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Until relatively recently, Richard Owen has languished largely in obscurity, his significance in the history of science reduced to that of Darwin's 'nemesis'. As Kevin Padian observes, though, 'a new wave of scholarship … has fundamentally reappraised Owen's life and work'.[1] Over the last twenty years, these revisionist historians, including Adrian Desmond and Nicolaas Rupke, have foregrounded the tremendous depth and scope of Owen's scientific accomplishments, particularly with regard to his work in comparative anatomy. However, Owen's cultural significance outside the scientific world (apart from his lifelong interest in museums, and especially his indispensable role in the creation of a separate Natural History museum in Kensington) remains less well understood. Although Owen's commentators often acknowledge that he counted among his friends and acquaintances writers like Thomas Carlyle, Charles Dickens, George Eliot, and Alfred, Lord Tennyson, very little of substance has been written about these relationships. Owen's friendship with Thomas Carlyle lasted nearly forty years (from 1842 until Carlyle's death in 1881), but their relationship has received very little attention, particularly from Carlyle scholars. Biographers of Carlyle rarely make even a passing reference to this relationship; Froude devotes only a paragraph or two, while Kaplan makes no mention of Owen at all.[2] Even those scholars especially interested in Carlyle and science have had very little to say about Carlyle's friendship with Owen.[3] In fact, the only scholar who has given the Carlyle/Owen relationship any sustained attention at all thus far is Owen's biographer, Nicolaas Rupke,[4] who devotes several pages to the Carlyle/Owen relationship, characterizing Carlyle as the very embodiment of an 'independent metropolitan culture' attracted to German romanticism, a 'metaphysical, yet secular' intellectual culture to which Owen also belonged (62, 64). In other words, Rupke sees Carlyle and Owen as sharing a common transcendentalist epistemology; in fact, says Rupke,

'it was Owen's transcendental morphology that brought the two men together' (187).

As Stephen Jay Gould observed in *The Structure of Evolutionary Theory*, the study of natural history has long been predicated on the dichotomy between two competing paradigms: functionalism, with its emphasis on adaptation to the 'conditions of existence' as the force responsible for determining the anatomical structure of individual species; and formalism, with its emphasis on transcendental morphology and 'unity of type' as the force that constrains the anatomical diversity of life and roots it in a common, archetypal blueprint.[5] But as Rupke acknowledges, there was a dichotomy in Owen's work, so that both paradigms were present (163, 182, and 219): Gould notes this dichotomy too (324). There was, consequently, a productive complexity at work in Owen's science that generated further complexities when interpreted and used by Thomas Carlyle in the reframing of his historiographical writing. A focus on the friendship between Owen and Carlyle draws attention to a hitherto neglected disciplinary intersection between the fields of Victorian science and letters. It can help us to see Carlyle's historiographical work, in particular the relations between *Past and Present* and *Oliver Cromwell's Letters and Speeches*, in a new light.

The few pages that Rupke devotes to the Carlyle/Owen relationship have an understandably limited contextual function within his biography. His discussion of Carlyle is meant to sketch in for us the broader intellectual setting within which Owen worked. Given his subject, he is not particularly interested in taking up this relationship from Carlyle's perspective, and so tells us little beyond the fact that Carlyle 'thought highly of Owen', even going so far as to suggest (dubiously, it seems to me) that Owen 'fitted Carlyle's model of the hero' (60). Of course, Rupke's focus lies elsewhere – on Owen's significance within the rapidly changing and politically charged context of Victorian natural science. My focus instead will be the significance of this relationship from Carlyle's perspective, particularly as it influenced Carlyle and his historiographic work.

I believe that Carlyle's initial meetings with Owen in late August 1842, especially his visit to the Hunterian Museum at the Royal College of Surgeons, together with his direct encounter with relics from the Naseby battlefield just three weeks later, had a discernible effect on his subsequent writing, including *Past and Present* (written November 1842-March 1843), the 'Bog of Lindsey' essay (probably written in late 1843, and eventually published in *Historical Sketches*), and *Oliver Cromwell's Letters and Speeches, With Elucidations* (written 1844-early 1845). In these works, Carlyle's own articulation of the past and its relationship to the

present takes a distinctly paleontological turn; for the first time Carlyle metaphorizes the historian's task as equivalent to the excavation and articulation of the fossilized remains of extinct animals. A close examination of these paleontological metaphors reveals Carlyle struggling to overcome, or at least come to terms with, his own self-consciously paradoxical view of history, especially with regard to his Cromwell project. In the end, as I intend to show, Carlyle's paleontological approach to the past simulates the spectacular, skeletal reconstructions of functionalists like Georges Cuvier and Richard Owen, while simultaneously undermining the romantic fantasy that such reconstructions actually make the past come alive. Although Carlyle's paleontological rearticulation of the historiographic enterprise thus preserves, rather than solves, the paradoxical dilemma confronting the self-conscious historiographer, it nevertheless provides him with the solution to his difficulties with the Cromwell project, as the prominence of paleontological metaphors in the opening chapters of *Cromwell* suggests. Rather than write a history or biography as he initially intended, Carlyle chooses instead to assemble and 'elucidate' Cromwell's letters, metaphorizing his task as the excavation, cleansing, articulation, and exhibition of skeletal remains recovered from the 'Quagmire of History'.

I will begin by returning to Rupke's assertion that 'it was Owen's transcendental morphology that brought the two men together' (187). A variety of factors connected to Owen's intellectual development make this assertion questionable.[6] In reality I think the two were brought together for quite different reasons. We know that prior to their meeting Owen already admired Carlyle and was familiar with his written work (especially *The French Revolution*), and that Carlyle had become aware of and interested in Owen through their mutual friends John Sterling and Caroline Fox. In fact, Carlyle 'had wished to see' Owen when on the evening of 24 August 1842 a man with 'a pair of large protrusive glittering eyes' showed up at his door unannounced, saying '[h]e was impowered to call' on Carlyle 'by Miss Fox, of Falmouth'.[7] After some initial confusion as to the visitor's identity and purpose, Carlyle was absolutely delighted with his initial conversation with Owen, reporting to Jane that he 'got two hours of excellent talk out of him: a man of real ability, who could tell me innumerable things!' (*CL* 15:52). Four days later, on 28 August, Carlyle (in the company of his brother John) returned the visit, 'spending two hours or better' (*CL* 15:59) with Owen at the Hunterian Museum at the Royal College of Surgeons, where Owen had been named conservator that year. In a letter written to John Sterling the day after this museum visit, Carlyle's praise is downright effusive: 'He is a man of real talent and worth, an extremely rare

kind of man. Hardly twice in London have I met with any articulate-speaking biped who told me a thirtieth-part so many things I knew not and wanted to know. It was almost like to make me cry, to hear articulate human speech once more conveying real information to me …' (*CL* 15:55).

We don't know exactly what Carlyle and Owen discussed during their initial conversation at Carlyle's home and their subsequent meeting at the Hunterian Museum. However, from the account of their first meeting in *The Life of Richard Owen* (written by Owen's grandson), we do know that it was Carlyle who expressed an interest in seeing the museum at the Royal College of Surgeons, and that during the museum visit Owen personally escorted Carlyle and his brother through the exhibits and described the specimens to them.[8] Given this context, it was probably not transcendental morphology but Cuvierian functionalism that informed Owen's 'articulate speech'. As Martin Rudwick explains, 'Owen's strong sense of designful functional adaptation derives directly and very clearly from his hero Cuvier: and the heuristic value of the Cuvierian tradition comes out most clearly and spectacularly in Owen's work, as in Cuvier's before him, in the reconstruction of fossil vertebrates' (208-9). As Carlyle viewed the museum's most spectacular and prominent exhibits, Owen would have focused on the functionalist articulation of these specimens, on the specific functional adaptations of their anatomy (what the creature looked like, how it moved, what it ate, how well adapted it was to its environment, and so on), rather than on the creatures' formal relation to some sort of ideal osteological archetype, an idea which in any case Owen had yet to fully develop at the time of Carlyle's visit to the museum.

So just what exhibits did Owen describe to Carlyle and his brother John at the Hunterian Museum on 28 August 1842? Thomas Hosmer Shepherd's image of the interior of the Hunterian Museum at the Royal College of Surgeons may provide the answer (see fig. 1). This image is no doubt a familiar one to Victorianists interested in natural history; it has been reproduced fairly frequently, most prominently as the cover art for Adrian Desmond's *The Politics of Evolution*. This image has been assigned a variety of dates, but close attention to the exhibits depicted in the foreground, enables us to fix a date with reasonable precision.[9] The *Mylodon robustus*, a giant ground sloth in the left foreground, and *Glyptodon clavipes*, a giant armadillo in the right foreground, were excavated just north of Buenos Aires in 1841 and shipped to Owen at the Hunterian that same year.[10] According to the minutes of the Board of the Museum, the articulation of the Mylodon skeleton was reported as complete on 24 May 1842, so the image cannot be earlier than that date.[11]

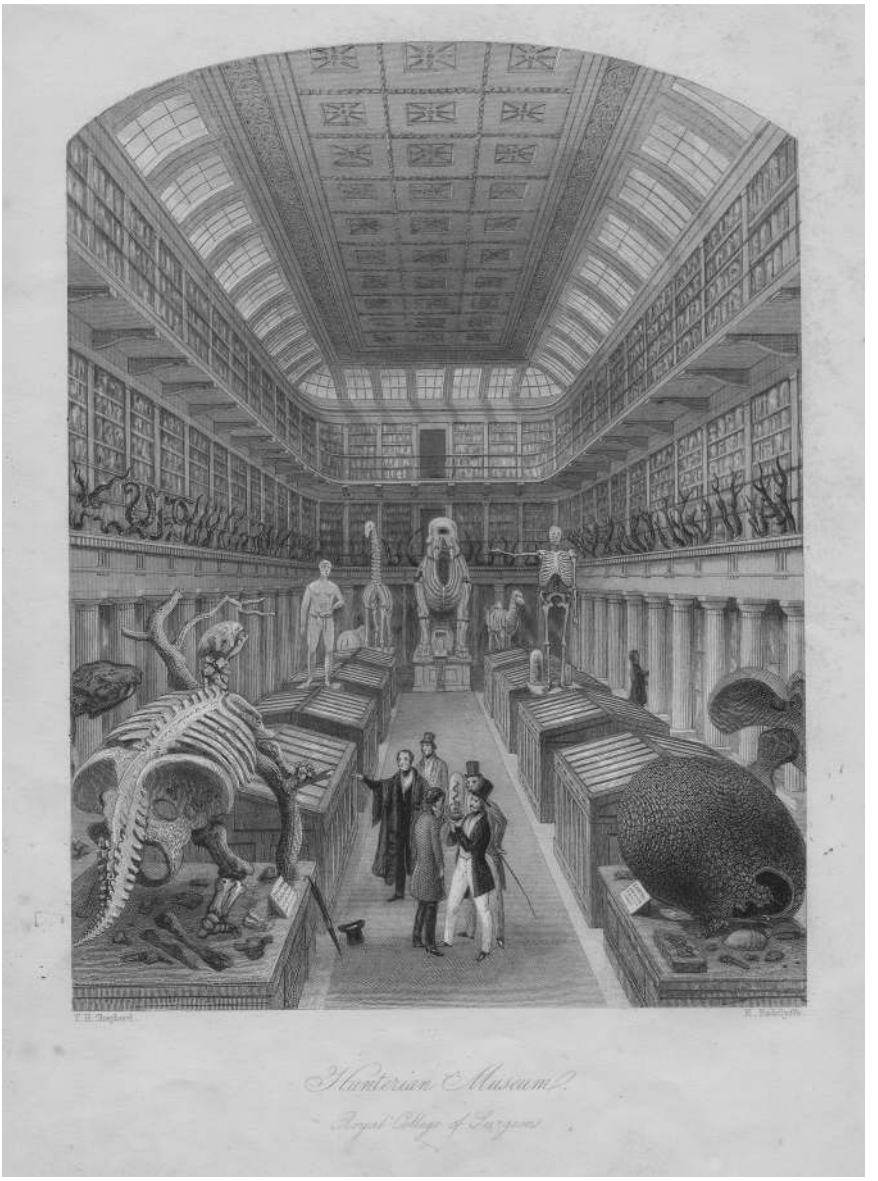

Fig. 1. The Hunterian Museum at the Royal College of Surgeons, London, late 1842. Illustration by Thomas Hosmer Shepherd. Reproduced by kind permission of the President and Council of the Royal College of Surgeons of England.

No doubt Owen would have lingered over the exhibit of the Mylodon, given that he had just published that year an important study of this particular type of Megatherioid mammal entitled *Description of the Skeleton of an Extinct Gigantic Sloth, Mylodon robustus*. As Owen himself declared, 'The singularly massive proportions of the skeleton of the Mylodon Robustus arrest the attention of every observer, and are not less calculated to excite the surprise of the professed comparative anatomist' (*Description* 15). Rupke describes Owen's Mylodon 'memoir' as essentially 'a defence of Cuvier' (130), who had first recognized the Megatherium (a creature belonging to the same order as the Mylodon, but larger still) as an enormous sloth, but whose conclusions were coming under attack from anti-functionalist comparative anatomists who were now trying to argue 'that the megatherium was not a sloth but was related to the armadillos, that it was not a vegetarian but fed on meat … that it was a burrower, if not for concealment, then for digging up ants' (130). Owen had already determined that the Megatherioid mammals were leaf eaters, and not root or anteaters, by studying the teeth and crania of three Megatherium specimens that Darwin brought back from his voyage on the *Beagle*.[12] Owen's monograph demonstrated conclusively that the *Mylodon robustus* was indeed a giant sloth, and his reconstruction of the skeleton in the Hunterian museum depicts the beast raised up on its hind legs and grasping a tree trunk, in the attitude of an animal feeding on leaves. As Rupke notes, 'Ever since, in the Crystal Palace gardens and in museums, the giant ground sloth has been mounted and raised up on its hind tripod with its forelegs up against a tree stem' (130).

It was on the basis of such spectacular functionalist reconstructions that Owen was gaining a reputation beyond the scientific community, and achieving a quite public celebrity. The Megatherioid mammals would be closely associated with Owen throughout his career, as would the Dinornis, a very large, ostrich-like bird (commonly known as the moa) from New Zealand. Owen had inferred the existence of such a creature from a single fragment of a femur he had received at the Hunterian museum in 1839; just a few short months after Carlyle's visit, in early 1843, the discovery of more fossil remains would prove Owen correct and earn him the sobriquet 'the British Cuvier'.

I turn next to Carlyle: what would have aroused his curiosity about the museum at the Royal College of Surgeons in the first place? Of what particular interest are skeletal reconstructions of extinct species to a man who in August 1842 was supposed to be hard at work on a biography of Oliver Cromwell? Part of the answer lies, as I intend to show, in the specific timing of his two initial meetings with Owen. But the larger

context here is Carlyle's lifelong interest in science. As Carlisle Moore and others have shown, Carlyle had a strong background in mathematics, as well as an interest in astronomy and geology, all of which he studied at Edinburgh ('Torch of Science' 5-7). Carlyle studied geology under Robert Jameson, whose work drew upon the stratigraphic theory of Abraham Werner and the catastrophic theory of Georges Cuvier. As Rebecca Stott has noted, 'Carlyle's exposure to geology' was thus primarily an exposure to 'Cuvierian catastrophism', rather than to the gradualist uniformitarianism of James Hutton.[13] Jameson wrote the preface to the English translation of Cuvier's *Discours sur les révolutions de la surface du globe* (English title: *Essay on the Theory of the Earth*), and we know that Carlyle read this book in 1814 (*CL* 1:35). Perhaps this helps explain why, while in Paris in 1824 after his formal education had ended, Carlyle made it a point of attending Georges Cuvier's introductory lecture on comparative anatomy. In a letter to his brother John, Carlyle says that 'Cuvier himself pleased me much. … His lecture lasted an hour and a half: I made out nine tenths of it, and thought it very good, and wonderfully fluent and correct for an extempore one' (*CL* 3:188).

Although Carlyle's interest in science is often said to have waned after the publication of *Sartor Resartus*, Stott demonstrates that geological metaphors are prominent throughout *The French Revolution*, and that they have their origins in Cuvierian catastrophism (11-13). Carlyle's interest in geology also continued beyond the publication of *The French Revolution*. In March 1843, as he was bringing *Past and Present* to a conclusion, Carlyle attended a series of lectures by Charles Lyell, author of *The Principles of Geology* (1830-33), a landmark text notable for both its extreme uniformitarian perspective and its insistence on a scientific, rather than a biblical, basis for geology (*CL* 16:71, see also 71n.4). In a letter to Jane in July of that same year, Carlyle mentions reading 'Lyell's Geology', apparently for the first time (*CL* 16:260).[14]

Carlyle's enthusiastic interest in Owen and his museum exhibits of extinct specimens may thus be, at least in part, a product of Carlyle's own lifelong curiosity about natural history, and his desire to fill the gaps in his formal schooling on this particular subject. Indeed, there is evidence to suggest that Carlyle went to some effort to acquaint himself with comparative anatomy and paleontology during the 1840s and 1850s and that he read Owen's work. In a journal entry from June 1846, Caroline Fox reports Carlyle to have been 'convinced by Owen's "Book on Fossils"'.[15] He also read a biography of John Hunter (borrowed from Owen), whose collection made up the bulk of the holdings at the Museum of the Royal College of Surgeons and attended on occasion

Owen's Hunterian lectures (Rupke 92), delivered annually throughout the 1840s and early 1850s. By 1858, so sensitive was Carlyle to the potential significance of fossil remains that he could not pass by a site where construction workers had unearthed large, unusual-looking bones without spending considerable effort to locate Owen immediately, and on foot, as his subsequent letter to Owen attests [the underlinings are Carlyle's]:

> In Wilton Street (leading from Knightsbridge into Wilton Crescent & Belgrave Square), a large body of Navvies are digging foundations for new Houses; passing them this afternoon in the rain, I was struck by two facts, First that the earth where they were, an extensive space, about 8 or 9 feet deep by this time, had never been stirred before, for most part (as was evident by the clay strata &c); and Secondly that they were in the very act of digging up a considerable quantity of bones, – entire skeletons of some kind of quadruped creatures (to all appearance) being imbedded therein. My first notion was of elks or the like, but I know nothing whatever of such matters: thigh-bones, shoulder-blades, ribs &c were about the size of a hare's (I thought), but of a shape which seemed different. In another quarter I saw the broken remnants of some thing which might have been hyena-ish or bear-ish, – evidently a different kind of creature. The strangeness of the thing made me pause in the rain and try what I could to induce the barbarous fellows "to send for Professor Owen", – "to tell their master about it at least," – to do something or other before they knocked the phenomena quite to ruin! They grinned benevolently upon me; but I might as well have addressed three Horses as the three individuals.
>
> I called afterwards (tho' in great haste) at the Albemarle Street place in search of you or some hook upon you; next at the Geological Museum; thirdly (with very vague outlook) at the Atheneum: in vain. Perhaps it is all moonshine; such phenomena of bones in such situations are not worth looking at, or attending to; but on the other hand, the contrary is possible: – and in short I find I cannot go peaceably to bed without having at least given you notice, and cleared my own conscience. If you do walk down tomorrow (not otherwise) please to tell me what kind of creatures they were that employed those bones so many thousand years ago.[16]

Even here we see Carlyle's intense curiosity about fossilized remains coupled with his self-conscious lack of expertise on the subject. Still, he is able to describe the remains and their depth in detail, and even offers a few not unreasonable speculations about the identity of the creatures. His futile search for Owen, his letter written to clear his conscience, and his request that Owen inform him about the bones say even more about the intensity of Carlyle's interest in such matters.[17]

If Carlyle's interest in Owen was a product of his own curiosity about

the subject of natural history, the timing of their first two meetings – in late August 1842 – was to have a significant impact on Carlyle's conception of the writing of history. These initial encounters with Owen came at a crucial moment for Carlyle, when he was struggling with his Cromwell project, and when the relationship between the past and present was very much on his mind. Carlyle described his predicament in a now-famous letter to Emerson: 'One of my grand difficulties I suspect to be that I cannot write two Books at once; cannot be in the seventeenth century and in the nineteenth at one and the same moment' (*CL* 15:57). With his project on Cromwell thus floundering, Carlyle set off during the first week of September on a brief tour of 'Cromwelldom' (*CL* 15:81) in the hope that some insight and/or inspiration might result from coming into contact with various sites relevant to Cromwell's biography, such as Cromwell's house in Ely and the location of his first farm in St. Ives. Though apparently initially satisfied with his tour, Carlyle expresses dismay in a letter to Charles Redwood at the way Cromwell's impact on this region has faded dramatically: 'God's Earth, which Oliver among others walked over, is still verily there; but the traces of Oliver on it are worn very faint indeed. Many of the people never heard of his name; with the remainder he has dwindled mostly into a Fable, and even a dull owlish Fable, – for the English are not great hands in the Mythologic line!' (*CL* 15:88).[18]

Having returned to Chelsea in mid-September, Carlyle began a detailed correspondence with Edward FitzGerald, whose family owned the land on which the Battle of Naseby had been fought in June of 1645. Carlyle had visited the site of the battle in the spring of 1842, or so he thought; FitzGerald believed the battle to have been fought about a mile from the commemorative obelisk raised by his father, which Carlyle assumed marked the actual site. In a letter to FitzGerald dated 18 September, Carlyle asks him to seek out some of the inhabitants in and around Naseby and inquire, 'Where precisely any dead bodies are known to be found? Where and when the last-found was come upon; what they made of it, – whether no Antiquarian kept a tooth; at any rate, a button or the like? Cannon-balls ought to be found, especially musket-balls, down in that hollow, and on the slope thitherward: is any extant cabinet master of one?' (*CL* 15:90). What Carlyle is asking for here, of course, is simply confirmation, via physical evidence, that the battle was fought and that men were slain in a particular spot, and not some other. But what happens next goes well beyond this simple request for archaeological verification of battlefield geography. FitzGerald, acting on his own initiative, has a local farmer dig a trench where the main part of the battle is said have been fought, and begins exhuming the skeletal

remains of the men who were slain there. Carlyle's reaction to the news of the exhumation is powerful and revealing: 'The opening of that burial-heap blazes strangely in my thoughts: these are the very jawbones that were clenched together in deadly rage, on this very ground, 197 years ago! It brings the matter home to one, with a strange veracity, – as if for the first time one saw it to be no fable and theory but a dire fact. I will beg for a tooth and a bullet; authenticated by your own eyes and word of honour!' (*CL* 15:101-2). Even though his experience of the exhumation remains vicarious at this point, Carlyle's sense of the reality and materiality of the past clearly contrasts with his direct experience of 'Cromwelldom' in Ely, St Ives, and Huntingdon just two weeks earlier, when he discovered that Cromwell was, at best, a mere fable for the people living in that region. With the excavation of these human remains at Naseby, fable is transformed back into 'dire fact'. But still Carlyle's sensibility is not entirely satisfied; he desires a more direct contact with these bones – to literally touch and possess them – and thus he requests that FitzGerald send him a tooth. FitzGerald readily complies, and on 28 September, exactly one month after his visit to the Hunterian Museum, Carlyle receives in the mail two teeth and four bullets, and he would soon receive from FitzGerald an arm bone to add to his Naseby curiosities.

Upon receipt of the relics Carlyle wrote to FitzGerald, 'There is a horrible impressiveness in these jaw-teeth; a stern matter of fact that there was a Fight at Naseby, and that you are now on the very arena of the same. To think that this grinder chewed its breakfast on 14 June 1645, and had no more eating to do in the world, or service farther there – till now, to lie in my drawer, and be a horror! For one thing, I wish you would not open any more mounds till I can be there too: it would have been worth a longer journey to see those poor packed skeletons …' (*CL* 15:108). Carlyle kept these relics for the next five years, through the writing of *Past and Present*, many of the essays in *Historical Sketches*, and *Oliver Cromwell's Letters and Speeches, With Elucidations*.[19] This fetishization of bones and bullets, coupled with the desire to gaze upon what remains of the dead bodies as they are uncovered for the first time in nearly two hundred years, underscores Carlyle's awareness of the power of material relics to body forth the past into the present, to render that past, in a manner of speaking, visible and palpable.[20]

And yet the Naseby relics represent more than evidence of the material reality of the past. The teeth, bones, and bullets are not just material artifacts that make the past 'come alive', to use the old cliché; they are also indicative of the horror, the finality, the otherness of death, and thus the otherness, the 'strangeness', of the past itself. The 'strange

veracity' of these relics is thus a product of their power paradoxically to transgress and enforce the forbidding boundary between the present and the past; their power is therefore a disturbing one, both excitingly real and deeply unsettling.

For the self-conscious historiographer, such paradoxes may render the task of representing the past exceedingly difficult, if not impossible. But when this problem of representing the past is approached from the methodological perspective of paleontology, the task at hand becomes quite clear: the remains of the past must first be excavated, then 'articulated' and displayed, as part of a process of historical reconstruction and exhibition that brings us nearer to the 'reality' of the past as it once existed. As Richard Owen remarked in *On the Extent and Aims of a National Museum of Natural History* (1862), 'No triumph of science has appeared more marvellous to the intelligent mind than the reconstruction of a form of life that has passed away long ages ago, and the representation to the visual sense of such an animal by its framework, so as to leave little to the imagination in realizing a complete idea of the once living figure of the extinct beast. In the British Museum, the North American Mastodon, the South American Megatherium, the Irish Giant-stag (Megaceros), the New Zealand Giant-bird (Dinornis), are thus exhibited. In the Museum of the Royal College of Surgeons, the great Ground Sloth (Mylodon) and the giant Armadillo (Glyptodon) are similarly displayed'.[21]

It was, Claudine Cohen observes, Cuvier's 'conception of the organism as a functional system' that enabled the recreation of extinct specimens in their entirety from mere fragments of physical remains. 'Using the rhetorical device of the synecdoche,' she continues, 'Cuvier presented with great confidence one of the most powerful and enduring images connected with the paleontologists' profession: the spectacular practice of reconstruction, which, starting from a small part, produces a gigantic creature. It is a prodigious alchemy akin to the myth of the phoenix rising from its ashes, or the resurrection of the dead.'[22] This 'resurrection' of the past, of course, is a goal closely associated with Romantic historiographers writing in the first half of the nineteenth century, when Cuvier was at the height of his fame. 'Before he could understand the significance of the facts,' writes Rosemary Jann, the Romantic historiographer 'had to "resuscitate" them: he had to re-create the past in all its specificity before it would divulge its unique unifying principles' (xxi-xxii). And it was Thomas Carlyle, says Jann, who 'took most literally the romantic injunction to resuscitate the past' (56) in so far as he 'needed to create a past so experientially real that it compelled the reader's presence in his vision. His desire

to capture both the spiritual essence and the fact that embodied it, to reconstruct the very "life of man", posed new challenges to the researcher. The historian had both to see and divine; he had to be the scientist as well as the artist to make history disclose its meaning' (45). Richard Schoch also identifies Carlyle as 'foremost among' Romantic history writers,[23] and concludes that the 'synecdochic pattern of the part returned to the whole, of the body become complete' serves as 'the controlling trope … of *Past and Present*' (52). 'In order to reveal the moral content of history,' writes Schoch, for Carlyle 'the past had to be resurrected in the flesh' (52). In this way, the purpose of the Romantic historiographer and the functionalist paleontologist might be said to converge; both endeavor to 'reconstruct' the past in its specificity, in order to (re)present that past in such a way as to, in Owen's words, 'leave little to the imagination in realizing a complete idea of the once living figure'.

Even so, this view of Carlyle as the 'artist-historian who imaginatively resuscitates the past lives' of the dead[24] tends to downplay, at times even disregard, the extent to which Carlyle also viewed such resuscitations of the past as utterly impossible. As Ann Rigney reminds us, 'Carlyle repeatedly highlights those elements which resist his efforts as historian to apprehend them,' especially 'the boundlessness of the past, its inaccessibility, and its unintelligibility'.[25] Indeed, as Suzy Anger observes, Carlyle's 'writings on history already manifest much of what is often regarded as contemporary: awareness of the effects of representation, the textuality of historical knowledge, and the impossibility of a fully objective account of the past'.[26] Contra Schoch, Rigney argues that 'it is clear that he didn't hold a synecdochic belief in the capacity of a part to stand for the whole, on the principle that if you know it, you know the rest. Rather, he stresses the importance of "an Idea of the Whole" informing the study of a single part or, what this seems to mean in practice, the sense that the matter is "inexhaustible"' (344).

It is precisely Carlyle's self-consciously conflicted view of historiography that allows him to be represented in both of these ways, as an artist/historian/scientist deploying the logic of synecdoche to generate miraculously the whole from the part, and as a writer/historiographer who self-consciously foregrounds the limitations of such synecdochic historical representations. Caught between the desire for a full, unmediated apprehension of the past and the self-conscious awareness that such an apprehension is utterly impossible, in the fall of 1842 Carlyle begins to reconceive his approach to the past in paleontological terms, as he searches for a way to work through his conflicted desires and reach a solution to his Cromwell dilemma.

On 12 October 1842, just two weeks after he acquired his Naseby relics, Carlyle borrowed from the London Library the twelfth-century chronicle of Jocelin of Brakelond, recently published by the Camden Society.[27] Early in Book 2 of *Past and Present* (which he began writing in late October/early November 1842), Carlyle uses paleontological terminology to describe the way Jocelin's chronicle transgresses the boundary between past and present:

> Will not the reader peep with us into this singular camera lucida, where an extinct species, though fitfully, can still be seen alive? Extinct species we say; for the live specimens which still go about under that character are too evidently to be classed as spurious in Natural History: the Gospel of Richard Arkwright once promulgated, no Monk of this old sort is any longer possible in this world. But fancy a deep-buried Mastodon, some fossil Megatherion, Ichthyosaurus, were to begin to speak from amid its rock-swathings, never so indistinctly! The most extinct fossil species of Men or Monks can do, and does, this miracle, – thanks to the Letters of the Alphabet, good for so many things.[28]

Here, he equates Jocelin with the fossil remains of extinct creatures, including notably the megatherium, that he would have learned about from Owen during their meetings the previous August.[29] I suggest that the full context for this passage is Carlyle's friendship with Owen, his visit to the Museum of the Royal College of Surgeons, and his fascination with the Naseby relics, all of which took place in the six weeks prior to Carlyle's reading of Jocelin's chronicle. The bones of the dead, whether belonging to Pleistocene mammals or slain Naseby soldiers, were clearly on his mind (and a few were in his drawer) prior to reading Jocelin, and Book 2 of *Past and Present* is littered with references to extinct species, bones, dead bodies, and other material remains of the past. As already noted, these references are also rooted in Carlyle's ongoing struggle with the paradoxical nature of historical representation. His earlier metaphorizations of the past usually took the textual route; in 'On History' (1830), for example, Carlyle likens history to a 'Prophetic Manuscript', a 'Palimpsest', discernible in part, but certainly not as a whole.[30] With the introduction of paleontological metaphors in *Past and Present*, Carlyle recasts the paradox; as with the Naseby relics, the facticity of the past (the fossilized remains of extinct species) here collides with its remoteness, obscurity, and partiality (the fossils are not articulate; they cannot speak or move or reanimate their tissue; they are but a partial remnant, a mere trace, of a once-living creature). Note, for instance, how the reference to the fossil Mastodon, Megatherion,[31] and Ichthyosaurus is deployed in the passage quoted above. These are not the spectacular, functionalist, skeletal reconstructions of the sort

Carlyle would have seen at the Hunterian Museum; instead, these extinct specimens remain unexcavated, still embedded in rock. Jocelin of Brakelond, too, we are to understand, remains embedded in the past like an extinct fossil mammal or reptile, but unlike the fossilized animals, his chronicle allows him to transcend his buried state and miraculously 'speak' to us across the centuries. By keeping the fossils (and, in a sense, Jocelin) embedded in rock, Carlyle retains the sense of the past as remote and inaccessible, even as he emphasizes in this passage the seemingly direct presence of Jocelin's 'voice'.

The process of paleontological excavation and 'articulation', essential for the reconstruction of extinct creatures, seems to be quite unnecessary in the case of 'extinct fossil species of Men or Monks', who are quite capable of articulating themselves through the written word. Yet a closer look at this section of Book 2 reveals that Jocelin's articulate speech is itself predicated on a prior excavation and articulation, not of the monk himself (at least not literally), but of his text. Carlyle tells us a few paragraphs earlier that Jocelin's chronicle is 'an extremely foreign Book', emphasizing 'how remote it is from us; exotic, extraneous; in all ways, coming from far abroad! The language of it is not foreign only but dead: Monk-Latin lies across not the British Channel, but the ninefold Stygian Marshes, Stream of Lethe, and one knows not where! … And then the ideas, life-furniture, whole workings and ways of this worthy Jocelin; covered deeper than Pompeii with the lava-ashes and inarticulate wreck of seven hundred years!' (46). Clearly, this metaphorization suggests that Jocelin's chronicle stands in need of archaeological excavation, or more precisely, since we are dealing here with a (dead) textual body, an exhumation.[32] Thus, Carlyle soon informs us that, thanks to the efforts of the Camden Society's editor Mr. Rokewood, Jocelin's chronicle has been 'unwrapped from its thick cerements, and fairly brought forth into the common daylight, so that he who runs, and has a smattering of grammar, may read' (48). This exhumation of the manuscript, its 'decipher[ing] into clear print' by Rokewood – not to mention Carlyle's own translation and incorporation of Jocelin's text into his own – undermines the idea that we are 'hearing' an unmediated Jocelin miraculously speaking from the deep-buried past. Instead, we have again Jocelin-as-fossil, this time no longer embedded in rock, but exhumed, excavated, and articulated through the editorial processes of Rokewood and Carlyle.[33]

Moreover, despite the fact that Carlyle deems the articulate speech of Jocelin a miracle, throughout Book 2 of *Past and Present* he insists on foregrounding the degree to which such 'speech' is actually inarticulate, fragmented, and imprecise, affording us only the illusion of a 'face-

to-face' conjunction of the past with the present. In reality, we have mere fragments and partialities, not the reconstructed framework of the beast in its entirety. Jocelin's 'camera lucida' text may seem to offer us something more, a window on an extinct species that can be seen alive, but even so our view is obscured and partial, and the creature alive only 'fitfully'.[34] Thus, says Carlyle, 'How much in Jocelin, as in all History, and indeed in all Nature, is at once inscrutable and certain; so dim, yet so indubitable; exciting us to endless considerations' (51). Note here that this paradoxical combination of facticity and elusiveness, of legibility and illegibility, of the articulate and the inarticulate, is characteristic not just of Jocelin, not just of History, but all Nature. This is not a rationalization of the impossibility of historiographic representation. On the contrary, it is an epistemological statement that accepts this paradoxical condition as inevitable; in fact, it is precisely the paradox that fascinates and stimulates, that draws the historian and naturalist to 'endless considerations' of their respective subjects.

Better to embrace self-consciously the paradoxical nature of the historiographic enterprise while striving to represent the past as fully as possible, than to proceed as if history were merely a number of events to record, personages to categorize, or a set of relics to collect. This is why, also in Book 2, we find Carlyle harshly criticizing the excavation of the past as conducted by the dull pedantry of Dryasdust: 'Alas, what mountains of dead ashes, wreck and burnt bones, does assiduous Pedantry dig up from the Past Time, and name it History, and Philosophy of History; till, as we say, the human soul sinks wearied and bewildered; till the Past Time seems all one infinite incredible grey void, without sun, stars, hearth-fires, or candle-light; dim offensive dust-whirlwinds filling universal Nature; and over your Historical Library, it is as if all the Titans had written for themselves: DRY RUBBISH SHOT HERE!' (53). The problem with historical excavation of this sort is that it makes no effort to capture, however fleetingly or partially, the multi-dimensional life that once existed. The bones of the past are indeed incontrovertibly material evidence of a former, and in some cases utterly extinct, life, but such artifacts are nevertheless in and of themselves inarticulate, silent, dead. Moreover, such pedantic accumulations of historical records fail to bring the past into a meaningful relationship with the present, into what Carlyle terms a 'mutual elucidation'. For these fragments of the past, writes Carlyle, signify '[a]nother world truly: and this present poor distressed world might get some profit by looking wisely into it, instead of foolishly. But at lowest, O dilettante friend, let us know always that it was a world, and not a void infinite grey haze with fantasms swimming in it. These old St. Edmundsbury walls, I

say, were not peopled with fantasms; but with men of flesh and blood, made altogether as we are. […] Alas, how like an old osseous fragment, a broken blackened shin-bone of the old dead Ages, this black ruin looks out, not yet covered by the soil; still indicating what a once gigantic Life lies buried there. It is dead now, and dumb; but was alive once, and spake' (54). Fielding says that this shin-bone is essentially a Naseby relic, transformed here into an image of the ruins of St Edmundsbury abbey (63 n.23).[35] It is equally plausible that the image Carlyle had in mind could have been the tibia of a huge, extinct vertebrate mammal, like the mastodon or 'megatherion'. Jutting out of the ground, this single bone would thus serve as an indicator, as Carlyle says, of 'a once gigantic Life' that 'lies buried' beneath. Of course the difficulty here lies precisely in this word 'Life', for the object of historiography (or paleontology, for that matter), is not merely the complete skeleton, excavated and articulated, but a full, accurate knowledge of the living creature whose fossil remains these are. Here, then, is our recurring paradox: the material remains are the provocative remnants of a past once vibrant and living, but in and of themselves, such remains are just that – remains – partial, dead, silent, and other.

How then to convey the richness, the fullness, the complexity of the past, without lapsing into the one-dimensionality of Dryasdust pedantry? In his essay 'Bog of Lindsey', published posthumously in *Historical Sketches*, Carlyle again takes up this question in paleontological terms, this time offering a sharp critique of skeletal reconstruction, and contemplating in its stead the possibility of a full-scale reanimation of the extinct past.

The 'Bog of Lindsey' essay was most likely written after *Past and Present*, in the latter half of 1843. Having studied all of Carlyle's extant manuscripts related to his Cromwell project, Dale Trela concludes that the essays eventually published in *Historical Sketches* were probably the ones 'Carlyle spent so much effort writing and revising in November and December 1843'.[36] Absolute certainty may not be possible, but there are clues that suggest Trela's dating is accurate. Among Carlyle's manuscripts are chapter outlines from late 1843, evidence that Carlyle was trying 'to develop an ordered plan for the farrago of different pieces he had drafted up to this point' (Trela 32). One of these outlines mentions incorporating 'the Fen country' and 'the useable parts of Smelfungus', a Carlylean persona who appears in the 'Bog of Lindsey' piece.[37] There is also a clue in the first paragraph of the essay itself, which offers a geological account of the area where Cromwell was born and raised: 'It is not naturally a romantic region, that Fen Country; for the lover of the picturesque there is little comfort in it. A stagnant land,

grown dropsical; where the lazy streams roll with a certain higgling deliberation, as if in doubt whether they would not cease to roll at all, which, indeed, they occasionally do. The land-strata have not been sufficiently heaved up from the Ocean, say the Geologists, with much reason. The upheaval of strata from the ocean-bed may be in excess and give us Alpine snow-mountains, frightful Cotopaxis, Himalayas, with their cataracts and chasms; or in defect, as here, and give us quaking peat-bogs, expanses of fat mud and quagmire.'[38] Such a description seems rather peculiar for someone thought to have been exposed primarily to Wernerian geology; the account is positively Huttonian in its emphasis on the rise and fall of 'land-strata', rather than erosion resulting from the subsidence of a global flood. This geological explanation of the bog country in terms of insufficient 'upheaval' of land-strata may very well be drawn from Charles Lyell's lecture series at the Marylebone Institution in March 1843, which Carlyle attended. According to an account in the *Times*, 'the principle of the elevation and subsidence of the strata of the earth … formed the subject of his first lecture'.[39] In addition, the references to the skeletal reconstruction of extinct mammals may also indicate that this piece was drafted after Carlyle's meeting with Owen and his visit to the Hunterian museum.

Carlyle's brief meditation on the bog country is summarized quite concisely through the voice of Smelfungus, who declares that 'these swampy Fen Countries are an emblem to thee of human History in general!' (63). Just as layer upon layer of decaying organic matter has produced the 'black stratum of morass' known as peat, so too, we are to understand, has the past become condensed and compressed. 'Generation under generation,' says Smelfungus, 'even as here in the Bog of Lindsey, such is History; and all higher generations press upon the lower, squeezing them ever thinner …' (64). Initially, this stratigraphic bog metaphor reinforces the idea that the past is ultimately unrecoverable, due to the material transformation organic matter undergoes when under decaying under pressure. Smelfungus again: 'Yes, brother, the leafy, blossoming, high-towering past century becomes but a stratum of peat in this manner; the brightest century the world ever saw will sink in this fashion; and thou and I, and the longest-skirted potentates of the Earth, – our memories and sovereignties, and all our garnitures and businesses, will one day be dug up quite indistinguishable, and dried peaceably as a scantling of cheap fuel' (64). Thus all efforts to revive the dead, says Smelfungus, are utterly futile: 'Vain to attempt reviving what is dead … caput mortuum will not live again. Have an eye for knowing what is extinct; it will stead thee well' (65).

And yet, on occasion, the bog reveals something other than the

great diversity of the past compressed and homogenized into mere 'black bog-substance'. 'In the Bog of Lindsey,' says Smelfungus,

> there lie wondrous animal remains. … What fossil elks, enormous mammoths, of extinct species some of them, are raised from bogs. Such also in Historical Museums, belectured by fatal Dryasdust, I have seen, – figuratively speaking. A mammoth all gone to the osseous framework; its eyes become huge eyeholes, filled with circumfluent clay. For it is all sunk in clay; down deep, in the dead deeps. Poor mammoth, – in its stomach, they say, – in the place that had been its stomach, – lay a bundle of recognisable half-eaten reeds. Reedgrass cropped in the antediluvian ages, with a tongue that had muscles and taste before the Deluge, but has none now. This mammoth, too had its life. I tell thee, the world lay all green and alive around it then, and was not inert blind bog as thou seest it now. Not in any wise, thou fatal Dryasdust! – (65-6).

This rich passage is interesting for a number of reasons. The suggestion that both elk and mammoths were routinely raised from peat bogs in England is inaccurate at best; while the remains of elk were commonly found in peat, those of larger quadrupeds, including the mammoth, were not.[40] And although Carlyle's persona Smelfungus here claims to have seen a 'mammoth all gone to the osseous framework' on display in a museum, Carlyle himself could not have seen such a mammoth, because no complete skeleton of a mammoth had been unearthed in Britain at the time.[41] However, a skeletal composite of an American mastodon, dubbed the 'Missouri Leviathan', was exhibited at the Egyptian Hall in Piccadilly from the end of 1841 through the summer of 1843, and Carlyle may have seen this exhibit himself, read about it in the London newspapers, or heard about it from Owen, who identified the skeleton as a composite of several mastodons.[42] Most importantly, though, we have here a clear assertion here of the limitations of complete skeletal reconstructions. Such a limit may perhaps be surprising, given Carlyle's enthusiasm for Owen, his interest in Owen's museum, his fetishization of the Naseby relics, and so on. And yet the critique here of such exhibits sounds precisely Carlylean; it points to the underlying ludicrousness of such reconstructions, particularly those that attempt to render the skeleton in a life-like position – I'm thinking here, of course, of Owen's *Mylodon robustus*, the gigantic ground sloth, its skeleton positioned as if it were feeding on the leaves of a tree, which Carlyle would have seen at the Royal College of Surgeons Museum. Even if such reconstructions remain at best ironic Dryasdust attempts at bringing bones to life, the paleontologist does have another approach available: the full-scale restoration of the specimen.[43] Such restorations, like the Iguanodon, Megalosaurus, and Hylaeosaurus figures built by

Benjamin Waterhouse Hawkins under Owen's direction and placed on outdoor display at the permanent Crystal Palace site at Sydenham in 1853, contained no actual fossil remnants of animals at all, and were instead constructed using contemporary materials. While their overall design was based on the current scientific knowledge of the time derived from a careful examination of fossil remains, many aspects of the creature's appearance, such as skin texture or color, were simply imagined. And when the skeletal remains themselves were only partial, as was the case with the Megalosaurus restoration, many more crucial aspects of the animal's physiognomy were left to conjecture, including its exact size, whether it was primarily a biped or a quadruped, and so on.

At the very end of the 'Bog of Lindsey' piece, however, Smelfungus raises the possibility of a third approach, one that combines the facticity and veracity of skeletal reconstruction with a miraculous reanimation that goes beyond full-scale paleontological restoration: 'If History be the sister of Prophecy, if Past be Divine as Future, and Time on his mysterious bosom bear the two, as Night does her twins, then History also is miraculous. Not lightly shalt thou persuade me to write a History of Oliver! Is it I that can bid full muscles, skin and life, clothe these dry fossil bones; the half-eaten reedgrass furnish itself with new gastric juices; and create an appetite under the ribs of death!' (65). Phrased as a question, though punctuated with an exclamation point, this statement is a fascinating example of Carlyle's conflicted attitude toward the Cromwell project. It is an imperative to work a miracle, to overlay dead relic with living tissue, but also an expression of doubt concerning his ability ever to succeed at such a task. In this case, his doubt appears to have carried the day, and Carlyle ultimately rejected the idea of a full resurrection or reanimation of the dead. As Fielding notes, a draft of the 'Bog of Lindsey' essay in the Forster Collection includes Carlyle's comment 'Hardly do, this!' (Fielding 61 n.13), and Carlyle permanently set aside this and other essays pertaining to his work on a history of seventeenth-century England in late 1843/early 1844, when he decided instead to edit a collection of Cromwell's letters and speeches.[44] Nonetheless, despite his rejection of this reanimation of the dead (or perhaps because of it), Carlyle has found in the 'Bog of Lindsey' his guiding image for the Cromwell project. Cromwell will become his fossil mammoth, his Mylodon robustus, or, if you will, his Victorian dinosaur, dredged up from the deep, dark 'Quagmire of History' (*CL* 18:157), to be reconstructed and exhibited for the world to see.

Carlyle's difficulties with the Cromwell project are well known. Intended at first to be some sort of history of the English Civil War, then

later a biography of Oliver Cromwell, Carlyle eventually settled on the idea of editing Cromwell's letters and speeches, weaving them together with 'elucidations'. But this decision came only after several years of frustrating labor. How, then, did the friendship with Owen and the intellectual insights that it generated help Carlyle to resolve his impasse with the Cromwell project, and thus to see that project in a new light? He approached his subject paleontologically; the task before him thus became an excavation, followed by a careful preparation of the recovered materials, their 'articulation', skeletal reconstruction, and exhibition. Recognizing that a full-scale reanimation of the sort Smelfungus refers to at the end of the 'Bog of Lindsey' essay is an utter impossibility, Carlyle ultimately settles for a compromise in Cromwell, where excavation and articulation are deemed satisfactory (indeed, necessary), but only when coupled with a gesture toward a more limited restoration in the form of 'elucidations'.

The sense in which the historian's task is primarily one of excavation is made abundantly clear in the opening 'Anti-Dryasdust' chapter of the *Letters and Speeches*.[45] Within the first three pages, Carlyle describes at length the enormous mounds of documents and pamphlets – 'huge piles of mouldering wreck' (6:2) – through which the intrepid historian must trek in search of the facticity of the past: 'Dreariest continent of shot-rubbish the eye ever saw. Confusion piled on confusion to your utmost horizon's edge: obscure, in lurid twilight as of the shadow of Death; trackless, without index, without finger-post, or mark of any human foregoer; – where your human footstep, if you are still human, echoes bodeful through the gaunt solitude, peopled only by somnambulant Pedants, Dilettants, and doleful creatures, by Phantasms, errors, inconceivabilities, by Nightmares, pasteboard Norroys, griffins, wiverns, and chimeras dire! There, all vanquished, overwhelmed under such waste lumber-mountains, the wreck and dead ashes of some six unbelieving generations, does the Age of Cromwell lie hidden from us' (6:3).[46] This remarkable passage, with its description of the radical 'otherness' of the terrain of history, offers us the past as an ironic terra incognita, fraught with the sort of dangers an explorer might encounter: the possibility of becoming lost, the dehumanizing effect of utter solitude, the hostility of native inhabitants. 'All past Centuries have rotten down,' remarks Carlyle, 'and gone confusedly dumb and quiet' (6:7). The historian's first task is thus necessarily one of excavation, followed by the preparation and articulation of long-buried material.[47]

At the beginning of chapter two of his introduction, Carlyle metaphorizes his task in precisely this way: 'These authentic utterances of the

man Oliver himself – I have gathered them from far and near; fished them up from the foul Lethean quagmires where they lay buried; I have washed, or endeavoured to wash them clean from foreign stupidities (such a job of buckwashing as I do not long to repeat); and the world shall now see them in their own shape' (6:12). In apparent contrast to the conflicted, paradoxical metaphorics of excavation, exhumation, and articulation in Book 2 of *Past and Present*, Carlyle's task as the historian-cum-paleontologist is here rendered perfectly, yet deceptively, simple. It is as if he need only offer up the dead letter 'bones' of Cromwell – merely clean and display them – in order to best represent the truth of the man. For what is wanted, writes Carlyle, is 'their own shape', something that the readers can discern for themselves. And yet this process is not so simple: the bones must be arranged, ordered, properly articulated, joined together into a framework. And this 'shape' Carlyle wishes to reconstruct and put on display, of course, is that of Cromwell himself. As Carlyle states in chapter five of his introduction, 'I have ventured to believe that, to certain patient earnest readers, these old dim Letters of a noble English Man might, as they had done to myself, become dimly legible again; might dimly present, better than all other evidence, the noble figure of the Man himself again' (6:76). This statement, echoing Carlyle's heavily qualified claim of direct inspection of the past in *Past and Present* ('where an extinct species, though fitfully, might be seen alive') nevertheless affirms that the best evidence we have is, in a sense, 'fossil' evidence; the letters themselves convey to us the most direct information regarding the shape of Cromwell. But given the thrice-repeated qualification that such evidence yields a shape that is only 'dimly' perceivable, we also have an acknowledgment that the dredging up, cleaning, and displaying of Cromwell's 'remains' may not be enough to render a fully discernible image of the man. The fossil record, after all, is partial (at the time of Carlyle's writing, Cromwell's earliest extant letter is dated January 1635, when he was already thirty-five years old; the second extant letter is dated nearly four years later, and the next more than a year after that), and the various names, places, and events mentioned in the letters, of course, require historical and cultural contextualization for the modern reader.

For this reason, Carlyle believed the exhibition of Cromwell's metaphorical fossil remains needed the proper 'lighting' or 'elucidation', a context that would enhance and clarify, rather than distort, the figure of Oliver. In this way, the collection and chronological arrangement of Cromwell's letters constitutes a kind of paleontological reconstruction, with the elucidations functioning as a gesture toward restoration, toward the generation of a clearer, fuller image of 'the

figure of the Man himself', beyond just the 'bare bones' of the extant letters and speeches. As Trela puts it, 'the historian or editor cannot literally resurrect that which is dead, but can … recover a simulacrum of what once lived' (136). By adopting a paleontological approach to Cromwell, Carlyle self-consciously generates just such a simulacrum, a 'figure of the Man himself'.

By generating such a figure, Carlyle intended to combat the prevailing view of Cromwell as a dissembling, hypocritical, power-hungry tyrant, offering the Protector's own letters and speeches as direct, material evidence of what Carlyle took to be Cromwell's heroic, principled, God-fearing leadership. Cromwell's significance, according to Carlyle, lies in his historical function as a hero of his time, and this emphasis on function is itself mirrored in Carlyle's view of his own text as having a practical end. As Louise Young has observed, 'Carlyle's esthetic theory was in harmony with the rest of his philosophy in elevating the functional aspect of the relationship between form and function to a primary position' (110-11). If, as Carlyle claimed, *On Heroes, Hero-Worship, and the Heroic in History* is a taxonomy of 'Six classes of Heroes'[48] then *Oliver Cromwell's Letters and Speeches* is a paleontological 'memoir' that offers us the Cuverian or Owenian functionalist reconstruction of an extinct specimen. Carlyle's Cromwell, like Owen's *Mylodon* in the Hunterian Museum, seeks to combat competing notions of the creature's characteristics and habits through the reconstruction and exhibition of the creature's skeletal remains in context (Owen posed the *Mylodon* upright against a tree trunk, as if feeding on leaves), 'so as to leave little to the imagination in realizing a complete idea of the once living figure' (Owen, *On the Extent* 67).

Moreover, functionalist reconstructions are 'a monument to the principle of the coordination of parts', which stipulates that each element of the animal's anatomy will cohere in a mutual 'functional integration' (Rudwick 113, 104). As Rudwick explains, 'any animal that followed a carnivorous mode of life could be expected to possess not only teeth suitable for a diet of flesh but also, in correlation with that character, claws suitable for catching and holding its prey' (104). Each part of the animal's body functions as a sign of all the other parts, and '[t]he correlation of parts thus became, with fossil material, a heuristic principle with predictive value' (113). The paleontologist does not need, then, a complete skeleton in order to arrive at an idea of the whole; in fact, part and whole are reversible signs of each other within the functionalist paradigm. Similarly, Carlyle as historian/editor does not need all of the letters to reconstruct the 'whole' Cromwell. When the extant letters and speeches are shown to 'correlate' with each other to produce the

unified figure of a heroic man, any additional letters subsequently discovered merely reiterate the figure already (re)constructed; such letters are simply redundant, even superfluous. This is precisely Carlyle's position regarding Cromwell's letters that were discovered after the publication of the first edition of the *Letters and Speeches*. In the preface to his second edition of *Cromwell*, Carlyle assures his readers that these recently 'disinterred' letters 'were not, in general, of much, or almost any intrinsic importance; might here and there have saved some ugly labour and research, had they been known in time; but did not now, as it turned out, tend to modify, in any essential particular, what had already been set down, and sent forth to the world' (6:v).

Having thus resolved his Cromwell difficulties by adopting a paleontological approach to the past, Carlyle appears to have had no further use of this particular rationale; paleontological metaphors all but disappear from his subsequent writing. The 'megatherion' returns for a cameo appearance in *Latter-Day Pamphlets*, but there the gigantic sloth is transformed into a sign of a lumbering monstrosity, rather than a metaphor for history. While *The French Revolution*, *Oliver Cromwell's Letters and Speeches*, and *Frederick the Great* are often cited as Carlyle's great historical triumvirate, in fact Cromwell bears a much closer resemblance to Book 2 of *Past and Present* than to either of his other formal histories. Like Jocelin's chronicle, Cromwell's letters and speeches require the skills of the historian-as-paleontologist, the excavator and 'articulator' of literary remains. Carlyle's encounter with Richard Owen in August of 1842, his visit to the Hunterian Museum, and his acquisition of the Naseby relics in September – occurring as they do in the midst of Carlyle's Cromwell struggles and immediately prior to both his reading of the Chronicle of Jocelin of Brakelond and the writing of Book 2 of *Past and Present* – these events, as I have argued, stimulated Carlyle to reconceive his role as historiographer and eventually enabled him to arrive at a workable, functionalist, self-consciously paleontological solution to his Cromwell project.

But if Cromwell is Carlyle's *Mylodon robustus*, his 'megatherion', then surely the Carlyle/Owen relationship is mine. For I too have adopted the method of the paleontologist, unearthing the available (often fragmentary) evidence, then articulating those pieces of evidence into an identifiable 'figure' – a representation or reconstruction, if you will, not only of a friendship, but also of a neglected disciplinary intersection between the fields of Victorian science and letters. There are limitations to such reconstructions, of course, as Carlyle especially was aware.[49] And yet, as I hope to have shown, the critical excavation of such disciplinary intersections, embedded as they are within the stratigraphic layers

of Victorian cultural history, can bring to the surface significant, and previously unexamined, interdisciplinary exchanges of ideas and methodologies.

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Endnotes

1. Kevin Padian, 'The Rehabilitation of Sir Richard Owen', *BioScience* 47:7 (July-August 1997), 33 pars., *Infotrac*, Mansfield University. 23 November 2002 <http://web7.infotrac.galegroup.com> para 18.
2. J.A. Froude, *Thomas Carlyle: A History of His Life in London 1834-1881*, 2 vols (London: Longmans, Green, 1897), 1:292-4.
3. Carlisle Moore and George Levine, for example, have both produced excellent work on Carlyle's view of science in the 1820s and early 1830s, paying special attention (for obvious reasons) to *Sartor Resartus*, which was published more than ten years prior to Carlyle's initial meeting with Owen (See Moore, 'Carlyle and Goethe as Scientist', *Carlyle and His Contemporaries: Essays in Honor of Charles Richard Sanders*, John Clubbe (ed.) (Durham: Duke University Press, 1976), 21-33, and 'Carlyle and the Torch of Science', *Norman and Charlotte Strouse Lectures on Carlyle and His Era, Volume I*, Jerry D. James and Charles S. Fineman (eds) (Santa Cruz: The University Library UC Santa Cruz) 1982; and Levine, 'Defining Knowledge: An Introduction', *Victorian Science in Context*, Bernard Lightman (ed.) (Chicago: Chicago University Press, 1997), 15-23. In 'Victorian Scientific Naturalism and Thomas Carlyle', *Victorian Studies* 18.3 (March 1975), 325-43, Frank Turner, by contrast, takes up Carlyle's influence on a later generation of scientists, especially John Tyndall and T.H. Huxley.)
4. Nicloaas Rupke, *Richard Owen: Victorian Naturalist* (New Haven: Yale University Press, 1994). In her recent book *Literature and Medicine in Nineteenth-Century Britain: From Mary Shelley to George Eliot* (Cambridge: Cambridge University Press, 2004), Janice Caldwell devotes a chapter to a discussion of the affinities between Carlyle's 'natural supernaturalism' in *Sartor Resartus* and Owen's transcendental anatomy; indeed, she argues that 'they are at bottom the same doctrine' (55). Caldwell's chapter is essentially comparative in its approach; it does not argue that Carlyle influenced Owen or vice versa, nor does it pursue the personal relationship between the two men beyond the fact that they shared 'a personal and intellectual respect for one another' (50). Such matters ultimately lie outside Caldwell's focus on the way Carlyle especially, but also Owen, sought to engage religious and scientific discourse in a 'vigorous dialectic' (46).
5. Stephen Jay Gould, *The Structure of Evolutionary Theory* (Cambridge: Harvard University Press, 2002), 252. As Gould notes, the functionalists are primarily British, and the formalists French and German, though Cuvier and Owen are important exceptions to this rule. In addition, we must not understand this dichotomy as comprising opposed, mutually exclusive epistemologies; instead, as Gould is careful to explain, the difference is really a matter of emphasis.
6. See Rupke, 163-4 and Martin J.S. Rudwick, *The Meaning of Fossils: Episodes in the History of Palaeontology* (Chicago: Chicago University Press, 1985), 210-11. Rupke says that Owen's initial work on transcendental morphology began in 1841 and was performed in connection with his cataloguing of the Hunterian Museum's osteological collection (published in 1853), and that his Hunterian lectures for 1841 and 1844-48 were 'spin-offs of this basic museum work'. But his most important publi-

cations on transcendental morphology, as Rupke acknowledges, did not appear until the second half of the decade, first with the BAAS report on the archetype (1846), then the book version of the BAAS report, *On the Archetype and Homologies of the Vertebrate Skeleton* (1848), followed by the publication of *On the Nature of Limbs* (1849). As Rupke observes, '[t]he publication history of these [texts] is a characteristic illustration of how Owen developed and publicised his ideas' about transcendental morphology (163). At the time of Owen's meeting with Carlyle in August 1842, in other words, Owen's transcendental morphology was in its nascent state, overshadowed by Owen's paleontological work in the Cuvierian functionalist mode. Only later in the decade did Owen's formalist comparative anatomy become fully developed, and take precedence over (but not entirely eliminate) Owen's functionalist paleontological work.

7. Thomas Carlyle, and Jane Welsh Carlyle, *The Collected Letters of Thomas and Jane Welsh Carlyle*, Charles Richard Sanders, Kenneth J. Fielding, Clyde de L. Ryals, *et al.* (eds), 28 vols (Durham: Duke University Press, 1970-2000), 15:51. Hereafter cited parenthetically and abbreviated *CL*.
8. Richard Startin Owen, *The Life of Richard Owen*, 2 vols. (New York: D. Appelton, 1894), 1:197.
9. In Desmond's book, for example, the image's caption implies that the engraving depicts the Hunterian Museum as it appeared in 1837 (*The Politics of Evolution Morphology, Medicine, and Reform in Radical London* (Chicago: Chicago University Press, 1989), 253).
10. The dates are given in the description of the museum that accompanies Shepherd's image in the volume *London Interiors: A Grand National Exhibition of the Religious, Regal, and Civic Solemnities, Public Amusements, Scientific Meetings, and Commercial Scenes of the British Capital* (London, 1841-45), 131. The 1841 date of excavation for the Mylodon robustus is corroborated in Owen's *Descriptive and Illustrated Catalogue of the Fossil Organic Remains of Mammalia and Aves Contained in the Museum of The Royal College of Surgeons of England*, (London, 1845), 63. For a full description and analysis of the Mylodon skeleton see Owen's *Description of the Skeleton of an Extinct Gigantic Sloth, Mylodon robustus, Owen, with Observations on the Osteology, Natural Affinities, and Probable Habits of the Megatherioid Quadrupeds in General* (London, 1842). See also the shorter entry on the Mylodon skeleton in the *Descriptive and Illustrated Catalogue of the Fossil Organic Remains of Mammalia and Aves*, 63-6. For a description of the Glyptodon carapace, see the *Descriptive and Illustrated Catalogue*, 116-17, and plates 1-2.
11. My thanks to Simon Chaplin, senior curator of the Museums of the Royal College of Surgeons of England, for the precise date that the completion of the Mylodon articulation was reported to the Board.
12. See Owen, *The Zoology of the Voyage of the H.M.S. Beagle. Part I: Fossil Mammalia* in *The Works of Charles Darwin* (ed.), Paul H. Barrett and R.B. Freeman (New York: New York University Press, 1987), 5-145, 128-42.
13. Rebecca Stott, 'Thomas Carlyle and the Crowd: Revolution, Geology, and the Convulsive Nature of Time', *Journal of Victorian Culture* 4:1 (Spring 1999), 1-24, 6. See also Rosemary Jann, who notes that '[f]or Carlyle change was fundamentally catastrophic rather than gradualist, having more in common with the conversion experience than with uniformitarianism'; *The Art and Science of Victorian History* (Columbus: Ohio State University Press, 1985), 39.
14. It remains unclear whether Carlyle refers here to Lyell's *Principles of Geology* (1830-33) or *Elements of Geology* (1838).
15. Horace N. Pym (ed.), *Memories of Old Friends: Being Extracts from the Journals and Letters*

of Caroline Fox of Penjerrick, Cornwall, from 1835 to 1871 (Philadelphia: Lippincott, 1882), 227.

16. Owen Collection, OC 62/6/302-303, Natural History Museum, London. By permission of the Trustees of the Natural History Museum.
17. Owen did walk down Wilton Street two days later, but by then the bones had been sold to a dealer, for 'grinding up, not for scientific progress' (MS 3218, f. 116; by permission of the Trustees of the National Library of Scotland).
18. See also letters to Laing (*CL* 15:97) and Milnes (*CL* 15:117-18) for expressions of similar sentiments.
19. Even so, whatever fascination the relics held for Carlyle, they did not facilitate his writing on Cromwell. As Jane Carlyle explains in a 3 November letter to Caroline Fox's sister Anna Marie, 'My Husband is deep in his Cromwell indeed *beyond* his depth in it – to judge from the spluttering and crying out he is making! – Plainly he needs some further inspiration than he has got yet – even from his pilgrimage into Suffolk, or from the contemplation of three jaw-teeth and a shin-bone which he has had dug for him out of the field of Naisby (sic)! – Whether he might find such in the Cannon ball I cannot pretend to say – but for my part, I should much more willingly give *it* house-room than the Naisby-relics' (*CL* 15:164). Fox had written offering to send Carlyle 'a real relic of Oliver … – a Cannon Ball which he shot at us himself' (*CL* 15:164 n.3). Although Jane asserts that Carlyle is 'deep in his Cromwell', by this time (the first week of November 1842), he had already embarked on the initial writings that would become Book 2 of *Past and Present*. The shin-bone Jane refers to is most likely an arm-bone, identified as such on brief notes Carlyle attached to the Naseby relics when he gave them to John Childs. The relics are currently housed in the Strouse collection at the University of California, Santa Cruz.
20. Carlyle did not, however, accept an invitation from a friend of Charles Hutton Gregory's to view the head of Oliver Cromwell in early November 1842. Skeptical that the head was actually Cromwell's, Carlyle did express interest in seeing the 'anatomical specimen' (*CL* 15:161), but never made the journey to Camberwell to view it. According to the editors of the Carlyle letters, it seems the head really was Cromwell's, owned at the time by Josiah Wilkinson (*CL* 15:162 n.1).
21. Richard Owen, *On the Extent and Aims of a National Museum of Natural History* (London, 1862), 67.The *Megatherium americanum* skeleton went on display at the British Museum in 1850. On 16 December 1850, Owen wrote to Carlyle: 'Has Mrs. C. seen the Nineveh Spoils? Have you seen the Megatherium? What could we not see from 2 to 4 at the Br[itish] Mus[eum] where I have entré on a private day, & afterwards here [at the Royal College of Surgeons]' (MS 655, no. 69, National Library of Scotland). Carlyle replied two days later: 'We have done little in the Assyrian way, either my wife or I; and independently of Layard's or Nebuchadnezzar's big Bull, we should both of us much [court?] the acquaintance of any authentic *Megatherium*, or antique Bull of God Almighty's sculpturing' (Acc 11637, National Library of Scotland). By permission of the Trustees of the National Library of Scotland.
22. Claudine Cohen, *The Fate of the Mammoth: Fossils, Myth, and History*, 1994, trans. William Rodarmor (Chicago: Chicago University Press, 2002), 116-17.
23. Richard Schoch, '"We Do Nothing But Enact History": Thomas Carlyle Stages the Past' *Nineteenth-Century Literature* 54:1 (June 1999), 27-52, 18.
24. Louise Merwin Young, *Thomas Carlyle and the Art of History*, 1939 (New York: Octagon, 1971), 116.

25. Ann Rigney, 'The Untenanted Places of the Past: Thomas Carlyle and the Varieties of Historical Ignorance', *History and Theory* 35:3 (1996), 338-57, 342.
26. Suzy Anger (ed.), *Knowing the Past: Victorian Literature and Culture* (Ithaca: Cornell University Press 2001), 3.
27. William Baker, *The Early History of the London Library* (Lewiston: Mellen, 1992), 119.
28. Thomas Carlyle, *Past and Present*, ed. Richard D. Altick (New York: New York University Press, 1965), 49.
29. The Hunterian Museum's collection also included the fossilized remains of a variety of Mastodon species; many of the fossils were of teeth and jaw portions, but there were also tusks, femurs, tibiae, vertebrae, and other bones. See Owen's *Descriptive and Illustrated Catalogue of the Fossil Organic Remains of Mammalia and Aves* 161-188 for a complete listing of the individual Mastodon fossils.
30. Thomas Carlyle, 'On History', in *Historical Essays*, vol. 3 of *The Norman and Charlotte Strouse Edition of the Writings of Thomas Carlyle: Historical Essays* (ed.), Chris R. Vanden Bossche (Berkeley: University of California Press, 2002), 8. For a full analysis of Carlyle's hermeneutic approach to history-as-text, see Joseph Childers, 'Carlyle's Past and Present, History, and a Question of Hermeneutics', *CLIO* 13:3 (1984) 247-58.
31. Carlyle misspells 'megatherium' as 'megatherion'; in doing so, he appears to adopt an alternative or non-standard spelling current in the first part of the nineteenth century that may have resulted from a transliteration of the word's Greek derivation: *mega* (large) and *qhrion* (beast). Carlyle's (mis)spelling does not appear to be the result of printer error; in fact, Carlyle's manuscript of *Past and Present* housed at the British Library clearly reads 'megatherion' (Mss. Add. 41641, f. 9).
32. On this point see also John D. Rosenberg, *Carlyle and the Burden of History* (Oxford: Clarendon, 1985), who describes Book 2 as 'a kind of miraculous exhumation' of Jocelin's *Chronicle* (123), and who notes that '[r]ecovering Jocelin's long-buried world requires digging down through archaeological and linguistic strata' (124).
33. Given his paleontological language early in Book 2, it should not surprise us that this self-consciously paradoxical view of history is best represented in *Past and Present* in the ceremonial exhumation of the dead body of St. Edmund, a ritual exercise that I have argued elsewhere simulates direct contact with historical 'fact' while simultaneously preserving the border that separates the past from the present (John Ulrich, *Signs of Their Times: History, Labor, and the Body in Cobbett, Carlyle, and Disraeli* (Athens: Ohio University Press, 2002), 74-80).
34. Carlyle's metaphorization of Jocelin's chronicle as a 'camera lucida', a device that projects an object's image onto a flat surface so it may be traced, foregrounds the way in which our apprehension of the past through the written word *appears* direct, but is really mediated and ultimately indirect and displaced (see Ulrich 74).
35. K.J. Fielding, 'Carlyle and Cromwell: The Writing of History and "DRYASDUST".' *The Norman and Charlotte Strouse Lectures on Carlyle and His Era, Volume 2* (Santa Cruz: The University Library, University of California, Santa Cruz, 1985), 45-67, 63 n.23).
36. Dale J. Trela, *A History of Carlyle's 'Oliver Cromwell's Letters and Speeches'* (Lewiston: Mellen, 1992), 31.
37. The outlines or 'lists' are quoted in Trela 32.
38. Thomas Carlyle, 'Bog of Lindsey', in *Historical Sketches of Notable Persons and Events in the Reigns of James I. and Charles I* (ed.), Alexander Carlyle, 4th edn (London: Chapman and Hall, 1902), 58.
39. 'Geological Lectures', *Times*, 11 March 1843: p. 6 col. 5. As the editors of the Carlyles' *Collected Letters* note, Lyell delivered eight lectures from 7-31 March, 'at the Maryle-

bone Inst., where TC had lectured, 1838-40' (*CL* 16:71n.4). Carlyle's comments on Lyell in the *Collected Letters* are brief and negative. On 9 March he writes to John Sterling, 'I am attending a Lyell's Course of Lectures on Geology, too; – in our old shop up in Edwardstreet Portman Square. The audience a square-jawed harsh male company of near 200; the Lecturer clear – but of kin to Neptune, I fear!' (*CL* 16:71). On 15 March Carlyle writes to Emerson, 'I have undertaken to hear Lyell lecture on Geology; – a somewhat superfluous enterprise, at once wearisome and ineffectual; our Geologist being dreadfully *Neptunean* in his qualities, I fear!' (*CL* 16:86). The epithet 'Neptunean' is most interesting; the editors of the *Collected Letters* read this as 'watery' (*CL* 16:71 n.5), meaning that Lyell's lectures presumably lacked substance in Carlyle's opinion, as borne out in his comments to Emerson. 'Neptunean', though, may also be an ironic pun on (or perhaps a confused reference to) Lyell's Huttonian uniformitarianism. The followers of Hutton's theory of the earth were dubbed 'Plutonists'; the followers of Werner bore the label 'Neptunians'. Despite Carlyle's low opinion of Lyell as a lecturer, we know from a letter to Jane that he began reading Lyell in mid-July: 'Alas, this morning I am reduced to *Lyell's Geology*, a twaddling, circumfused *ill*-writing man; I seem to hear his uninspired voice all along, and see the clear-*leaden* twinkle of his small bead-eyes! However, I must persist a little' (16:260).

40. See Charles Lyell, *Principles of Geology*, 3 vols (Chicago: Chicago University Press 1990-1), 2:218.
41. Although mammoth bones and teeth were commonly found throughout England in the first half of the nineteenth-century (Cohen 125), complete skeletons were elusive. Buckland states in his *Reliquiae Diluvianae* 1823, reprint (New York: Arno Press, 1978) that bones of mammoths 'have not been found united in entire skeletons' (175).
42. A rather skeptical notice of the Missouri Leviathan exhibition appeared in the 31 December 1841 edition of the *Times*: p. 5, col. 1: 'The skeleton measures 20 feet in length, and 15 in height. In consequence of its being much larger than the fossil remains of any animal yet seen many supposed that it was not genuine, and that instead of being one entire skeleton it was composed of the bones of many animals. We are not surprised at this notion, for the very clumsy and unscientific manner in which the bones are articulated would naturally suggest such an idea.' Owen went on to disclose that it was indeed a fraudulent composite.
43. On the distinction between paleontological reconstruction and full-scale restoration, see W.J.T. Mitchell, *The Last Dinosaur Book: the Life and Times of a Cultural Icon* (Chicago: University of Chicago Press, 1998), 126-7.
44. See Alexander Carlyle's preface to *Historical Sketches* (esp. vi-vii) and Trela 31-3, 39-44.
45. *Oliver Cromwell's Letters and Speeches With Elucidations*, in volumes 6-9 of *The Works of Thomas Carlyle in Thirty Volumes*, ed. H.D. Traill (New York: AMS Press, 1974); citations will be given as volume number and page.
46 . The 'Anti-Dryasdust' chapter alternates between the voice of Carlyle as editor of Cromwell's letters and speeches, and that of 'a well-known Writer long occupied on the subject' (6:1) of the English Civil War. This latter writer is, of course, Carlyle as well, and it is through the voice of this 'impatient friend' (6:3) that Carlyle expresses most vehemently his frustrations with archival research and the obfuscations of Dryasdust pedants, as evidenced in the quotation under consideration here.
47. This is not the first time Carlyle has metaphorized archival research as digging through mounds of rubbish. As Chris Vanden Bossche has noted, such metaphors

occur in a number of Carlyle's historical essays, beginning with 'The Diamond Necklace' in 1837 (see Carlyle, *Historical Essays*, 516 n.94, 24-27 and 639 n.241, 16-17). But the figuring of Cromwell as fossilized bone to be excavated, cleaned, articulated, and displayed is a new metaphor for Carlyle, and can be traced (as I'm arguing here) back through the 'Bog of Lindsey' and Book 2 of *Past and Present* to Carlyle's encounter with Richard Owen and the Hunterian Museum in August 1842.

48. Thomas Carlyle, *On Heroes, Hero-Worship, and the Heroic in History*, vol. 1 of *The Norman and Charlotte Strouse Edition of the Writings of Thomas Carlyle* (ed.), Michael Goldberg (Berkeley: University of California Press, 1993), 4.
49. In my own case, I have relied on printed text and manuscript evidence, particularly where the Carlyle/Owen correspondence is concerned, but unfortunately very little of the correspondence has survived – this is especially true regarding their communication during the 1840s, the period with which I am most concerned. Jacob Gruber suspects that many, perhaps most, of Carlyle's letters to Owen (and those to Owen from other literary figures) were broken up and sold at the turn of the century; Jacob W. Gruber and John C. Thackray, *Richard Owen Commemoration.* (London: Natural History Museum Publications, 1992), 13.