleridge's

53 See pages 30-31 and 59, among other marked pages, in Melville's copy of Chase's *Narrative*, cited in note 12.

54 J. N. Reynolds, "Mocha Dick: Or the White Whale of the Pacific: A Leaf from a Manuscript Journal," *The Knickerbocker* 12 (May 1839): 377-392.

55 See John Bryant, "Introduction," in *A Companion to Melville Studies*, ed. John Bryant (New York: Greenwood, 1986), xxii; and Robert Milder, "The Composition of *Moby-Dick*: A Review and a Prospect," *ESQ: A Journal of the American Renaissance* 23 (4th Quarter 1977): 203-216, particularly 204-206.

pronouncements on the plant-like evolution of artistic expression,⁵⁶ Melville writes in chapter 63 of *Moby-Dick*: “Out of the trunk, the branches grow; out of them, the twigs. So, in productive subjects, grow the chapters” (289). As we might anticipate from Coleridge’s aesthetic precepts, however, exploring the genetic history of *Moby-Dick* in light of nineteenth-century romantic dynamism is less useful for identifying the work’s disparate narrative elements than for illuminating structural and rhetorical continuities by which its various elements are connected. A fine example consists of the remarkable parallels identified above between the character of Ahab and the blighted whale of chapter 81, the composition of which may well have preceded the emergence of Ahab in Melville’s conceptions, but which may nonetheless have coincided in some respects with attributes he had already embodied in the character of Peleg.⁵⁷

Aside from what it offers scholarship on Melville’s phases of composition, the “Killers” annotation recovered from page 184 underscores an important function of Beale’s *The Natural History of the Sperm Whale*, and of the relationship between Melville’s narrative and its other sources. As we have seen, Melville relied again and again on individual passages in *Natural History* to prompt his imagination and elaborate his thematic intentions—frequently in ways that illustrate his romantic sensibility, with the source passages sooner or later eclipsed by soaring original artistry. In the “Killers” annotation we sense Melville’s initial debts not only to Beale, but to Chase and Reynolds—sources he similarly surpassed in the course of composition and ultimately transcended with his own timeless story and its memorable conclusion. With no few instances of imaginative “flight,” and notwithstanding his figurative depictions of agonized descent, Melville accomplished the aesthetic struggle he described in his letter to Dana, reaching a level of artistry forever exemplified by *Moby-Dick*.

56 See M. H. Abrams, *The Mirror and the Lamp* (New York: W. W. Norton & Co., 1953), 168-177.

57 I explore this possibility in my monograph in progress on the composition of *Moby-Dick*, which expands in part upon Hayford’s position that “the book was extensively rethought and revised in the process of composition, but perhaps not radically altered nor surgically severed and joined as the theory of ‘The Two *Moby-Dicks*’ would suggest”; see Hayford and James Barbour, “The Composition of *Moby-Dick*,” *Melville Society Extracts* 43 (September 1980): 2.

Appendixes

The following three appendixes list in table format content in Herman Melville's copy of Thomas Beale's *The Natural History of the Sperm Whale* and the text of *Moby-Dick* (full citations at notes 3 and 17). Appendixes 1 and 2 list evidence of correspondence between *Natural History* (column A) and *Moby-Dick* (column C), with brief identifications of corresponding content. Fuller explanation of content is supplied in column B, which also notes the presence of annotations by Melville. Appendix 3 lists marked text and annotations in Melville's copy of *Natural History* that lack correspondence with the text of *Moby-Dick*. Entries in appendixes 1 and 2 are listed in the chapter-order of the text of *Moby-Dick*, and entries in appendix 3 are listed in the chapter order of *Natural History*. Marginalia are erased unless noted as unerased. The tables present many more instances of marginalia and correspondence than are discussed in the preceding essay, many of which have never been addressed by scholarship.

Citation of text refers to content, page, and line numbers, with individual citations separated by semicolons and supplied in the order by which the content appears in *Natural History*. For instance, in column A "South America, 146.11-28; Australia, 147.1-24; Polynesia, 147.25-30" refer to Melville's marking of information in *Natural History* related to the whale fishery on pages 146 (lines 11 to 28) and 147 (lines 1 to 24, and 25 to 30). In column C, "South America, 110.19-26; Australia, 110.27-34; Polynesia, 110.34-37" refer to the page and line numbers in *Moby-Dick* that contain the indebted content. The order of content in Beale is preserved in column C to facilitate reference. Line number sequences are based on the number of textual lines in the primary text area of printed pages, excluding page headings, pagination, and non-textual bars and separators, but including headings on the opening pages of chapters. In appendix 1, line number sequences in column A refer specifically to passages of text rather than to the beginning and endpoints of the markings Melville applied to them. When an unrecovered annotation is clearly tied to corresponding text, it is included with the textual listing in appendix 1. Otherwise, unrecovered annotations are documented in appendix 3. Spelling variations between identical terms used by Melville and Beale are observed in columns A and C, as are variations in case and punctuation. Beale frequently puts whaling terminology within double quotations, and Melville's marginalia show that he frequently marked such words for use in *Moby-Dick*. When these terms appear as content in the tables, they are represented with single quotation marks where applicable so that they may be easily distinguished from the double-quoted chapter titles listed in columns A and C.

It should be emphasized that appendixes 1 and 2 identify instances of *correspondence* rather than, in all cases, confirmed instances of *appropriation* (i.e., evidence of material demonstrably used by Melville). As noted in the preceding essay, Melville used multiple

whaling sources in the composition of *Moby-Dick* and also relied on his personal experience aboard whaleships. Particularly in instances of corresponding subject matter that Melville did not mark or annotate, evidence of outright appropriation is frequently inconclusive. Moreover, as indicated by duplicate subject and page entries throughout the appendixes, Beale repeats some varieties of information in *Natural History*, and it is frequently impossible to pinpoint the exact instance from which Melville drew. As users of the appendixes will find, cases to be made for direct appropriation and influence range from the compelling to the merely plausible, with substantial gray area existing between these two alternatives. All recovered marginalia in Melville's copy of Beale's *The Natural History of the Sperm Whale* are documented and displayed (where possible by enhanced digital imaging) at *Melville's Marginalia Online* (full citation at note 3).

Appendix 1:

Correspondence between marked text and annotations in Herman Melville's copy of Thomas Beale's *The Natural History of the Sperm Whale* and the text of *Moby-Dick*.

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>Ch. 8, "Anatomy and Physiology of the Sperm Whale": blood circulation, 104.15-17. Ch. 13, "Chase and Capture of the Sperm Whale": death throes, 165.15-21 (unerased).</p>	<p>Blood circulation of sperm whales. Death throes of a sperm whale.</p>	<p>"Extracts (Supplied by a Sub-Sub-Librarian)": blood circulation, xxiii.24-27; death throes, xxv.25-29.</p>
<p>Ch. 11, "Rise and Progress of the Sperm Whale Fishery": dignity of whaling, 146.11-13; South America, 146.11-28; Australia, 147.1-24; Polynesia, 147.25-30.</p>	<p>Importance of the southern whale fishery, with annotation on the dignity of whaling, in opening commerce with South America and in colonizing Australia and Polynesia.</p>	<p>Ch. 24, "The Advocate": South America, 110.19-26; Australia, 110.27-34; Polynesia, 110.34-37; dignity of whaling, 111.29-31.</p>
<p>Ch. 11, "Rise and Progress of the Sperm Whale Fishery": dignity of whaling, 146.11-13.</p>	<p>Annotation on the dignity of whaling.</p>	<p>Ch. 25, "Postscript": dignity of whaling, 113.3.</p>
<p>"Introductory Remarks": eminence, 2.27-28; confusion, 9.30-10.1 (partially erased); classification, 12.11-13. Ch. 5, "Other Actions of the Sperm Whale": 'thresher,' 49.5-50.15.</p>	<p>Sperm whale's eminence among whales. Confusion among naturalists. Classification of purported multiple sperm whale species. 'Thresher' shark, with annotation.</p>	<p>Ch. 32, "Cetology": eminence, 135.20-30; classification, 134.15-16; confusion, 134.17-18; Thrasher, 143.15-20.</p>

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 2, "Habits of the Sperm Whale": jaw malformation, 36.28-30; rolling, 165.15-17 (unerased). Ch. 13, "Chase and Capture of the Sperm Whale": blood, 166.17, 182.27.	Malformation of bull sperm whales' lower jaws. Sperm whale's manner of rolling when fastened to. Blood from the nostril of the sperm whale.	Ch. 36, "The Quarter-Deck": jaw malformation, 162.22, 163.27; blood and rolling, 163.18.
"Introductory Remarks": human flesh, 4.17-18; terror, 5.19-21 (partially marked), 5.21-24. Ch. 4, "Breathing": vortex, 45.17-24 (partially unerased).	Rumor of sperm whales' desire for human flesh. G. Cuvier's report of sea creatures' terror at the sight of sperm whales. The vortex or whirlpool created by a whale's rapid descent, with annotation comparing it to that of a sinking ship.	Ch. 41, "Moby Dick": human blood, 181.26-30; terror, 181.30-35; vortex ["whirling in the eddies"], 184.7-8.
"Introductory Remarks": Seychelle, 8.4; Volcano Bay, 8.17-18.	Reference to the Seychelle fishery. Reference to Volcano Bay on the coast of Japan.	Ch. 44, "The Chart": Seychelle and Volcano Bay, 200.17-21.
Ch. 13, "Chase and Capture of the Sperm Whale": fighting whales, 183.1-20.	Notorious fighting whales 'Timor Jack' and 'New Zealand Tom.'	Ch. 45, "The Affidavit": fighting whales, 205.1-5, 205.12-18.
Ch. 4, "Breathing": 'There goes flukes,' 44.11.	Whaler's shout, 'There goes flukes,' denoting a whale's descent.	Ch. 47, "The Mat-Maker": 'There go flukes,' 215.37.

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>Ch. 3, “Swimming”: ‘white water,’ 39.16. Ch. 4, “Breathing”: vortex, 45.17-24 (partially unerased). Ch. 13, “Chase and Capture of the Sperm Whale”: sounding, 161.12-13; ‘white water,’ 168.29-30.</p>	<p>Disturbed ‘white water’ surrounding the swimming whale. The vortex or whirlpool created by a whale’s rapid descent, with annotation comparing it to that of a sinking ship. Sounding of the sperm whale, with annotation.</p>	<p>Ch. 48, “The First Lowering”: sounding, 222.5; vortex [“churned circle”], 224.3; white water, 222.16, 222.39, 224.5, 224.18.</p>
<p>“Introductory Remarks”: popular ignorance, 2.5-7; Chinese whale drawing, 10.27-29; Cuvier, 13.4-6. Ch. 8, “Anatomy and Physiology of the Sperm Whale”: John Hunter, 70.9; skeleton, 72.21-22; fin bones, 72.26-28; fin bones with unrecovered annotation, 74.20-25; insect resemblance, 73.3-5 (unerased).</p>	<p>Popular ignorance about the sperm whale’s appearance. Chinese whale drawing. Frederick Cuvier’s <i>De l’Histoire Naturelle des Cétaces</i>. John Hunter. Skeleton and external form of the sperm whale. Fin bones enclosed in their covering, with unrecovered annotation on fin bones. Resemblance of the sperm whale to an insect in its chrysalis.</p>	<p>Ch. 55, “Monstrous Pictures of Whales”: popular ignorance, 260.10, 16-18; Cuvier, 262.33-36; Chinese whale drawing, 263.2-5; skeleton, 263.29-30; John Hunter, 263.35; insect resemblance, 263.35-37; fin bones, 263.39-264.6.</p>
<p>Ch. 2, “Habits of the Sperm Whale”: illustration, 33 (unerased). Ch. 13, “Chase and Capture of the Sperm Whale”: tons, 181.28 (unerased).</p>	<p>Illustration of whales in three various attitudes, with annotation on the second of these. Tons of spray thrown off by a harpooned whale.</p>	<p>Ch. 56, “Less Erroneous Pictures of Whales”: illustration, 265.12-14; tons, 266.30.</p>

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>Ch. 7, "Nature of the Sperm Whale's Food": fields of spawn, 61.18-20; Bank du Bresil, 61.24-25. Ch. 15, "Of the Favourite Places of Resort of the Sperm Whale": Brazil Banks, 189.5.</p>	<p>Fields of spawn conveying a barley-like appearance to sea water. Bank du Bresil. The 'Brazil banks,' with annotation on Barley Banks.</p>	<p>Ch. 58, "Brit": meadows of brit, 272.3-7; Brazil Banks, 272.19.</p>
<p>Ch. 7, "Nature of the Sperm Whale's Food": cuttle-fish, 64.5-24; detached tentacles, 66.18-21.</p>	<p>Giant squid a variety of cuttle-fish, with annotation. Detached tentacles of squid disgorged by the sperm whale, with unrecovered annotation.</p>	<p>Ch. 59, "Squid": detached tentacles, 277.4-6; cuttle-fish, 277.15-18.</p>
<p>Ch. 1, "External Form and Peculiarities of the Sperm Whale": cutwater shape, 28.24-29. Ch. 4, "Breathing": 'There goes flukes,' 44.11; 'going head out,' 45.26-27. Ch. 13, "Chase and Capture of the Sperm Whale": rolling, 165.15-17 (unerased); blood, 166.17, 182.27; 'flurry,' 182.26-31.</p>	<p>Shape of the sperm whale's head likened to the cutwater of a ship. Whaler's shout, 'There goes flukes,' denoting a whale's descent. Whale's method of 'going head out.' Sperm whale's manner of rolling when fastened to. Blood from the nostril. Death 'flurry' of the whale.</p>	<p>Ch. 61, "Stubb Kills a Whale": 'There go flukes,' 283.30; going 'head out,' 284.1; cutwater shape, 284.37-40; 'flurry,' 286.7-9; rolling, 285.26, 286.12; blood, 286.14-16.</p>
<p><i>South-Sea Whaling Voyage</i>, Ch. 6: sharks, 280.1-5 (unerased).</p>	<p>Disgusting appearance and bloodthirsty character of sharks.</p>	<p>Ch. 66, "The Shark Massacre": sharks, 302.12-21.</p>
<p>Ch. 14, "Of the 'Cutting In' and 'Trying Out,'": cutting in, 185.7; spiral method, 186.7-9.</p>	<p>Method of cutting in to the sperm whale's blubber. Spiral method of removing blubber.</p>	<p>Ch. 67, "Cutting In": cutting in, 303.2; spiral method, 304.7-9.</p>

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 1, "External Form and Peculiarities of the Sperm Whale": linear impressions, 31.9-11; thickness of blubber, 32.1-3. Ch. 8, "Anatomy and Physiology of the Sperm Whale": true skin, 92.1-3; flesh, 88.7-11 (unerased).	Linear impressions on the whale's skin. Thickness of the whale's blubber in inches. Blubber the true skin of the whale. John Hunter's comparison of sperm whale's flesh to that of a bull or horse.	Ch. 68, "The Blanket": linear impressions, 306.23-27; thickness of blubber, 305.9-10; true skin, 305.11-16, 306.9; flesh, 305.8-9.
Ch. 8, "Anatomy and Physiology of the Sperm Whale": length of the head, 78.12-13.	Length of the whale's skull a third of the length of its full skeleton.	Ch. 70, "The Sphinx": length of the head, 311.1-2.
Ch. 3, "Swimming": 'white water,' 39.16. Ch. 4, "Breathing": vortex, 45.17-24 (partially unerased). Ch. 13, "Chase and Capture of the Sperm Whale": blood, 166.17, 182.27; 'white water,' 168.29-30; 'fast,' 181.29.	Disturbed 'white water' surrounding the swimming whale. The vortex or whirlpool created by a whale's rapid descent, with annotation comparing it to that of a sinking ship. Blood from the nostril. Burst of spray a result of making 'fast' to a whale.	Ch. 73, "Stubb and Flask Kill a Right Whale": white water, 324.1; vortex ["maelstrom"], 324.5; blood, 324.31; fast, 324.2.
Ch. 1, "External Form and Peculiarities of the Sperm Whale": ear, 30.3-7. Ch. 8, "Anatomy and Physiology of the Sperm Whale": ear, 115.12-13.	External opening of the ear of the sperm whale contrasted with the enclosed ear of the right whale.	Ch. 74, "The Sperm Whale's Head": ear, 331.23-27.

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 8, "Anatomy and Physiology of the Sperm Whale": length of the head, 78.12-13.	Length of the sperm whale's skull a third of the length of its full skeleton.	Ch. 76, "The Battering-Ram": length of the head, 336.21.
		Ch. 77, "The Great Heidelburgh Tun": length of the head, 340.20.
Ch. 14, "Of the 'Cutting In' and 'Trying Out,'" : sinking of the head, 186.22-26.	Sinking of the decapitated sperm whale's head.	Ch. 78, "Cistern and Buckets": sinking of the head, 343.8-14, 344.18-21.
Ch. 8, "Anatomy and Physiology of the Sperm Whale": angular shape of the skull, 78.14-15; small brain, 113.9-22; cranial dimensions, 113.25-28.	Angular shape of the sperm whale's skull. Small size of the brain of the sperm whale. John Hunter, William Scoresby, and Pierre Delalande on the small dimensions of cranial cavities of whales, with unrecovered annotation on vertebrae.	Ch. 80, "The Nut": angular shape of the head, 348.7-11; small brain, 348.13-14; cranial dimensions, 348.13.

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>Ch. 2, “Habits of the Sperm Whale”: blindness, 36.10-12.</p> <p>Ch. 4, “Breathing”: ‘going head out,’ 45.26-27.</p> <p>Ch. 13, “Chase and Capture of the Sperm Whale”: sounding, 161.12-13; rolling, 165.15-17 (unerasd); blood and glory, 166.17-18; proximity of boat to whale, 182.13-14; ‘flurry,’ 182.26-31.</p>	<p>Blindness of a whale taken by the whaler <i>Sarah and Elizabeth</i>.</p> <p>Whale’s method of ‘going head out.’</p> <p>Sounding of the sperm whale, with annotation.</p> <p>Whale’s manner of rolling when fastened to. Blood from the nostril. Glory in capture.</p> <p>Proximity of boat to whale in lancing. Death ‘flurry’ of the whale, with annotation on the dying spout of the whale.</p>	<p>Ch. 81, “The Pequod Meets the Virgin”:</p> <p>blindness, 357.30-32; going head out, 354.33; sounding, 355.28-33; rolling, 357.36, 358.7-10; blood and glory, 358.4-5; proximity of boat to whale, 357.20-22; flurry, 358.2-7; dying spout, 358.11-14.</p>
<p>Ch. 4, “Breathing”: whale’s spout, 42.3-8; location, 42.18; regularity, 42.26-31, 43.1-8, 43.25-27; time, 44.12-15.</p> <p>Ch. 8, “Anatomy and Physiology of the Sperm Whale”: wind canal, 109.10-12; smell, 110.1-3.</p> <p>Ch. 13, “Chase and Capture of the Sperm Whale”: ‘spoutings out,’ 181.14-16.</p>	<p>Nature of the whale’s spout. Location of the blow-hole. Regularity of expirations. Time spent above and beneath the ocean surface. Wind canal of the whale.</p> <p>Question of the sperm whale’s capacity to smell.</p> <p>Whale’s need to have its ‘spoutings out.’</p>	<p>Ch. 85, “The Fountain”:</p> <p>whale’s spout, 370.11-13; location, 371.3-4; regularity, 371.26-35, 372.39-373.2; time, 371.14; wind canal, 372.17-20; smell, 372.7-16; spoutings out, 371.25, 371.36.</p>

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>Ch. 1, “External Form and Peculiarities of the Sperm Whale”: dimensions, 24.23-24.</p> <p>Ch. 3, “Swimming”: ‘flukes,’ 39.9. Ch. 4, “Breathing”: ‘peaking the flukes,’ 44.8-11.</p> <p>Ch. 5, “Other Actions of the Sperm Whale”: ‘sweeping,’ 46.17-19.</p>	<p>Dimensions of the sperm whale’s tail.</p> <p>Sperm whale’s ‘flukes.’</p> <p>The whale’s act of ‘peaking the flukes.’</p> <p>The whale’s act of ‘sweeping’ its tail.</p>	<p>Ch. 86, “The Tail”: dimensions, 375.14-15; flukes, 375.9-14; peaking the flukes, 376.34, 378.4-8; sweeping, 376.33, 377.19-22.</p>
<p>Ch. 4, “Breathing”: spout, 42.14-20.</p> <p>Ch. 8, “Anatomy and Physiology of the Sperm Whale”: milk, 126.14-17. Ch. 11, “Rise and Progress of the Sperm Whale Fishery”: Indian methods, 138.18-25.</p>	<p>Spout of the sperm whale distinguished from that of other whales. Sperm whale milk. Indian methods of whaling.</p>	<p>Ch. 87, “The Grand Armada”: spout, 382.32-36; milk, 388.37-39; Indian methods, 386.11-16.</p>
<p>“Introductory Remarks”: ‘schools’ 20.16-20; solitary bulls, 20.20-21.</p> <p>Ch. 2, “Habits of the Sperm Whale”: fighting, 37.1-18. Ch. 6, “Herding, and other Particulars, of the Sperm Whale”: ‘schoolmasters,’ 51.9-12; reaction, 53.6-9; separation, 54.7-9.</p>	<p>‘Schools’ of whales consisting either of females or young bulls. Solitary bulls. Fighting a cause of jaw malformation. Dominant bulls, or ‘schoolmasters,’ with annotation on Francois Eugene Vidocq. Reaction of sperm whales to attacks on companions. Separation of young bulls.</p>	<p>Ch. 88, “Schools & Schoolmasters”: schools, 391.9-12; solitary bulls, 393.1-5, 17-23; fighting, 392.18-24; schoolmaster, 393.7; Vidocq, 393.13; reaction, 393.39-394.3; separation, 393.35-37.</p>

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 10, "Ambergris": smell, 132.9-11; perfume, 134.7, 10, 28; medicinal drug, 134.8-9.	Smell of ambergris. Association of ambergris with perfume. Use of ambergris as a medicinal drug.	Ch. 91, "The Pequod meets the Rose-bud": smell, 407.20-25; perfume, 407.23; medicinal drug, 407.31-32.
Ch. 10, "Ambergris": smell, 132.9-11; Coffin, 133.24-25; Mecca, 134.12-16; perfume, 134.7-10, 28; feces, 135.4-5, 135.7-10, 135.13-14; squid remains, 135.7-10.	Smell of ambergris. Captain Coffin. Ambergris carried to Mecca. Association of ambergris with perfume. Association of ambergris with feces. Squid remains in ambergris.	Ch. 92, "Ambergris": smell, 408.14; Coffin, 408.4-6; Mecca, 408.15-17; perfume, 408.14; feces, 408.19-409.3; squid remains, 409.4-7.
Ch. 14, "Of the 'Cutting In' and 'Trying Out'": trying out, 185.7.	Subject of trying out the sperm whale's blubber.	Ch. 96, "The Try-Works": trying out, 421.2.
"Introductory Remarks": Greenland and Spitzbergen fisheries, 2.12-13. Ch. 11, "Rise and Progress of the Sperm Whale Fishery": 1775, 143.17; <i>Syren</i> , 150.11-25.	The Greenland and Spitzbergen whale fisheries. Attempt in 1775 to found British sperm whale fishery. Voyage of the whaleship <i>Syren</i> , with annotation.	Ch. 101, "The Decanter": Greenland and Spitzbergen fisheries, 446. 22-23; 1775, 443.10-11; <i>Syren</i> , 444.10-15.
Ch. 8, "Anatomy and Physiology of the Sperm Whale": Sir Clifford, 72.1-5, 75.24-28; Hull, 76.18-20.	Skeleton of a sperm whale preserved Sir Clifford of Holderness at Burton-Constable. Skeletons at the Museum of Natural History at Hull.	Ch. 102, "A Bower in the Arsacides": Sir Clifford, 451.11-26; Hull, 451.6-8.

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>“Introductory Remarks”: Scoresby’s account, 15.22-26. Ch. 1, “External Form and Peculiarities of the Sperm Whale”: length, 27.14-15; circumference, 27.18-20. Ch. 8, “Anatomy and Physiology of the Sperm Whale”: skeleton, 72.21-22; vertebrae, 81.13-15; rib, 85.16-17.</p>	<p>William Scoresby’s account of the length of the Greenland whale compared to that of the sperm whale. Length and circumference of the sperm whale. Skeleton and external form of the sperm whale. Dimensions of dorsal vertebrae. Dimensions of largest rib.</p>	<p>Ch. 103, “Measurement of the Whale’s Skeleton”: Scoresby’s account, 452.7-8; length and circumference, 452.9-11; skeleton, 453.25-26; vertebrae, 454.7-16; rib, 453.18-19.</p>
<p><i>South-Sea Whaling Voyage</i>, Ch. 6: typhoon, 269.25-28, 271.17-19, 272.13-21 (all unerased).</p>	<p>Onset of a typhoon.</p>	<p>Ch. 119, “The Candles”: typhoon, 503.3-15.</p>
<p><i>South-Sea Whaling Voyage</i>, Ch. 1: seals, 213.19-22 (unerased).</p>	<p>Barking of seals.</p>	<p>Ch. 126, “The Life-Buoy”: seals, 524.4-13.</p>
<p>Ch. 2, “Habits of the Sperm Whale”: jaw, 36.28-30. Ch. 4, “Breathing”: ‘peaking the flukes,’ 44.8-11; ‘There goes flukes,’ 44.11; time, 44.12-15. Ch. 5, “Other Actions of the Sperm Whale”: perpendicular posture, 47.6-8. Ch. 7, “Nature of the Sperm Whale’s Food”: nautilus, 60.15-61.3.</p>	<p>Jaw malformation. ‘Peaking the flukes.’ Whalers’ call, ‘There goes flukes.’ Amount of time spent beneath the surface. Perpendicular posture assumed by whales surveying surroundings. Paper-nautilus.</p>	<p>Ch. 133, “The Chase—First Day”: jaw, 548.39, 549.24, 549.39; peaking the flukes, 549.3; ‘There go flukes,’ 547.30; time, 549.9; perpendicular posture, 550.29-35, 38-39; nautilus, 548.3.</p>

A. Marked text and annotations in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>Ch. 4, “Breathing”: vortex, 45.17-24 (partially unerasred). Ch. 5, “Other Actions of the Sperm Whale”: ‘sweeping,’ 46.17-19; breaching, 48.13-18, 19-23.</p>	<p>The vortex or whirlpool created by a whale’s rapid descent, with annotation comparing it to that of a sinking ship. ‘Sweeping’ of the tail. Breaching, with annotation attributing the act to defiance.</p>	<p>Ch. 134, “The Chase—Second Day”: vortex [“maelstrom”], 559.18; sweeping, 559.35-39; breaching, 557.35-558.11; defiance, 558.4.</p>
		<p>Ch. 135, “The Chase—Third Day”: breaching, 567.20-30; vortex, 572.17-20.</p>
		<p>“Epilogue”: vortex, 573.10-13.</p>

Appendix 2:

Correspondence between unmarked text in
Thomas Beale's *The Natural History of the Sperm Whale* and the text of *Moby-Dick*.

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 2, "Habits of the Sperm Whale": neglect, 33.4-11.	Astonishing neglect of the sperm whale as a subject of inquiry.	"Extracts (Supplied by a Sub-Sub-Librarian)": neglect, xxv.30-xxvi.3.
Ch. 11, "Rise and Progress of the Sperm Whale Fishery": pursuit, 138.12-14.	Pursuit of sperm whales by American Indians in canoes.	Ch. 2, "The Carpet-Bag": pursuit, 8.18-20.
"Contents": 'Old Thunder,' 10.13-14; <i>South-Sea Whaling Voyage</i> , Ch. 5: 'Old Thunder,' 261.27.	Name of 'Old Thunder.'	Ch. 19, "The Prophet": 'Old Thunder,' 92.7, 9.
Ch. 11, "Rise and Progress of the Sperm Whale Fishery": Louis XVI, 144.19-22; bounties, 144.1-9; Burke, 142.8-10.	Louis XVI. British bounties created to promote whaling industry. Edmund Burke.	Ch. 24, "The Advocate": Louis XVI, 109.20-22; bounties, 109.22-24; Burke, 111.10-11.

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>Epigraphs: half-title verso.5-14. "Introductory Remarks": G. Cuvier, 1.21, 5.9, 6.6-7, 9.1, 15.7, 21.4, 30, 22.7; F. Cuvier, 13.1, 25, 28, 14.3, 16.15, 17.30; Green, 9.16; Aldrovandus, 9.16-17; Willoughby, Rondelet, Artedi, Ray, Sibbald, 9.17; Linnæus, 9.18, 10.8; Brisson, Marten, 9.18; Lacapedé, 9.23, 10.15, 10.27, 12.14; Bonnaterre, 10.11; Desmarest, 10.26; Brown[e], 19.1; Bennett, 19.3. Ch. 1, "External Form and Peculiarities of the Sperm Whale": Lacapedé, 30.29. Ch. 6, "Herding, and other Particulars, of the Sperm Whale": F. Cuvier, 52.9, 13; Bennett, 52.11, 19. Ch. 7, "Nature of the Sperm Whale's Food": Owen, 64.19, 66.4, 69.7. Ch. 8, "Anatomy and Physiology of the Sperm Whale": Hunter, 71.10, 13, 72.14, 92.26, 105.7, 106.2; 114.4, 126.18; F. Cuvier, 77.3, 113.22; Owen, 106.2; Bennett, 71.28, 95.30, 119.6. Ch. 9, "Spermaceti": Hunter, 128.9; Brown[e], 127.3. Ch. 10, "Ambergris": Brown[e], 131.4-5. Ch. 15, "Of the Favourite Places of Resort of the Sperm Whale": F. Cuvier, 188.10, 14; Brown[e], 188.15.</p>	<p>Beale's epigraphs from John Hunter, René Lesson, William Scoresby, and Georges Cuvier. References to the following men who have written on the whale: Baron George Cuvier, Frederic Cuvier, Joseph Henry Green, Aldrovandus, Thomas Willoughby, Guillaume Rondelet, Peter Artedi, John Ray, Robert Sibbald, Carl Linnæus, Mathurin Jacques Brisson, Friederich Martens, Bernard Germain La Cépède, Pierre Joseph Bonnaterre, Anselme Gaëtan Desmarest, Sir Thomas Browne, Frederick Debbell Bennett, Sir Richard Owen, John Hunter. (See appendix 1 for additional references to William Scoresby and John Hunter, and appendix 1 and 3 for additional references to Frederick and George Cuvier.)</p>	<p>Ch. 32, "Cetology": epigraphs, 134.13-14, 19-22; Baron [G.] Cuvier, F. Cuvier, 135.9; Aldrovandi, Browne, Ray, Linnæus, 135.7; Rondeletius, Willoughby, Green, Artedi, Sibbald, Brisson, Marten, 135.8; Lacépède, Bonnaterre, Desmarest, Hunter, 135.9-10; Owen, Bennett, 135.10.</p>

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>Ch. 5, “Other Actions of the Sperm Whale”: rolling, 46.21-47.2. Ch. 13, “Chase and Capture of the Sperm Whale”: blood, 160.24-26, 166.13-14, 174.18-19, 176.1. <i>South-Sea Whaling Voyage</i>, “Introductory Remarks”: blood, 196.28-29.</p>	<p>Sperm whale’s manner of rolling when fastened to. Blood from the nostril of the sperm whale.</p>	<p>Ch. 36, “The Quarter-Deck”: blood and rolling, 163.18.</p>
<p>“Introductory Remarks”: Olassen and Povelsen, 4.13-14. Ch. 24, “External Form and Peculiarities of the Sperm Whale”: pyramidal shape, 24.12-13. Ch. 4, “Breathing”: pyramidal shape, 41.21-22. Ch. 13, “Chase and Capture of the Sperm Whale”: vortex, 159.11, 180.30-181.1.</p>	<p>References to Eggert Ólafsson and Bjarni Pálsson. Pyramidal shape of the sperm whale’s hump. The vortex or whirlpool created by a whale’s rapid descent.</p>	<p>Ch. 41, “Moby Dick”: Olassen and Povelsen, 181.27-28; pyramidal shape, 183.19; vortex [“whirling in the eddies”], 184.7-8.</p>
<p>Ch. 12, “Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale”: ‘loggerhead,’ 155.8-9; keg, 155.15-17; ‘there she spouts’ and ‘there again,’ 156.13-14.</p>	<p>The ‘loggerhead’ of the whaleboat. Water-proof match keg of the whaleboat. Whaling calls ‘there she spouts [or blows]’ and ‘there again.’</p>	<p>Ch. 48, “The First Lowering”: loggerhead, 221.7-9; keg, 225.15-16; ‘there she blows’ and ‘there again,’ 218.20.</p>
<p>“Introductory Remarks”: incorrect drawings, 13.6-10; Cuvier outline, 14.3.</p>	<p>Incorrect drawings based on stranded whales. Sperm whale outline based on Frederick Cuvier’s picture.</p>	<p>Ch. 55, “Monstrous Pictures of Whales”: incorrect drawings, 263.12-17; Cuvier outline, 262.36-263.2.</p>

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Frontispiece. "Introductory Remarks": outline sketches, 14.3-4; Huggins outline, 14.4.	Beale's frontispiece, "Boats Attacking Whales," by William James Linton. Outline sketches of the sperm whale. Sperm whale outline based on William Huggins's "South Sea Whale Fishery" (1834).	Ch. 56, "Less Erroneous Pictures of Whales": frontispiece, 265.14-17; outline sketches, 267.13-17; Huggins outline, 265.10-12.
Ch. 7, "Nature of the Sperm Whale's Food": rising, 66.28-67.6. Ch. 12, "Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale": 'there again,' 156.14. <i>South-Sea Whaling Voyage</i> , Ch. 6: tentacles, 268.17-21.	Rising and falling motion of squid. Whaling call 'there again.' Tentacles of squid disgorged by the sperm whale.	Ch. 59, "Squid": rising, 275.15-18, 276.15; 'there again,' 275.22; tentacles, 277.4-6.
Ch. 12, "Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale": 'loggerhead,' 155.8-9; groove, 155.10-11; line and tubs, 155.11-14.	The 'loggerhead' of the whaleboat. The groove at the head of the whaleboat. The whale line and tubs in which it is coiled.	Ch. 60, "The Line": loggerhead, 280.2; grooves, 280.6; whale line and tubs, 278.2-279.20, 280.1-14.

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>Ch. 1, “External Form and Peculiarities of the Sperm Whale”: buoyancy, 28.9-22.</p> <p>Ch. 5, “Other Actions of the Sperm Whale”: rolling, 46.21-47.2. Ch. 7, “Nature of the Sperm Whale’s Food”: squid, 66.22-25.</p> <p>Ch. 12, “Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale”: ‘loggerhead,’ 155.8-9; headsman and boatsteerer, 157.3-20; lancing, 157.19-20. Ch. 13, “Chase and Capture of the Sperm Whale”: lancing, 159.23-25, 160-182, passim; ‘stern all,’ 159.25-26, 164.9, 165.12; blood, 160.24-26, 166.13-14, 174.18-19, 176.1. <i>South-Sea Whaling Voyage</i>, “Introductory Remarks”: blood, 196.28-29.</p>	<p>Buoyancy of the sperm whale’s head allows it to lift its head above the water to increase its speed. Sperm whale’s manner of rolling when fastened to. Squid a sign of sperm whale proximity. The ‘loggerhead’ of the whaleboat. Roles of the headsman and boatsteerer in the chase. Lancing the sperm whale. Headsman’s cry of ‘stern all.’ Blood from the nostril.</p>	<p>Ch. 61, “Stubb Kills a Whale”: buoyancy, 284.35-36; rolling, 285.26, 286.12; squid, 282.5-6; loggerhead, 284.26-28; headsman and boatsteerer, 285.4-6; lancing, 286.2-6; ‘stern all,’ 284.22-23; blood, 286.14-16.</p>
<p>Ch. 12, “Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale”: headsman and boatsteerer, 157.3-20.</p>	<p>Roles of the headsman and boatsteerer in the chase.</p>	<p>Ch. 62, “The Dart”: headsman and boatsteerer, 287.5-7, 19-22; 288.8-12.</p>
<p>Ch. 24, “External Form and Peculiarities of the Sperm Whale”: ‘small,’ 24.10-11.</p>	<p>The ‘small’ of the sperm whale’s back.</p>	<p>Ch. 64, “Stubb’s Supper”: ‘small,’ 292.22.</p>

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 24, “External Form and Peculiarities of the Sperm Whale”: pyramidal shape, 24.12-13. Ch. 4, “Breathing”: pyramidal shape, 41.21-22. Ch. 8, “Anatomy and Physiology of the Sperm Whale”: lobes, 111.14.	Pyramidal shape of the sperm whale’s hump. Two lobes of the sperm whale’s cerebellum.	Ch. 65, “The Whale as a Dish”: pyramidal shape, 299.13; lobes, 299.22-23.
Ch. 1, “External Form and Peculiarities of the Sperm Whale”: true skin, 31.30-32.1; ‘blanket,’ 32.14-15.	Blubber the true skin of the sperm whale. Aptness of the term ‘blanket.’	Ch. 68, “The Blanket”: true skin, 305.15-16, 306.9; blanket, 307.6-8.
Ch. 13, “Chase and Capture of the Sperm Whale”: vortex, 159.11, 180.30-181.1; lancing, 159.23-25, 160-182, passim; blood, 160.24-26, 166.13-14, 174.18-19, 176.1. <i>South-Sea Whaling Voyage</i> , “Introductory Remarks”: blood, 196.28-29.	The vortex or whirlpool created by a whale’s rapid descent. Lancing the sperm whale. Blood from the nostril.	Ch. 73, “Stubb and Flask Kill a Right Whale”: vortex [“maelstrom”], 324.5; lancing, 324.25; blood, 324.31.
“Introductory Remarks”: suspension, 8.23-30. Ch. 2. “Habits of the Sperm Whale”: suspension, 35.4-8. Ch. 1, “External Form and Peculiarities of the Sperm Whale”: ear, 27.2-5; ‘grey-headed,’ 31.20-22; white membrane, 26.24-25. Ch. 8, “Anatomy and Physiology of the Sperm Whale”: ear and eye, 114.28-115.2.	Sperm whale’s suspension of itself beneath the ocean surface with jaw open. Location of the ear and eye of the sperm whale. Grey noses of bull sperm whales said to make them ‘greyheaded.’ White membrane of the sperm whale’s mouth.	Ch. 74, “The Sperm Whale’s Head”: suspension, 332.9-16; ear and eye, 330.1-2; eye, 330.2-4; ear, 331.21-23; ‘greyheaded,’ 329.19-22; white membrane, 332.1-3.

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 1, "External Form and Peculiarities of the Sperm Whale": small tongue, 26.19-20.	Small tongue of the sperm whale.	Ch. 75, "The Right Whale's Head": small tongue, 335.23.
Ch. 1, "External Form and Peculiarities of the Sperm Whale": swimming, 28.19-21. Ch. 8, "Anatomy and Physiology of the Sperm Whale": ear and eye, 114.28-115.2.	Sperm whale's act of swimming with its head elevated above the water. Location of the sperm whale's ear and eye.	Ch. 76, "The Battering-Ram": swimming, 337.29-30; ear and eye, 336.20.
Ch. 1, "External Form and Peculiarities of the Sperm Whale": 'case,' 25.16-26.2.	'Case' and 'junk' of the sperm whale's head.	Ch. 77, "The Great Heidelburgh Tun": Case, 339.14-18, 340.1-17.
Ch. 24, "External Form and Peculiarities of the Sperm Whale": pyramidal shape, 24.12-13. Ch. 4, "Breathing": pyramidal shape, 41.21-22.	Pyramidal shape of the sperm whale's hump.	Ch. 79, "The Prairie": pyramidal shape, 347.1-2.
Ch. 8, "Anatomy and Physiology of the Sperm Whale": spinal cord, 113.29-114.1.	Large girth of the sperm whale's spinal cord compared to that of its brain.	Ch. 80, "The Nut": spinal cord, 350.1-6.

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>“Introductory Remarks”: silence, 3.8-9, 17.29-30. Ch. 5, “Other Actions of the Sperm Whale”: rolling, 46.21-47.2. Ch. 12, “Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale”: ‘loggerhead,’ 155.8-9. Ch. 13, “Chase and Capture of the Sperm Whale”: lancing, 159.23-25, 160-182, passim; blood, 160.24-26, 166.13-14, 174.18-19, 176.1; turning on its side, 161.3-5. <i>South-Sea Whaling Voyage</i>, “Introductory Remarks”: blood, 196.28-29.</p>	<p>Silence of the sperm whale. Sperm whale’s manner of rolling when fastened to. The ‘loggerhead’ of the whaleboat. Lancing of the sperm whale. Blood from the nostril. Sperm whale’s manner of turning on its side when dead.</p>	<p>Ch. 81, “The Pequod Meets the Virgin”: silence, 355.2; rolling, 357.36, 358.7-10; loggerheads, 355.29-30; lancing, 357.21-22; blood, 358.4; turning on its side, 358.10-11.</p>

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>“Introductory Remarks”: silence, 3.8-9, 17.29-30; duration, 16.12-14; condensation, 17.1; water in the spout hole, 17.6-11; water swallowed while feeding, 17.12-28. Ch. 3, “Swimming”: ‘hump,’ 39.13. Ch. 4, “Breathing”: ‘hump,’ 41.21-22; respiration, 44.22-23; temporary descent, 45.9-16. Ch. 8, “Anatomy and Physiology of the Sperm Whale”: spouting canal, 109.13-17; inability to breathe by the mouth, 109.18-19.</p>	<p>Silence of the sperm whale. Historical duration of questions surrounding nature of the sperm whale’s spout. Condensation of the vapor of the sperm whale’s spout. Water lodged in the spout hole. Question of water swallowed by the sperm whale while feeding. Projection of sperm whale’s ‘hump.’ Seventh of the sperm whale’s time spent in respiration. Temporary descent of the sperm whale when alarmed. The spouting canal. Sperm whale’s inability to breathe by the mouth.</p>	<p>Ch. 85, “The Fountain”: silence, 372.20; duration, 370.3-13; condensation, 373.13-15; water in the spout hole, 373.15-21; water swallowed while feeding, 372.33-38; hump, 373.18; respiration, 372.5-6; temporary descent, 371.31-32; spouting canal, 372.17-20, 26-29; inability to breathe by the mouth, 370.21-22.</p>
<p>Ch. 3, “Swimming”: progression, 40.18-19. Ch. 5, “Other Actions of the Sperm Whale”: ‘lob-tailing,’ 47.25-27. Ch. 8, “Anatomy and Physiology of the Sperm Whale”: muscular concentration, 89.5-8; beauty, 89.16-18; composition, 89.18-90.1.</p>	<p>Sperm Whale’s use of its flukes for progression and for ‘lob-tailing.’ Muscular concentration of the sperm whale’s tail. Beauty and composition of the tail.</p>	<p>Ch. 86, “The Tail”: progression, 376.32-33, 37-38; lobtailing, 376.34, 377.29-36; muscular concentration, 376.4-10; beauty, 375.12-14; composition, 375.16-376.3.</p>

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
<p>“Introductory Remarks”: breeding and calving, 19.30-20.1-13. Ch. 4, “Breathing”: ‘gallied,’ 42.21. Ch. 5, “Other Actions of the Sperm Whale”: ‘gallied,’ 46.11-14; ‘fastened to,’ 46.23. Ch. 6, “Herding, and other Particulars, of the Sperm Whale”: breeding and calving, 52.5-7; young, 52.10-13. Ch. 8, “Anatomy and Physiology of the Sperm Whale”: teats, 125.19-21. Ch. 11, “Rise and Progress of the Sperm Whale Fishery”: drugs, 140.11-12. Ch. 12, “Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale”: ‘whifts,’ 155.17-21; ‘drougues,’ 155.21-25.</p>	<p>Sperm whale breeding occurs in all seasons, and females produce a single calf, with the occasional exception of twins. Sperm whale’s condition of being ‘gallied.’ Harpoon and line said to be ‘fastened to’ the sperm whale. Length and girth of sperm whale young and their position in the uterus. Location of the teats. Use of drugs (‘drougues’) in harpooning whales. “Whifts,” or waifs, used to mark possession of a slain whale.</p>	<p>Ch. 87, “The Grand Armada”: breeding and calving, 388.32-35; gallied, 384.25; fastened to, 385.32; young, 388.8-13; teats, 388.35-36; druggs, 386.11-17; waif, 390.26-30.</p>
<p>“Introductory Remarks”: size, 14.5-15. Ch. 6, “Herding, and other Particulars, of the Sperm Whale”: ‘schools,’ 51.4-7; size, 52.22-24; ‘young bulls,’ 54.3-4. Ch. 13, “Chase and Capture of the Sperm Whale”: forty-barrel bulls , 160.3-10.</p>	<p>Size of female sperm whales in comparison to males. ‘Schools’ of sperm whales consisting either of females or young bulls. Difficulty of killing ‘young bulls,’ or forty-barrel bulls.</p>	<p>Ch. 88, “Schools & Schoolmasters”: size, 391.17-21; schools, 391.9-12; forty-barrel-bulls, 393.26-28.</p>

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 12, "Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale": 'whifts,' 155.17-21.	'Whifts,' or waifs, used to mark possession of a slain whale.	Ch. 89, "Fast-Fish and Loose-Fish," waifs, 395.3-6, 396.13-14.
Ch. 10, "Ambergris": quotation on smell of carcass, 131.7-11.	Quotation from Sir Thomas Browne on the bad smell of a sperm whale's carcass.	Ch. 91, "The Pequod meets the Rose-bud": quotation on smell of carcass, 402.3-4.
Ch. 10, "Ambergris": Paracelsus, 131.12-15; cooking, 134.11; pastiles, etc., 134.17-19.	Paracelsus's judgment that ordure makes the best musk. Ambergris used in cooking. Ambergris used for pastiles, candles, hair powder, and pomatum.	Ch. 92, "Ambergris": Paracelsus, 409.12; cooking, 408.16; pastiles, etc., 408.15.
Ch. 14, "Of the 'Cutting In' and 'Trying Out'": 'scraps,' 187.6-8.	Sperm whale 'scraps' used for fuel to fire the try-works.	Ch. 96, "The Try-Works": scraps, 422.22-27.
Ch. 5, "Other Actions of the Sperm Whale": 'fastened to,' 46.23.	Harpoon and line said to be 'fastened to' the sperm whale.	Ch. 100, "Leg and Arm": fastened to, 438.7-8
Ch. 11, "Rise and Progress of the Sperm Whale Fishery": 'Amelia,' 148.10-30.	Samuel Enderby's ship <i>Amelia</i> the first whaleship to reach the South Pacific, followed by whalers of other nations.	Ch. 101, "The Decanter": <i>Amelia</i> , 443.19-444.3.
Ch. 8, "Anatomy and Physiology of the Sperm Whale": rivalry, 76.15-16.	Rivalry among scientists/priests preserving sperm whale skeleton.	Ch. 102, "A Bower in the Arsacides": rivalry, 450.38-451.1.

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 8, "Anatomy and Physiology of the Sperm Whale": smallest vertebrae, 82.21-23.	Smallest bone of the sperm whale's vertebrae.	Ch. 103, "Measurement of the Whale's Skeleton": smallest vertebrae, 454.10-12.
Ch. 13, "Chase and Capture of the Sperm Whale": 'stern all' 159.25-26, 164.9, 165.12.	Headsman's cry of 'stern all.'	Ch. 111, "The Pacific": 'stern all,' 483.15.
Ch. 13, "Chase and Capture of the Sperm Whale": head towards the sun, 161.1-2.	Sailors' belief that the dying sperm whale turns its head towards the sun.	Ch. 116, "The Dying Whale": head towards the sun, 496.16-497.9.
Ch. 12, "Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale": 'whifts,' 155.17-21.	'Whifts,' or waifs, used to mark possession of a slain whale.	Ch. 117, "The Whale Watch": waif, 498.8.
"Contents": 'Old Thunder,' 10.13-14. <i>South-Sea Whaling Voyage</i> , Ch. 5: 'Old Thunder,' 261.27.	Name of 'Old Thunder.'	Ch. 119, "The Candles": Old Thunder, 505.11.
Ch. 13, "Chase and Capture of the Sperm Whale": 'stern all' 159.25-26, 164.9, 165.12.	Headsman's cry of 'stern all.'	Ch. 123, "The Musket": 'stern all,' 515.31.
Ch. 5, "Other Actions of the Sperm Whale": perpendicular posture, 47.20-24. Ch. 12, "Description of the Boats, with the Various Instruments, Employed in the Capture of the Sperm Whale": 'there she spouts' and 'there again,' 156.13-14.	Perpendicular posture assumed by whales surveying surroundings. Whaling calls 'there she spouts [or blows]' and 'there again.'	Ch. 133, "The Chase—First Day": perpendicular posture, 550.29-35, 38-39; 'there she blows' and 'there again,' 547.25-26.

A. Unmarked text in Beale	B. Content	C. Text of <i>Moby-Dick</i>
Ch. 5, “Other Actions of the Sperm Whale”: ‘breaching,’ 48.1-10, 50.28-30. Ch. 13, “Chase and Capture of the Sperm Whale”: vortex, 159.11, 180.30-181.1.	‘Breaching’ of the sperm whale. The vortex or whirlpool created by a whale’s rapid descent.	Ch. 134, “The Chase—Second Day”: breaching, 557.38-558.4; vortex [“maelstrom”], 559.18;
Ch. 5, “Other Actions of the Sperm Whale”: rolling, 46.21-47.2. Ch. 13, “Chase and Capture of the Sperm Whale”: staving, 184.5-8.	Sperm whale’s manner of rolling when fastened to. Whale staving a ship.	Ch. 135, “The Chase—Third Day”: rolling, 569.28; staving, 571.17-23.

Appendix 3:

Marked text and annotations in Beale's *Natural History of the Sperm Whale* that lack corresponding subject matter in *Moby-Dick*.

A. Marked text and annotations in Beale	B. Content
<p>“Introductory Remarks”: arctic regions, 2.11-16; groans and cries, 3.26-27; Greenland whale sounds, 4.6-9; dead body, 5.24-28; whale’s throat, 7.3-6; species, 12.15; Naturalist’s Library, 18.5-6; isolation, 20.21-23 (partially marked); left eye, 20.24-26; inextricable veil, 21.9-10; nostril, 29.2-6; rate of motion, 29.9-11.</p>	<p>Popular association of the whale fishery with arctic regions rather than southern zones. Groans and cries falsely attributed to the sperm whale by George Cuvier. Sounds produced by the Greenland whale. George Cuvier’s report that fish avoid the dead body of the sperm whale. Sperm whale’s throat scarcely broad enough to admit the body of a man, and teeth not capable of mastication. No more than one species of sperm whale. The Naturalist’s Library volume on whales. Frederic Cuvier’s conjecture that bull sperm whales do not naturally live in isolation. George Cuvier’s false report that the sperm whale’s left eye is smaller than its right, and that fisherman therefore attack it on the left. Inextricable veil covering the true history of the sperm whale by fault of previous writers. Nostril of the Greenland whale located further back than the sperm whale’s from the front of the head. Greenland whale’s rate of motion not equal to the sperm whale’s.</p>
<p>Ch. 1, “External Form and Peculiarities of the Sperm Whale”: 27.16-18.</p>	<p>Exact dimensions for the depth of head, breadth, and depth of body of the sperm whale. For Melville’s use of Beale’s observation that the head is one third the length of its body, see chapters 70, 76, and 77 of <i>Moby-Dick</i> in appendix 1. For Melville’s augmentative treatment of Beale on the sperm whale’s circumference, see chapter 103 in appendix 1.</p>

A. Marked text and annotations in Beale	B. Content
Ch. 2, “Habits of the Sperm Whale”: 33.11-17.	Beale observes his account of the sperm whale is not a perfect sketch but claims it is based on novel and original observations.
Ch. 4, “Breathing”: nose, 41.23-25; spout, 42.13-14; ‘drawback,’ 43.19-21; sounding, 44.24-30; respiration, 45.5-8.	Nose of the sperm whale located forty to fifty feet from its hump. Sperm whale’s spout viewable from four to five miles on a clear day. ‘Drawback’ sound of inspiration a characteristic of ‘finback’ whales but not of sperm whales. Sounding durations of female sperm whales. Accelerated respiration in young bull sperm whales.
Ch. 5, “Other Actions of the Sperm Whale”: breach, 48.15-16, 48.19-23; sword, 49.1-5.	Sperm whale seldom breaches more than twice or thrice at a time or in quick succession. Beale’s hypothesis that sperm whales breach in order to rid themselves of parasites. Portion of the sword of a sword-fish embedded in the side of a stranded whale.
Ch. 6, “Herding, and Other Particulars, of the Sperm Whale”: communication, 54.14-16; Ixion, 54.	Sperm whales’ mode of communication over distances remains unknown. Annotation comparing young bull sperm whales to the mythological figure of Ixion. (See the “Epilogue” of <i>Moby-Dick</i> [573] for Melville’s unrelated reference to Ixion.)

A. Marked text and annotations in Beale	B. Content
<p>Ch. 7, “Nature of the Sperm Whale’s Food”: walking, 59.19-20; tentacles, 60.3-5; paper-nautilus, 60; Sinbad’s ship, 60; giant cephalopod, 63.23-25; Polynesians’ dread, 64.18-24; danger and death, 65.10-29; ‘flying squid,’ 66.1; frightening encounter, 67.9-68.25.</p>	<p>Cuttle-fish’s method of walking upside down. Tentacles used by cuttle-fish to cling to rocks. Description of the paper-nautilus. Annotations on paper-nautilus and comparison of cuttle-fish to Sinbad’s ship. Giant cephalopod discovered during Captain Cook’s first voyage. Polynesians’ dread of cephalopods. Danger of cephalopods to swimmers, with annotation on squid. Death of a Sardinian captain by squid. ‘Flying squid.’ Beale’s account of his frightening encounter with a squid at the Bonin Islands.</p>
<p>Ch. 8, “Anatomy and Physiology of the Sperm Whale”: Hunter’s claim, 109.20-21; flying animals, 116.5-6; duration, 125.14-16.</p>	<p>John Hunter’s claim that the human species alone breathe by the mouth. Swimming animals compared to flying animals, with annotation on whale as a species of condor. Duration of sperm whale copulation.</p>
<p>Ch. 10, “Ambergris”: quantity, 133.26-27.</p>	<p>Quantity of ambergris obtained by Captain Coffin.</p>
<p>Ch. 11, “Rise and Progress of the Sperm Whale Fishery”: 1720, 139.24-25; presumption, 140.19-24; bounties, 152.</p>	<p>One of the first sperm whale voyages undertaken in 1720. Presumption of those who first attempted to capture whales by line and harpoon. Annotation on discontinuation of British whaling bounties.</p>

A. Marked text and annotations in Beale	B. Content
<p>Ch. 13, “Chase and Capture of the Sperm Whale”: unaided situation, 158.16-17; cutwater, 159.27; whaling chant, 162.25; oar held up, 164.14-15; rescue attempt, 170.5-10; keel broken, 184.3-5; towing a whale, 184.</p>	<p>Unaided situation of the whaleman contrasted with that of the adventurer on land. Stern of the whaleboat becomes its cutwater when backed away from a lanced whale. Whaling chant. Oar held up by whalers to signal that whale line is running out. Unrecovered annotation on rescue attempt by a Sandwich islander. Beale’s erroneous report that a part of the keel of the whaleship Essex was broken off by the whale that sank it. Annotation on whalers towing a whale away from the vortex created by a sinking ship.</p>
<p><i>South-Sea Whaling Voyage</i>: sensation, 206.2-11 (uneraser); interaction, 209.15-16; ‘Far west,’ 218.18 (uneraser); Charles Fenno, 218 (uneraser); whalers, 285.12-20 (uneraser); despairing comparison, 288.12-17 (uneraser); daring, 298.25-30 (uneraser); pantomime, 302.21-30 (uneraser); severed arm, 343.29-30 (uneraser); spreading sails, 358.13-16 (uneraser).</p>	<p>Beale’s description of sensation received during an earthquake. Interaction with Chilean natives. ‘Far west’ of Hoffman. Annotation on Charles Fenno [Hoffman]. Whalers attempting to beach their boat amidst rocks and surf. Beale’s despairing comparison of himself and companions to the family of Noah in the flood. Daring of whalers. Efforts to communicate by pantomime with Papuan New Guinean natives. Beale’s description of severed arm as the victim’s best friend. Beale’s description of sailors spreading sails, with annotation on Beale’s description.</p>

Contributors

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PAUL M. WRIGHT retired in 2006 as an editor at the University of Massachusetts Press, where he founded and managed the Press's series "Studies in Print Culture and the History of the Book." He was the recipient of a 2009–2010 Fellowship at Houghton Library, Harvard University, to research the *Harvard Classics*. In the course of that research the material was uncovered on which this paper is based.