INVENTING THE BUG-EYED MONSTER: DEVIL-FISH AND GIANT SQUID IN H. G. WELLS'S EARLY FICTION Genie Babb

[T]he rounded bodies were new and ghastly-looking creatures, in shape somewhat resembling an octopus, with huge and very long and flexible [brown] tentacles, coiled copiously on the ground. The skin had a glistening texture, unpleasant to see, like shiny leather. The downward bend of the tentacle-surrounded mouth, the curious excrescence at the bend, the tentacles, and the large intelligent eyes, gave the creatures a grotesque suggestion of a face. They were the size of a fair-sized swine about the body, and the tentacles seemed to him to be many feet in length. [. . .] Their bodies lay flatly on the rocks, and their eyes regarded him with evil interest.¹

A big greyish rounded bulk, the size, perhaps, of a bear, was rising slowly [. . .]. As it bulged up and caught the light, it glistened like wet leather.

Two large dark-coloured eyes were regarding me steadfastly. The mass that framed them, the head of the thing, was rounded, and had, one might say, a face. There was a mouth under the eyes, the lipless brim of which quivered [. . .]. A lank tentacular appendage gripped the edge of the cylinder, another swayed in the air. [. . .] The peculiar V-shaped mouth [. . .], the absence of brow ridges, [. . .] the Gorgon groups of tentacles, [. . .]—above all, the extraordinary intensity of the immense eyes—were at once vital, intense, inhuman, crippled and monstrous. There was something fungoid in the oily brown skin [. . .].

[J]ust beneath [the eyes was] a fleshy beak. [...] In a group around the mouth were sixteen slender, almost whip-like tentacles, arranged in two bunches of eight each.²

¹ H. G. Wells, 'The Sea Raiders' (1896), in *The Country of the Blind and Other Stories*, ed. Michael Sherborne (New York: Oxford UP, 1996), 142-3, 147.

² H. G. Wells, *The War of the Worlds* (1898), ed. Patrick Parrinder (London: Penguin, 2005), 21-2, 124-5.

On the basis of the above passages from H. G. Wells's 'The Sea Raiders' (1896) and The War of the Worlds (1898), these two monsters might easily be mistaken for each other. Both have 'rounded' bodies roughly the same size; both have 'one might say' a 'grotesque suggestion' of a face, with eyes that are 'large', 'intelligent', 'intense', and hostile; both have a prominent, 'tentacle-surrounded' 'excrescence' of a mouth resembling a 'beak'; both have brownish skin that 'glistens' like 'shiny' or 'wet' leather; and both are 'ghastly' and 'monstrous'. Yet the former comes from the earth's ocean depths and the latter comes from Mars. Wells's use of almost identical morphology for creatures with such different origins deserves investigation; however, few scholars have analyzed this curious resemblance in any depth, though several have noted it. Darko Suvin credits Wells with creating 'the model for all the Bug-Eyed Monsters of later chauvinistic SF' and creates a taxonomy of three general types: the 'octopoid', 'insectoid', and 'reptilian'.³ More specifically, Brian Murray notes that 'the flesh-eating sea monsters' of 'The Sea Raiders' 'anticipate the Martians'.⁴ J. R. Hammond comments on the journalistic narrative technique of the story, which, along with the monsters themselves, 'strikingly foreshadows the first sight of the Martians'.⁵

Much more attention has been given to the similarity between the Martians and 'Wells's Darwin-inspired musings on the future of humanity', a connection made explicitly by the novel itself.⁶ Frank McConnell argues that the Martians 'represent not the simple danger of the monstrous and the unknown, but rather the danger of what we ourselves might become'.⁷ Michael Draper sees this danger as loss of a moral compass: 'the development of the brain and hands at the expense of the rest of the body [. . .] would be accompanied by a loss of their "emotional substratum"' suggesting that 'values are not only relative but ultimately indispensable'.⁸ These analyses refer to an allusion in the novel to Wells's own 1893 essay in which he envisions future human beings with 'a larger brain, and a slighter body than the present' except for the hand, 'the teacher and interpreter of the brain', which 'will become constantly more powerful and subtle as the rest of

³ Darko Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven: Yale UP, 1979), 209, 229.

⁴ Brian Murray, *H. G. Wells* (New York: Continuum, 1990), 35.

⁵ J. R. Hammond, *H. G. Wells and the Short Story* (New York: St. Martin's, 1992), 64. See also 'Precarious Man', in H. G. Wells, *Early Writings in Science and Science Fiction by H. G. Wells*, ed. Robert Philmus and David Y. Hughes (Berkeley: U of California P, 1975), 151.

⁶ Brett Davidson, 'Wells, the Artilleryman and the Intersection on Putney Hill', in *The Wellsian: Selected Essays on H. G. Wells*, ed. John S. Partington (Haren: Equilibris, 2003), 90.

⁷ Frank McConnell, *The Science Fiction of H. G. Wells* (New York: Oxford UP, 1981), 130.

⁸ Michael Draper, *H. G. Wells* (New York: St. Martin's, 1988), 52. See also Brian Aldiss, Introduction to H. G. Wells, *The War of the Worlds*, ed. Patrick Parrinder (London: Penguin, 2005), xxi-xxii; Keith Williams, 'Alien Gaze: Postcolonial Vision in *The War of the Worlds*', in *H. G. Wells: Interdisciplinary Essays*, ed. Steven McLean (Newcastle: Cambridge Scholars, 2008), 60-1, n. 70-1.

the musculature dwindles'.⁹ While this description provides the basic 'octopuslike' outline of exaggerated head and hands, nothing in it necessitates huge eyes or leathery skin or tentacle-like fingers.¹⁰

Beyond the literal vision of humanity's future anatomy, scholars have argued that such octopoid morphology resonates across a number of symbolic registers, reading it, for example, as an emblem of the Martian's misguided dualism, as David Evans and Christopher Keep contend, or as an astute commentary on prosthetic technology, as Joanne Wood argues, or as a horrific example of degeneration, as Roger Luckhurst suggests, in which the 'elevation of mind over body produces a kind of abject embodiment'.¹¹ However, none of these explanations, insightful as they are, accounts for the precise details that link the Martians and the Sea Raiders – or that make them so repulsive.

Wells's ability to send shivers up the spine has long been acknowledged. Suvin rightly credits him with 'masterfully translat[ing] some of man's oldest terrors [...] into an evolutionary perspective', that is to say, aligning humanity's fears with increased knowledge of biology and physiology.¹² However, Wells's Martians and Sea Raiders were not simply the result of an abstract exercise in evolutionary projection. They were also shaped by the late-nineteenth-century fascination with the octopus and other cephalopods, sparked initially by Victor Hugo's terrifying devil-fish in his 1866 Les Travailleurs de la Mer, and subsequently intensified by advances in zoological science, in particular the discovery of giant squids that occurred in the 1870s and 1880s. Such discoveries created a chilling narrative of mythological monsters come to life. Wells capitalized on the discourses of monstrosity that emerged, cannily conflating the age-old nightmares of Scylla, hydras, gorgons, kraken (and their more recent iterations in Hugo and Verne) with the flesh and blood creatures of current scientific investigation—creatures 'so exceedingly ugly as to be unusually attractive' as one naturalist put it.¹³ The power of Wells's aliens resides as much in the plausibility of their horrible bodies, and the familiarity his readers would have

¹¹ David H. Evans, 'Alien Corn: *The War of the Worlds, Independence Day*, and the Limits of the Global Imagination', *Dalhousie Review*, 81.1 (2001), 7-23; Christopher Keep, 'H. G. Wells and the End of the Body', *Victorian Review*, 23.2 (1997), 232-43; Joanne A. Wood, 'Counter-Evolution: The Prosthetics of Early Modernist Form', *ELH*, 66.2 (1999), 489-510; Roger Luckhurst, *Science Fiction* (Cambridge: Polity, 2005), 40.

⁹ H. G. Wells, 'Of a Book Unwritten' in *Certain Personal Matters: A Collection of Material, Mainly Autobiographical* (London: Lawrence and Bullen, 1898), 164. The essay was originally published in 1893 in the *Pall Mall Gazette* under the title 'The Man of the Year Million'.

¹⁰ With respect to these details, Robert Philmus is one of the few who has noted that the Martians more closely resemble the Sea Raiders than they do the man of the year million. See Robert M. Philmus, *Into the Unknown: The Evolution of Science Fiction from Francis Godwin to H. G. Wells* (Berkeley: U of California P, 1970), 29-30.

¹² Suvin, 209.

¹³ J. E. Taylor, *The Aquarium: Its Inhabitants, Structure, and Management*, 1876 (Edinburgh: Grant, 1901), 228.

had with their prototypes, as in their hostility to human beings. Within the context of late-Victorian zoology, the Sea Raiders, and by extension, the Martians, must have appeared frighteningly credible to Wells's readers.

Cephalomania in the Late Nineteenth Century

Victorian interest in aquatic life flourished in the mid to late nineteenth century. In his book on the subject, *The Aquarium: Its Inhabitants, Structure, and Management*, first published in 1876, J. E. Taylor noted that, following the example and writings of naturalists such as Phillip Henry Gosse, many amateurs collected tide-pool specimens and attempted to maintain aquaria in their homes. Moreover, public aquaria began to be established, such as the one in the Zoological Gardens in London (opened in 1853 and supplied with Gosse's own collections), as well as others in Surrey and Dublin. As soon as the manufacture of artificial salt water was perfected, public aquaria became a regular feature across Europe, though all were on a relatively small scale until the 1861 opening of the Aquarium in Bois de Bologne, the 'first of those large public aquaria, which have lately grown to such colossal proportions' as Taylor notes.¹⁴ A decade later, the Crystal Palace Aquarium was established, and a year after that the Brighton Aquarium opened, the most ambitious yet in Great Britain.¹⁵

While the writings of Gosse exposed Victorian readers to the many interesting creatures within their reach along the coastline of Great Britain, the popular fascination with the octopus was linked in the minds of many to the 1866 publication of Victor Hugo's *Les Travailleurs de la Mer*, translated into English the same year as *Toilers of the Sea*. Naturalist Henry Lee was to recount the chain of events several years later:

Fishermen have been familiar with this animal from time immemorial; but in modern days, although naturalists have occasionally noted some peculiarities of its structure and habits, public attention was never particularly attracted to it until, within the last few years, Victor Hugo brought it again into notice by the publication of his '*Les Travailleurs de la Mer*'. Since then it has been constantly exhibited in aquaria, and 'Octopus' has become a household word.¹⁶

¹⁴ Ibid., 17.

¹⁵ Ibid., 19.

¹⁶ Henry Lee, *The Octopus; or, The 'Devil-Fish' of Fiction and of Fact* (London: Chapman and Hall, 1875), xv.

Taylor also credits Hugo for piquing the public's curiosity about cephalopods through his 'weird stories' about the 'devil-fish'.¹⁷ In actuality, Hugo's devil-fish was not a fish, but an aggressive species of octopus whose method of killing his victims was particularly gruesome. In a harrowing encounter, the hero of *Toilers of the Sea* is attacked by the *pieuvre* in an ocean cavern and barely escapes with his life. The monster is shown to be as ghastly as it is dangerous; it is '[a] glutinous mass, endowed with a malignant will'.¹⁸ Most horrifying is the fact that the devilfish drinks the blood of its victim:

It is with the sucking apparatus that it attacks. The victim is oppressed by a vacuum drawing at numberless points [. . .]. The muscles swell, the fibres of the body are contorted, the skin cracks under the loathsome oppression, the blood spurts out and mingles horribly with the lymph of the monster, which clings to its victim by innumerable hideous mouths. [. . . The] devil-fish, horrible, sucks your life-blood away. He draws you to him, and into himself; while bound down, glued to the ground, powerless, you feel yourself gradually emptied into this horrible pouch, which is the monster itself.¹⁹

With the publication of Hugo's novel, the octopus became the subject of great popular interest. '[I]n the state of public feeling then existing, an aquarium without an octopus was like a plum-pudding without plums', recalls Lee, who got his first glimpse of a captive octopus in the Boulogne Aquarium in 1867. He recollects: 'It was the prominent subject of conversation at the *tables d'hôte* of all the hotels there, and almost the first words addressed to a new-comer were, "Have you seen the devil-fish?"'.²⁰ In 1871, the Crystal Palace Aquarium was the first in Great Britain to house an octopus, which became an immediate sensation. As Taylor relates,

Victor Hugo, in his 'Toilers of the Sea', had prepared the public mind [. . .]; and accordingly the first specimen of a living octopus in the Crystal Palace Aquarium had to bear the uninterrupted gaze of lookers-on for weeks. It sat for its

¹⁹ Hugo, 293-4. The term 'devil-fish' became synonymous with octopus or cephalopod in popular usage. In today's scientific parlance, 'cephalopod' refers to a class of marine invertebrates that is comprised of the octopus, squid, cuttlefish, and chambered nautilus. However, Wells and his contemporaries often used these terms interchangeably, along with others, such as devil-fish, calamari, and sepia.

¹⁷ Taylor, 228.

¹⁸ Victor Hugo, *Toilers of the Sea*, trans. W. Moy Thomas (London: Routledge, 1866), 293.

²⁰ Lee, 7.

portrait in the illustrated papers, and had all its points noted down by newspaper correspondents with the same faithful detail as if they were those of prize cattle at the Agricultural Show.²¹

The Brighton Aquarium opened in 1872, and that same year obtained an octopus 'caught in a lobster-pot at Eastbourne', which was equally popular.²²

Lee became Naturalist for the Brighton Aquarium in 1873, and in this position, he had 'excellent opportunities of studying the habits and movements of living cephalopods'.²³ He periodically wrote short articles on these and other denizens of the Aquarium which were published in Land and Water and elsewhere.²⁴ As a result, Lee received many appeals for further information about the 'devil-fish'. 'It is much to be hoped', one reader wrote, 'that as time and observation serve, Mr. Lee will give to the public a paper devoted to a close scientific examination of Victor Hugo's description of the devil-fish, so as to settle to the minutest points wherein it is true to nature, and wherein the novelist has deviated from the severity of fact'.²⁵ In response to such widespread curiosity, Lee collected and expanded his articles for publication as a book. Entitled The Octopus; or, The 'Devil-fish' of Fiction and of Fact, the text engages Hugo's depiction directly, as readers had requested, as well as providing other facts and anecdotes about cephalopods. In his assessment of the accuracy of Hugo's devilfish, Lee grants that Hugo shows himself to be 'tolerably well acquainted with its habits, mode of attack, and external form'.²⁶ However, in other respects, particularly in terms of the manner of consumption and digestion, Hugo 'releases his ardent imagination from the few restraining ties by which it was bound to reality'.²⁷ So famous were the features of the devil-fish that it often served as a touchstone for what not to believe about the octopus. Writing several years later, Yale zoologist A. E. Verrill felt it necessary to repudiate Hugo's creation at the beginning of his definitive work on cephalopods of the North Atlantic: 'The description of the "Poulpe" or devil-fish by Victor Hugo [...] with which so many readers have recently become familiar, is guite as fabulous and unreal as any of the earlier accounts, and even more bizarre. His description represents no real animal whatever.'28

²¹ Taylor, 228.

²² Lee, 7.

²³ Ibid., viii.

²⁴ Ibid., vii.

²⁵ Qtd. in Lee, 10.

²⁶ Lee, 19.

²⁷ Ibid., 30.

²⁸ A. E. Verrill, 'The Cephalopods of the North-eastern Coast of America', *Transactions of the Connecticut Academy of Arts and Sciences*, 5 (1878-82), n.177.

That Wells knew Hugo's devil-fish is clear from a direct reference in an 1894 essay, 'The Extinction of Man'. Here Wells rehearses several scenarios that could lead to humanity's extinction, one of which involves 'a new and larger variety of Octopus' that 'might so easily acquire a preferential taste for human nutriment' and begin 'picking the sailors off a stranded ship' and eventually 'batten[ing] on [seaside] excursionists'.²⁹ At the first mention of the octopus, Wells reminds his readers that this creature is 'sacred to Victor Hugo'.³⁰ Whether or not he consciously modeled his creations after Hugo, Wells was certainly drawing from the discourse of monstrosity to which Hugo so memorably contributed. Details of devil-fish morphology are echoed in the Sea Raiders and Martians. The arms of the devil-fish are 'slimy bands' which are 'supple as leather'.³¹ The outside skin is 'gravish [...] a dull, earthy hue [...] [having] an aspect like gangrened or scabrous flesh'.³² The slimy, leathery, and diseased quality of the skin can be found in both the Sea Raiders and the Martians, as seen in the epigraphs to this article. The Sea Raiders' skin has a 'glistening texture [...] like shiny leather'; the Martian skin 'glistened like wet leather [... with] something fungoid in the oily brown skin'.³³ Parallels between the devil-fish and the Martians go even further. Both lack the usual internal organs. The devil-fish is an empty 'pouch': 'It is soft and flabby; a skin with nothing inside. Its eight tentacles may be turned inside out like the fingers of a glove'.³⁴ The Martians are as close to pouches as physiologically possible; while they have brains and lungs, they lack the 'all the complex apparatus of digestion, which makes up the bulk of our bodies'-they are 'heads-merely heads' without 'entrails'.³⁵ In addition, both monsters subsist on blood. The devilfish is the 'sea vampire', nicknamed 'Bloodsucker' by 'English sailors' because it drinks its victims alive.³⁶ Likewise, the Martians siphon 'into their own veins' the 'fresh, living blood' of a 'still living animal, in most cases [...] a human being'.³⁷ In both cases, the victims experience terrible pain as they die a slow, torturous death. Finally, both monsters evoke deep existential angst. The narrator of Toilers of the Sea states that devil-fish undermine confidence in God's benevolence: 'They are hideous surprises. [. . .] We deny the possibility of the vampire, and the cephaloptera appears. Their swarming is a certainty which disconcerts our confidence. [...] Every malignant creature, like every perverted intelligence, is a sphinx. A terrible sphinx propounding a terrible riddle; the riddle of the existence

³⁶ Hugo, 290, 292.

²⁹ H. G. Wells, 'The Extinction of Man' in *Certain Personal Matters: A Collection of Material, Mainly Autobiographical* (London: Lawrence and Bullen, 1898), 175-76. The essay was slightly expanded from the original 1894 version, which was published in the *Pall Mall Gazette*.

³⁰ Ibid., 175.

³¹ Hugo, 289, 288.

³² Ibid., 291.

³³ 'Sea Raiders', 142, War of the Worlds, 21-22

³⁴ Hugo, 293.

 $^{^{35}}_{26}$ War of the Worlds, 125

³⁷ War of the Worlds, 125

of Evil'.³⁸ Similarly, in Wells's novel the Martian invasion is the catalyst for the Curate's crisis of faith: "Why are these things permitted? What sins have we done?" he cries as he begins his slow descent into insanity.³⁹ Patrick Parrinder has argued that the narrator too has a crisis that leads him to revert from a 'post-Christian humanist' to an 'outmoded Christian fundamentalist': 'at the height of the invasion crisis [the narrator] adopts the superstitious belief that everything is part of a providential scheme' (though he seems somewhat 'ashamed of it' later on).⁴⁰ As McConnell aptly reminds us, the monster embodies '*what you fear most*, what your culture and environment have taught you is the worst thing that could happen to you'.⁴¹ Understandably, such primal fears raise profound metaphysical questions.

One might be tempted to stop here in the search for precedents for the Martians and Sea Raiders. But in reality the saga of the cephalopod continued. The 1870s saw the discovery of a real monster which quite overshadowed the poor devil-fish. As the *New York Times* proclaimed in December 1873: 'Victor Hugo's terrible devil-fish, of which he gives so thrilling a description in the *Toilers of the Sea*, was but an infant in comparison with the gigantic cuttle-fish, whose recent appearance in the waters off Newfoundland is [. . .] "not a dream of the fancy, but sober reality"'.⁴² Lee devotes his final chapter to these newly discovered giant squid, concluding 'The existence of gigantic cephalopods is no longer an open question. I, now, more than ever, appreciate the value of the adage: "Truth is stranger than fiction"'.⁴³ An examination of the giant squid will show that they contributed their share to Wells's creation of his bug-eyed monsters.

Truth Stranger than Fiction

The belief in giant squids goes back to antiquity. Aristotle includes them in his extensive zoological treatise *Historia Animalium* (350 BCE).⁴⁴ Pliny the Elder's *Naturalis Historia* (77 CE) contains an account of a giant squid-like creature who raided fish stored in open salt-water reservoirs.⁴⁵ Some have argued that mythological creatures, such as the Hydra and Scylla with their multiple snake-like appendages, are colourfully embroidered references to giant

³⁸ Hugo, 294, 295-6.

³⁹ War of the Worlds, 70

⁴⁰ Patrick Parrinder, 'How Far Can We Trust the Narrator of *The War of the Worlds*?',

Foundation, 77 (Autumn 1999), 23.

⁴¹ McConnell, 135, original emphasis.

⁴² 'A Sea Monster: Description of a Gigantic Newfoundland Cuttle-fish', *The New York Times*, 8 Dec. 1873, 2.

⁴³ Lee, 114.

⁴⁴ Aristotle. *Historia Animalium* (350 BCE), trans. A. L. Peck, vol. 2 (London: Heinemann, 1970), 2-15; Book IV.1.

⁴⁵ Pliny the Elder, *The Natural History of Pliny* (77 CE), trans. John Bostock and H. T. Riley, vol. 2 (London: George Bell, 1900), Book 9.

cephalopods. Down through the centuries, the factual and fanciful have intertwined, resulting in continued uncertainty about the reality of the giant squid. Linnaeus, for example, included it in the first edition of his Systema Naturae (1735) but omitted it in subsequent editions.⁴⁶ One influential source for such admixtures of fact and fiction was a history of northern European peoples written by Scandinavian Olaus Magnus (1555), in which he recounted stories from eyewitnesses about 'monstrous fish' sighted along the coasts of Norway. Magnus's descriptions, illustrations, and maps were frequently reproduced in the following centuries and greatly influenced the emerging field of zoology.⁴⁷ In 1755, another Scandinavian, Bishop Erik Pontoppidan, added to the lore when he coined the term 'krake' or 'kraken' to refer to the enormous monsters featured in 'old narratives and traditions of floating islands and sea monsters'.⁴⁸ Pontoppidan was not deliberately untruthful, just overly credulous, in Lee's opinion, but others were not so scrupulous. Denys de Montfort, a Frenchman writing at the turn of the 19th century, spread stories of a gigantic octopus, so large it could completely overpower a full-sized ship. Lee notes that de Montfort went so far as to propound the ridiculous notion that the British lost several battle ships in the West Indies in 1782 due to 'colossal cuttle-fishes, and not by a gale or any ordinary casualty'.⁴⁹ In all such works, there seemed to be a kernel of truth based on anecdotal evidence from fishermen, whalers, and other sea-farers, who told of spotting squid on the open seas or finding their remains in the stomachs of slaughtered sperm whales or cast upon the shore. Unfortunately, because the details that accompanied accounts like de Montfort's were often so outrageous, most scientists hesitated to give credence to the reports. Unsatisfied with hearsay, they insisted on the tangible evidence of a physical specimen.

Some evidence already existed, but it was hidden or neglected. Japetus Steenstrup (1813-97), a Danish scientist, took it upon himself to discover the truth. He pored over old records and rummaged around in museum storerooms across Europe for specimens. As the evidence accumulated, Steenstrup concluded that the giant cephalopod was indeed a reality, but his fellow naturalists remained skeptical. Meanwhile, in 1861, a French military vessel encountered a huge, multi-armed creature near the Canary Islands that the crew desperately tried to capture but succeeded only in obtaining a small 44-pound 'fragment' before it escaped. Nonetheless, there were multiple credible witnesses to the event, and the commander Lieutenant Frédéric-Marie Bouyer duly filed a report, which was

⁴⁶ 'Linnaeus, the great naturalist, [...] state[s] that "on second thoughts", he considered it better to omit the great monster from a second edition of his "Systema Naturae". F. Whymper, *The Fisheries of the World: An Illustrated and Descriptive Record of the International Fisheries Exhibition, 1883* (London: Cassell, 1883), 319.

⁴⁷ Richard Ellis, *The Search for the Giant Squid* (New York: Lyons, 1998), 12.

⁴⁸ Lee, 100. Tennyson's 1830 sonnet was inspired by Pontoppidan's kraken, and Herman Melville mentions Pontoppidan in a chapter entitled 'Squid' in *Moby Dick*.

⁴⁹ Ibid., 103.

eventually read at the Academy of Sciences in Paris. In the final analysis, however, the physical specimen was too small to be conclusive, and doubts remained.⁵⁰

The demand for evidence was dramatically and decisively fulfilled in the 1870s. During that decade and into the 1880s, there was a sudden influx of dead and dying giant squid in the coastal waters and on the shores of Newfoundland and to a lesser extent in New Zealand, Scandinavia, and Ireland. Unfortunately many of the specimens were not preserved because they were cut up for dog food or bait by the fishermen who found them. However, the Rev. Moses Harvey, an amateur naturalist living in St. John's, Newfoundland, realized the significance of these finds to the scientific community and managed to obtain some of the remains before they were destroyed. His most famous acquisition was of an almost complete squid, which he preserved in brine and photographed in his sponge-bath. Harvey had the sense to give the body to a trained scientist, A. E. Verrill, professor of zoology at Yale, who made these creatures the focus of his research during the 1870s, producing some thirty articles on the new genus Architeuthis, complete with his own meticulous drawings (one of which is shown in Figure 1). Having never observed healthy Architeuthis in its natural habitat, scientists could only speculate as to the cause of its sudden increase. Verrill proposed that perhaps they were 'weakened' by disease or parasites or the reproductive cycle and hence drifted closer to land.⁵¹ After the 1880s, the number of encounters with giant squid sharply declined. Throughout the twentieth century and into the twenty-first additional specimens have been collected, but the abundance of the 1870s has never been repeated.

'Something so exceedingly ugly as to be unusually attractive'

As a result of the painstaking research of Verrill and others, a picture of the giant squid began to emerge (though many mysteries remain to this day). While not as huge and horrible as the wild imaginings of earlier writers, *Architeuthis* was impressive and unsettling enough. Like their smaller relatives, giant squid are decapods, with eight arms and two tentacles; in lay parlance we are apt (inaccurately) to call all of these appendages tentacles (certainly Wells does). Much longer and thinner than the arms, the tentacles are shaped differently, terminating in a club-like 'foot' with suckers on it (see Figure 1). It is thought that the tentacles are used to scavenge for and capture prey, drawing it into the circle of arms and towards the mouth. What the lay person might assume to be the head of a squid or an octopus is actually its body. The head is located *between* the body and

⁵⁰ Lee, 109. The Canary Island sighting provides the backdrop for Jules Verne's depiction of the battle between the Nautilus and a giant cephalopod in *Twenty Thousand Leagues Under the Sea* (1871). Interestingly enough, neither Lee nor Taylor mention Verne's novel at all, though certainly they must have known it.

⁵¹ A. E. Verrill, 'Giant Squid (Architeuthis) Abundant in 1875, at the Grand Banks', *American Journal of Science*, 21.128 (1881), 252.

the arms, an arrangement quite counter-intuitive to a human observer. As for length and weight, the giant squid can be as long as 50-60 feet and weigh as much as a ton. The United States Court at the 1883 International Fisheries Exhibition in London displayed a scale model of the giant squid, highlighting the enormous size (see Figure 2). At the time Wells was writing, the largest known specimen was one found on the beach at Lyall Bay in New Zealand in 1887. It measured 57 feet total; its body and head were about 8 feet long, and its tentacles were 49 feet 3 inches.

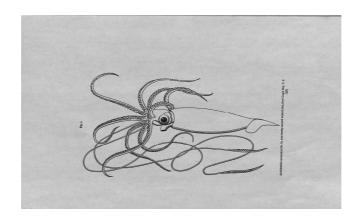


Figure 1: Drawing of Architeuthis monachus by A. E. Verrill.⁵²

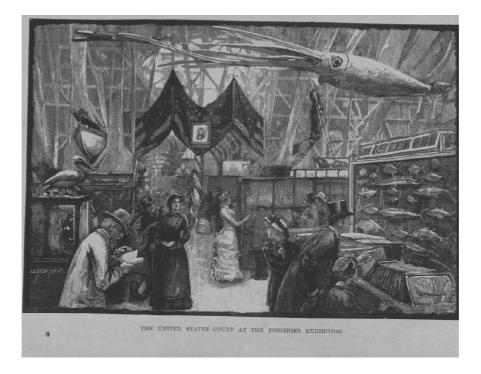


Figure 2: The United States Court at the 1883 International Fisheries Exhibition in London.⁵³

⁵² A. E. Verrill, 'The Colossal Cephalopods of the North Atlantic', *The American Naturalist*, 9 (1875), 23.

The discoveries of giant squid were trumpeted in the popular press, as well as in numerous scientific papers. A notice appeared in *Nature* early in 1874.⁵⁴ Lee gives a thorough account in his book of developments through 1875, and Taylor refers to the 'portions of gigantic specimens [that] have been found off the coasts of Newfoundland, and described in the scientific journals'.⁵⁵ Wells refers to these discoveries more or less directly in several of his texts. Already mentioned is the speculative scenario found in 'The Extinction of Man': 'Suppose some day a specimen of a new species is caught off the coast of Kent. It excites remark at a Royal Society soirée, engenders a Science Note or so, "A Huge Octopus!" and in the next year or so three or four other specimens come to hand and the thing becomes familiar'.⁵⁶ This brief sketch exactly parallels the sequence of squid discoveries, and it also foreshadows the much more detailed plot of 'The Sea Raiders', discussed below. Wells's story 'In the Abyss' (1896) alludes to the 'big cuttle-fish people knew to exist in the middle waters, the kind of things they find half digested in whales at times, or floating dead and rotten and half eaten by fish'.⁵⁷ In the opening of 'The Sea Raiders', Wells alludes to a similar phenomena, this time almost certainly based on a recent account in *Nature* of a dying sperm whale that had regurgitated 'several large cephalopods', and, when its stomach was later dissected, had yielded approximately 100 kilograms of 'the partially digested debris of cephalopods, all of them of enormous size' and of an unknown species.⁵⁸ The narrator of 'The Sea Raiders' takes the same scientific stance and relates:

In no department of zoological science, indeed, are we quite so much in the dark as with regard to the deep-sea cephalopods. A mere accident, for instance, it was that led to the Prince of Monaco's discovery of nearly a dozen new forms in the summer of 1895 [...]. It chanced that a cachalot was killed off the coast of Terceira by some sperm whalers, and in its last struggles charged almost to the Prince's yacht, [...] and died within twenty yards of its rudder. And in its agony it threw up a number of large objects [...]. [T]hese specimens were whole cephalopods and fragments of cephalopods, some of gigantic proportions, and almost all of them unknown to science!⁵⁹

⁵³ Originally published in Whymper; image used with permission of the British Library.

⁵⁴ 'Gigantic Cephalopoda', *Nature*, 9 (Feb. 26, 1874), 332-3.

⁵⁵ Taylor, 229.

⁵⁶ Wells, 'Extinction', 175.

⁵⁷ H. G. Wells, 'In the Abyss' (1896) in *Selected Short Stories* (New York: Penguin, 1979), 231.

⁵⁸ J. Y. Buchanan, 'The Sperm Whale and its Food', *Nature*, 53.1367 (Jan. 9, 1896), 223-5.

⁵⁹ 'The Sea Raiders', 140

These allusions demonstrate that Wells was conversant with recent developments in marine biology. His long and rewarding association with *Nature*, in particular, is well known, and was one of the avenues through which he kept up with scientific developments.⁶⁰ Beyond discussions of such discoveries in print, it is highly likely that Wells saw live cephalopods at the Brighton and other aquaria. Whatever his sources, a number of the details of the Sea Raiders and the Martians could have been informed by contemporary accounts of these discoveries.

As mentioned above, Hugo painted an accurate picture of the outward form of the devil-fish. Both his descriptions and Wells's accord with the features squid typically share with other cephalopods in terms of colour and texture. Colour is variable since embedded chromatophores allow squid to change colours and patterns at the blink of an eye. The degradation of most giant squid specimens due to exposure, decomposition, and mutilation would also affect colour. Nonetheless, where skin colour has not deteriorated, the range in Architeuthis seems to go from gray to red to brown to purple and all the combinations in between. Describing one of his specimens, Verrill writes: the 'color of the body and arms, where preserved, is pale reddish, with thickly scattered small spots of brownish red'.⁶¹ Another specimen had a colouration 'consisting of small purplish brown chromatophores, more or less thickly scattered over the surface. The back had a bleached appearance, as if the creature had laid upon the shore or floated at the surface [...] for some time after death'.⁶² Wells's monsters, described as 'brown' and 'grayish' fit within the normal colour palette of the giant squid (as do Hugo's). More striking than the colour is the skin texture – leathery, shiny, wet, fungoid, scabrous. These features could plausibly have originated from the ability of chromatophores to alter the squid's skin texture, 'erecting bumps or nodules on the skin', which Wells might have translated into the leathery look of his creations.⁶³ Harvey comments that an arm specimen is 'tough and pliant as leather', and Verrill describes the arms as 'very strong and elastic'.⁶⁴ Such descriptors are commonplace in the accounts of the giant squid.

Some distinctive characteristics of Wells's octopoid aliens, namely size, mouth, and eyes, are featured prominently in reports about giant squids. Size is always indicated, of course; adjectives such as 'colossal', 'gigantic', 'huge',

⁶⁰ See the recently published *H. G. Wells in Nature, 1893-1846: A Reception Reader*, ed. John S. Partington (London: Peter Lang, 2008). In his introduction, Partington writes: "Between 1893 and 1944, [Wells] published twenty-five separate items in the journal, be they reviews, essays or letters to the editor, while his works received fifty-three reviews during the same period'. Partington cites several reasons for Wells's close connection with *Nature*, one of which was his long-time friendship with R. A. Gregory who edited the journal from 1897 to 1939.

⁶¹ Verrill, 'Cephalopods of the North-eastern Coast of America', 204.

⁶² Ibid., 424.

⁶³ Ellis, 44.

⁶⁴ Moses Harvey, 'Gigantic Cuttlefishes in Newfoundland', *The Annals and Magazine of Natural History*, 13 (1874), 68. Verrill, 'Colossal Cephalopods', 27.

'immense' are ubiquitous in the literature, along with meticulous measurements of various parts. Wells often created monsters by simple enlargement (the wasps and rats in 'The Food of the Gods' for example), but the giant squid came ready made, so to speak. Wells's Martians and cephalopods are within the range of Architeuthis, though not as big as the largest specimens. The mouth of the squid, partially because of its size, often receives attention in the accounts as well. It resembles a beak, described thus by Verrill: 'these jaws constitute a powerful beak, looking something like that of a parrot or hawk, except that the upper jaw shuts into the lower, instead of the reverse, as in birds⁶⁵ Descriptions of the mouth are frequently much more sensational that Verrill's. Zoologist W. Saville Kent depicts the giant squid 'exposing to view, and opening, its parrot-like beak with an apparently hostile and malignant purpose'.⁶⁶ The same encounter is described thus by Harvey: '[the squid] reared a parrot-like beak, [...] "as big as a six-gallon keg", with which it struck the bottom of the boat violently'.⁶⁷ While Wells's monsters do not have bird beaks per se, their mouths resemble them. The Martians have a 'Vshaped [. . .] fleshy beak'; the Sea Raiders have a kind of outgrowth (an 'excrescence') with a 'downward bend', which suggests the shape of a beak.

One of the most remarkable aspects of the giant squid are its enormous eyes. They can be the size of volleyballs; in 1875, a squid killed near Boffin Island off the Connemara coast of Ireland had eyes that were 15 inches in diameter.⁶⁸ The eyes are often invested with a 'fierce' or malicious expression. ⁶⁹ Kent gives a description that could hardly be distinguished from Wells's fictive renditions: '[The monster had] an intelligent face', Kent writes, 'with a pair of large prominent ghastly eyes, which seemed to gleam with intense ferocity'.⁷⁰ Wells draws from the same pool of descriptors as Kent: the eyes of H. ferox are 'large' and 'intelligent'; they 'regard' humans with 'evil interest'; the Martian's 'immense eyes' look at the narrator 'steadfastly' with 'extraordinary intensity'.

As telling as the similarities are between Wells's monsters and the giant squid, the most striking parallel is the plot of 'The Sea Raiders', which dramatizes and exaggerates the real events of those earlier decades. The story concerns the sudden appearance of Haploteuthis ferox on the coast of Cornwall and Devon,

⁶⁶ W. Saville Kent, 'Note on a Gigantic Cephalopod from Conception Bay, Newfoundland', Proceedings of the Scientific Meetings of the Zoological Society of London (1874), 178. Kent was the Curator of the Brighton Aquarium from late 1872 until he resigned mid-1873 apparently due to 'difficulties [...] in the management' of the Aquarium. See Nature, 8 (July 3, 1873), 191. Kent was replaced by Lee. (Kent was also the brother of Constance Kent, the famous murderess in the Road-Hill House case that achieved such notoriety in the early 1860s.) ⁶⁷ Harvey, 67.

⁶⁵ Verrill, 'Colossal Cephalopods', 29.

⁶⁸ Thomas O'Connor, 'Capture of an Enormous Cuttle-fish off Boffin Island, on the Coast of Connemara', The Zoologist, 10 (1875), 4503.

⁶⁹ Verrill, 'Colossal Cephalopods', 36.

⁷⁰ Kent, 178.

where for several months they terrorize the locals before vanishing mysteriously.⁷¹ Told in a journalistic style and set in the year it was published (1896), the narrative centers on the Sea Raiders' 'most serious aggression', seen through the eyes of a Mr. Fison, retired tea-dealer on holiday, as he first discovers the monsters, then barely escapes from them only to stand by helplessly as they drag his compatriot Hill, plus a boat-load of excursionists, beneath the waves to be devoured (149). The story ends with a brief account of subsequent sightings and the Sea Raiders' inexplicable disappearance.

The central event in Wells's plot most closely resembles the Conception Bay discovery, an event that was told and retold numerous times in print. The summary given by Kent is representative: two fishermen in a small boat see a 'dark shapeless mass' in the water and prod it with a 'boat-hook':

Upon receiving the shock the dark heap became suddenly animated, and [...] suddenly shot out from around its head several long arms of corpse-like fleshiness [...]. Only two of these reached the craft, and, owing to their length, went completely over and beyond it. Seizing his hachet [sic] with a desperate effort, one of the men succeeded in severing these limbs with a single well-delivered blow; and the creature [...] immediately disappeared beneath the waters.⁷²

The battle with the squid in 'The Sea Raiders' has many of the same elements—a small boat with men in it, a squid whose arms wrap around the boat, weapons such as oars, a boat-hook, and a 'clasp-knife':

One [squid] came up boldly to the side of the boat, and clinging to this with three of its sucker-set tentacles, threw four others over the gunwale [...]. Mr Fison at once caught up the boat-hook, and, jabbing furiously at the soft tentacles, forced it to desist. [...] [The boatman] was using his oar to resist a similar attack on the other side of the boat. But the tentacles on either side at once relaxed their hold, slid out of sight, and splashed into the water.⁷³

⁷¹ Ellis translates *Haploteuthis ferox* as 'one fierce squid', 170.

⁷² Kent, 178-9. For two other slightly different accounts of the Conception Bay discovery, see Alexander Murray, 'Capture of a Gigantic Squid at Newfoundland', *The American Naturalist*, 8.2 (1874), 120-3; and M[oses] Harvey, 'Gigantic Cuttlefishes in Newfoundland', *The Annals and Magazine of Natural History*, 13 (1874), 67-9.

⁷³ 'The Sea Raiders', 145.

Unlike the squid in Kent's account, these do not give up so easily and they immediately resume the attack on the boat with deadly results:

But the oars had scarcely dropped into the water before dark, tapering, serpentine ropes had bound them, and were about the rudder; and creeping up the sides of the boat with a looping motion came the suckers again. [...]

Then Hill slipped and fell with his ribs across the side [. . .]. [I]n another moment fresh tentacles had whipped about his waist and neck, and after a brief, convulsive struggle, in which the boat was nearly capsized, Hill was lugged overboard.⁷⁴

What follows is the prolonged and gruesome death of Hill, which is pure fiction. No deaths occurred in the encounters with giant squid.

The War of the Worlds has the same basic plot as 'The Sea Raiders' and 'The Extinction of Man' – invasion by hostile species with deadly results. Early in the novel, one of the soldiers associates the Martians with cephalopods. 'Octopuses, [. . .] that's what I calls 'em,' he jokes upon hearing the narrator describe the aliens. 'Talk about fishers of men – fighters of fish it is this time!'.⁷⁵ Despite the bravado, no direct 'hand-to-tentacle' combat occurs between humans and Martians. In another respect, however, the Martians clearly parallel the giant squid—that is, in their fate after death. As already mentioned, few squid specimens escaped some kind of damage, and many did not survive at all, as can be seen in the following representative excerpts from Verrill's comprehensive 'Cephalopods of the North-eastern Coast of America':

[The Fortune Bay specimen] had been mutilated by the removal of the tail by the fishermen, who finally cut it up as food for their numerous dogs [. . .].⁷⁶ Although somewhat mutilated, and not in a very good state of preservation when received, [the Catalina specimen] is of great interest, being, without doubt, the largest and best specimen ever preserved.⁷⁷ [. . .] When first discovered by his informant [the Hammer Cove specimen] had already been devoured by foxes and sea

⁷⁴ Ibid., 145, 147.

⁷⁵ War of the Worlds, 39

⁷⁶ Verrill, 'Cephalopods of the North-eastern Coast of America', 188.

⁷⁷ Ibid., 189-90.

birds.⁷⁸ [. . .] [The Lance Cove specimen] was subsequently carried off by the tide, and no portion was secured.⁷⁹

Like the squid, many of the Martians are degraded by putrefaction, not to mention being half eaten by dogs and birds. One of the first indications that the Martians have been defeated comes when the narrator spots 'a multitude of black birds [...] circling and clustering about the hood [of a Martian machine]'.⁸⁰ When he gets close enough, he sees that '[o]ut of the hood hung lank shreds of brown, at which the hungry birds pecked and tore'.⁸¹ The damage done by scavengers makes subsequent study of Martian physiology difficult: 'The results of an anatomical examination of the Martians, so far as the prowling dogs had left such an examination possible, I have already given'.⁸² What few specimens remain, are

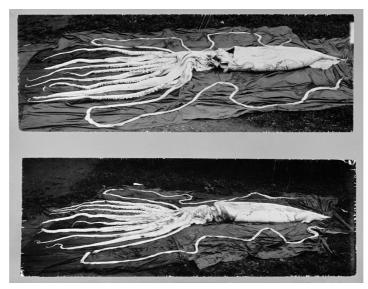


Figure 3: Two specimens of Architeuthis Dux, found just outside the Trondheimsfjord in 1896 and donated to the Museum of Natural History and Archaeology, Norwegian University of Science and Technology.⁸³

preserved, as were the squid, in 'spirits' and housed in universities and museums of natural history: 'everyone is familiar with the magnificent and almost complete [Martian] specimen in spirits at the Natural History Museum'.⁸⁴ As with the squid,

⁷⁸ Ibid., 190.

⁷⁹ Ibid., 191.

⁸⁰ War of the Worlds, 167

⁸¹ Ibid., 168.

⁸² Ibid., 178.

⁸³ Used with permission of the Museum of Natural History and Archaeology, Norwegian University of Science and Technology, Trondheim, Norway.

⁸⁴ Ibid., 178

'countless drawings' are made of the Martians⁸⁵. Perhaps the most evocative similarity can be seen in the description of the dead Martians: 'stark and silent and laid in a row, were the Martians – *dead!* – as slain by the putrefactive and disease bacteria against which their systems were unprepared [. . .]. A multitude of dogs, I could hear, fought over the bodies' (original emphasis).⁸⁶ The image of putrefying bodies disfigured by scavengers matches remarkably well with Verrill's descriptions and photographs of dead squid available in Wells's time (see Figure 3).

Conclusion: 'It looks like an alien'

Wells's bug-eyed, octopoid monsters have become so identified with extraterrestrials that people now compare cephalopods to aliens, as in the above remark made by a mother to her child in reference to a female octopus in the Seattle Aquarium.⁸⁷ The comment implies that the child has a well established sense of what constitutes an alien, perhaps more so than she does an octopus. A recent NOVA program on cuttlefish relies heavily on the trope of the cephalopod as alien; the show begins with the narrator saying 'Imagine an alien that can float through space, with a giant brain shaped like a doughnut, eight arms growing out of its head, and three hearts pumping blue blood. This alien lives right here on Earth'. Later in the program, Jesse Purdy, a comparative psychologist at Southwestern University in Texas, remarks 'We are testing an animal that's very alien. I mean it's as close, perhaps, as we're going to get to studying an animal on another planet'.⁸⁸ The experiments that Purdy and others have conducted suggest that cuttlefish are as intelligent as some vertebrates, which lends credence to Wells's choice of octopoid physiology as the vehicle for his advanced species.

Wells's creation of the Martians and Sea Raiders was a brilliant stroke that synthesized mythical monsters, Hugo's devil-fish, and giant squid. Wells took advantage of his knowledge of zoology to imagine truly alien, yet believable intelligent life forms. The plausibility of Wells's octopoid aliens lends urgency to the warning which drives *The War of the Worlds* and 'The Sea Raiders': that humanity's status as lord of creation is by no means secure. As Wells writes pointedly in 'The Extinction of Man', to their peril do human beings arrogantly assume they will always rule the earth: 'Even now, for all we can tell, the coming terror may be crouching for its spring and the fall of humanity be at hand'.⁸⁹ Insofar as this scenario conjures up the devil-fish and echoes the real events in Newfoundland it gains credibility, which helps foster that sense of precariousness

⁸⁵ Ibid., 178.

⁸⁶ Ibid., 168-9.

⁸⁷ Overheard by the author at the octopus exhibit in the Seattle Aquarium, February 2006.

⁸⁸ Gisela Kaufmann and Carsten Orlt, 'Cuttlefish: The Brainy Bunch', aired as 'Kings of

Camouflage' on PBS, April 3, 2007, <u>http://www.pbs.org/wgbh/nova/transcripts/3404_camo.html</u> (accessed Sept. 3, 2008).

⁸⁹ Wells, 'Extinction of Man', 179.

Wells intends to convey. By evoking these cephalopods in 'The Sea Raiders' and *The War of the Worlds*, Wells reminds his readers that supposedly mythical monsters have turned out to be all too real.