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DOI:

[10.29311/mas.v17i3.3219](https://doi.org/10.29311/mas.v17i3.3219)

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Document Version

Publisher's PDF, also known as Version of record

Citation for published version (Harvard):

Kistler, J & Tattersdill, W 2019, 'What's your dinosaur? or, imaginative reconstruction and absolute truth in the museum space', *Museum & Society*, vol. 17, no. 3, pp. 377-389. <https://doi.org/10.29311/mas.v17i3.3219>

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What's your dinosaur? Or, imaginative reconstruction and absolute truth in the museum space

Jordan Kistler*, Will Tattersdill**

It's worse in the summer, so many more pairs of eyes. They never think we mind, but we do. I mind particularly being stared at.

Crystal Palace Iguanodon (Coates 15)

When Stephen Greenblatt used the terms 'resonance' and 'wonder' to describe the museum experience, he was differentiating between the feeling generated from an object in itself, without the help of labels, catalogues, or prior knowledge, and the understanding that comes from placing the object within its historic or cultural context (Greenblatt 1990). Thus, 'wonder' is created by 'the artwork's capacity to generate in the spectator surprise, delight, admiration, and intimations of genius' (32). The feeling is explicitly dependent on *not knowing*: it is 'the movement of the man who does not know on his way to finding out' (34). Resonance, in contrast,

is the power of the object displayed to reach out beyond its formal boundaries to a larger world, to evoke in the viewer the complex, dynamic cultural forces from which it has emerged and for which—as metaphor or, more simply, as metonymy—it may be taken by a viewer to stand (19).

Greenblatt compared 'resonance' to the literary-critical practice of new historicism; to achieve resonance, one requires context about the culture and artist that produced the work.

However, in the nineteenth century, it was widely claimed that the museum object *in itself* could evoke both wonder and resonance. For the first half of the century, objects in the British Museum were largely unlabeled, uncatalogued, and unexplained. The official 'synopsis' of the museum – which had to be purchased (for six shillings in the 1830s, or roughly the equivalent of twenty-five pounds in today's currency) – recorded information about the donor of an object, but not its origin, creator, or cultural significance. Despite this, or perhaps because of it, the idea that an object could evoke a 'larger world' without the aid of paratext was current in discussions of the pedagogical function of the museum. Thus, the *Liverpool Mercury* described the museum as 'a great educator', in which there was no need for explanations of the objects:

Though no learned lecturer appears in formal phrase to the ear, the objects themselves do so through the eye; and the materials for thought which present themselves in such varied forms come forth from time to time in new and interesting shapes, after undergoing fusion in the crucible of the mind (March 15, 1853)

The idea of the 'object lesson', which required no teachers or formal schooling, stemmed from a belief in the universal power to 'see through' a museum object to 'a realm of significance which cannot itself be seen' (Bennett 1994: 35). While twentieth-century critics like Bourdieu and Darbel (1991) acknowledge that the aesthetic gaze must be learned, in the nineteenth century it was seen in Kantian terms as both transcendent and universal. In the *Critique of Judgment* (1790), Kant had insisted that the arbiter of taste 'judges not merely for himself, but for everyone, and speaks of beauty as if it were a property of things' (Kant and Bernard 1892: 58). Thus, beauty is embedded in the thing itself and is perceptible to everyone who views it. While Kant focused on beauty, discussions of the nineteenth-century museum extended the qualities that could be universally perceived in an object to include all that Greenblatt's

'resonance' encompasses. Thus, one newspaper insisted that a museum visitor could grasp 'an almost complete picture of the religious, civil, and warlike life of the Assyrian kings' merely from viewing the artefacts discovered in the ruins of Nineveh (*Daily News*, January 13, 1848). The whole truth of the civilization is embedded in each fragmentary object, each of the 'earrings, necklaces, bracelets, arms, thrones, furniture, vases, and the carriages which were in use at the court of Nineveh' (*Daily News*, January 13, 1848). In this way, the aesthetic gaze was thought to allow even the casual viewer to complete a part-to-whole conversion in a process that we will call 'imaginative reconstruction', in which the fragmentary or uncontextualized part is reassembled into an ideal and accurate whole. In what follows, we discuss imaginative reconstruction and absolute truth with especial regard to the use of models in museum displays, using reconstructions of natural history (and in particular of dinosaurs) as a lens through which to scrutinise the nineteenth-century history of this idea and its textual resonances today.

Nineteenth-century belief in imaginative reconstruction is evident throughout the essays of the art critic Walter Pater, as in 'The Myth of Demeter and Persephone' (first published in 1876):

what we actually possess is some actual fragments of poetry, some actual fragments of sculpture; and with a curiosity, justified by the direct aesthetic beauty of these fragments, we feel our way backwards to the engaging picture of the poet-people, with which the ingenuity of modern theory has filled the void in our knowledge. (Pater 1895: 113)

Though Pater doesn't say how we are to 'feel our way backwards', the language of the passage links imaginative reconstruction with objective fact: it is 'modern theory', 'justified' by 'direct' empirical observation. The repetition of 'actual' ties the imaginative 'picture' to material reality. Though invisible, the absolute truth of the past is as real as the fragmentary object in front of the viewer. As Csikszentmihalyi and Robinson (1990) explain,

approaches to aesthetics based on the concept of the Platonic ideal stressed the belief that art represents not the limited particularities of the world of appearances but the underlying, eternal forms behind them... Thus the aesthetic experience was seen as the satisfaction of an intellectual need to grasp that which is *really* real (11).

Donald Preziosi notes that the museum encounter not only relies on 'the independent existence and agency of what its objects are taken as signifying' (Preziosi 2012: 83), it *manufactures* this belief through the apparently natural relationship between the object and the signified—a naturalness that we suggest is verified by the choice to exclude labels or other explanatory material from the museum.

Nineteenth-century museums drew a distinction between 'indexical' displays, those which were 'a material trace of the past', like Pater's 'actual fragments', and 'iconic' displays, which offered a mere likeness, such as the historical paintings routinely displayed in the museum (Rieppel 2012: 464). Rieppel notes that 'curators worried that icons were vulnerable to distortion by the subjective and perhaps even erroneous beliefs of whoever had fashioned them' (464). Like icons, labels are a form of human intervention, and could be subject to error or bias. In this way, it was feared that the inclusion of text would destabilize the truth-claims made in the museum. In contrast, the unexplained object was seen to maintain the authority of the indexical: a material trace of the past, the 'actual fragments', here in the present.

As the museum privileged objects over text, so too did those who lauded the museum as a potential substitute for more traditional forms of education. Thus, the MP Joseph Hume suggested that the museum could replace literacy itself:

The teaching to read and to write was a most beneficial thing, but the throwing open to the public of such places as the British Museum and the National Gallery, on a day when the great mass of the public could alone avail itself of the benefit, would operate as a still more improving and elevating kind of education (*Daily News*, August 15 1846).

The London *Standard* agreed, asserting that

it must be obvious to everyone, that a glance at the treasure of antiquities and natural history, collected at some much cost, could not fail to do more in awakening the mind of a child (aye, of a child of no more than five or six years old) to the important outline truths of history and philosophy than a year's book-reading (June 07, 1838).

In this understanding of direct engagement, not only does the object require no textual explanation, it actually *supplants* text.

The fantasy of knowledge that could be gained from a mere 'glance' reached its heights in the popular understanding of the feats of identification and reconstruction performed by naturalists of the period, most famously Georges Cuvier and Richard Owen. Owen gained renown in the 1840s for his identification of the *Dinornis*, or moa, from a single fragment of a bone. It was reported that:

a sailor presented at the British Museum a huge marrowbone, which he desired to sell, and which he had brought from New Zealand. The officers of that institution not usually dealing in that class of marine stores, referred him to the College of Surgeons, where, they said, he would find a gentleman—one Professor Owen—who had a remarkable predilection for old bones. Accordingly, the sailor took his treasure to the professor, who, finding it unlike any bone even he had any knowledge of, sent the man away rejoicing with a full pocket—rejoicing himself in the acquisition of a new subject for scientific inquiry (July 20, 1852)

The popular press portrayed the identification of the moa as work which required knowledge only of a single principle of correlation, derived from Cuvier, which suggested that a mere fragment of an animal, such as a single tooth, could reveal the makeup of the whole creature (see Dawson 2016). The language used to describe Owen's feat of induction aligned this principle of correlation with imaginative reconstruction as a form of instantaneous access to truth; popular accounts claimed that Owen identified the moa at 'first inspection' (*Freeman's Journal*, August 23, 1843), from 'merely seeing the portion of bone' (*The Morning Post*, August 23, 1843). Owen encouraged this myth, referring to his deduction as 'prevision of an unseen part' (Dawson 2016: 124), suggesting a kind of supernatural second sight that allows the unseen to become visible.

Though this language appears to uphold the power of the aesthetic gaze and the truth of imaginative reconstruction, the 'real story' of the moa undermines the museum's insistence that objects could speak for themselves. The newspaper account above insisted that Owen had no prior knowledge on which to base his induction—'finding it unlike any bone even he had any knowledge of'—and his friend William Broderip corroborated this claim, stating that Owen was 'a man in the dark with the exception of the glimmering that he could collect from that fragment' (quoted in Dawson 2012). However, in actuality, Owen's assessment that the bone fragment came from a large, flightless, now-extinct bird was based on extensive comparison with and knowledge of extant species, as Owen reported to the members of the British Association for the Advancement of Science (*The Morning Post*, August 23, 1843). The museum's insistence on the power of the aesthetic gaze to penetrate to the truth of the object serves to elide the labour and education required to place an object into its appropriate context, and falsely suggests that everyone should be able to access truth without context, paratext, or prior knowledge. The truth of Owen's expertise and labour undermines the central premise of the museum's object lessons.

Further destabilizing the truth of the object is the story that Dawson describes in *Show Me the Bone*: that the man who sold Owen the fragment of bone had *already* identified it as belonging to a large, extinct bird (97). The sailor ascribed his successful identification of the *Dinornis* to his knowledge of local New Zealand folklore and legends, which were populated with giant birds. It is in narrative, then, that the story of the moa is found—whether in the form of folklore or the personal and journalistic accounts which spun the legend of Owen's prophetic gaze—narratives which speak for, and over, the actual material object.

The layers of fiction that underpin the myth of the moa reveal that there is no one truth to be found in the museum. The instability of the 'story' of the moa is apparent in the passing reference to Owen that appears in William Makepeace Thackeray's 1854 novel *The Newcomes: Memoirs of a Most Respectable Family*, in which he compares the work of the novelist to that of natural historians:

As Professor Owen or Professor Agassiz takes a fragment of a bone, and builds an enormous forgotten monster out of it, wallowing in primaeval quagmires, tearing down leaves and branches of plants that flourished thousands of years ago, and perhaps may be coal by this time—so the novelist puts this and that together (Thackeray 1854: 81).

In this metaphor, 'the feelings in a young lady's mind' are analogous to 'the forgotten monster of the past': they are both plausible fictions. If the museum is a substitute for text, it is only because it, too, is a constructed narrative, fiction rather than reality. The narrator insists that his novel is 'not less authentic' than the work of Owen or Agassiz—by extension, then, Owen and Agassiz's work is *no more* authentic than Thackeray's fiction. In this way, Arthur Pendennis, the novel's narrator, guards against accusations that his tale is grounded in speculation by pointing out how readily the public accepts this kind of imaginative work within the sciences.

Rieppel notes that reconstructions of extinct species, like the moa, present a unique problem to museums because they 'rel[y] on a great deal of contested knowledge about the anatomy, life history, and behavior of strange and long-extinct animals to which curators had no direct observational access' (Rieppel 2012: 461). However, this is equally true of much of the historical knowledge presented in the British Museum. The public was reminded of the speculative nature of museum 'facts' time and again in the nineteenth century—when the translation of hieroglyphs enabled by the Rosetta Stone rewrote much of ancient Egyptian history, or when the painting of ancient statues seemed to undermine the ideal purity of classical marbles. Each of these incidents served to underscore the fictionality of the fixed and universal truth of the museum object.

The museum responded to the destabilization of its authority by increasingly displaying restorations alongside real artefacts. These models suggest that the museum understood the failure of fragments to speak for themselves; they can be seen as an attempt to literalize the metonymic function of imaginative reconstruction by manifesting the ideal, invisible whole in a visible and material form. Though they are iconic rather than indexical, restorations were deemed preferable to labels because they maintain the fantasy on which the status of the museum as a source of objective empirical truth was based: direct engagement with the object, unmediated by text. Restorations fix the meaning of the fragmentary artefact while disguising the acts of interpretation and imagination that underpin their creation. Like Pater's 'actual fragments' before them, the materiality of the restoration is mobilized in support of the apparent reality of the museum exhibition.

Thus, Waterhouse Hawkins, the creator of the Crystal Palace dinosaurs, suggested that his models simply made visible the invisible truth of Owen's imaginative reconstructions. First, 'the mighty genius of Professor Owen placed the teeth and head before us, with such indisputable characters as united them to the foot-marks, and thus, by induction, placed the whole animal before us'. Yet, for 'the public at large', the fragments in the British Museum 'are literally only dry bones or oddly-shaped stones to the majority who see them' (a description which also misrepresents the nature of the fossil object, as discussed below). It took the 'great enterprise and resources of the Crystal Palace Company' to

revivify the ancient world, to call up from the abyss of time and from the depths of the earth those vast forms and gigantic beasts which the Almighty Creator designed with fitness to inhabit and precede us in this part of the earth called Great Britain (May 18, 1854).

Waterhouse Hawkins speaks of his models as the embodiment of the aesthetic gaze, providing direct access to the Absolute Truth of the past (see also Marshall 2007: 293). To 'restore', of course, merely means to return to a previous condition, and thus suggests that nothing new, speculative, or imaginative has been allowed to enter the equation.

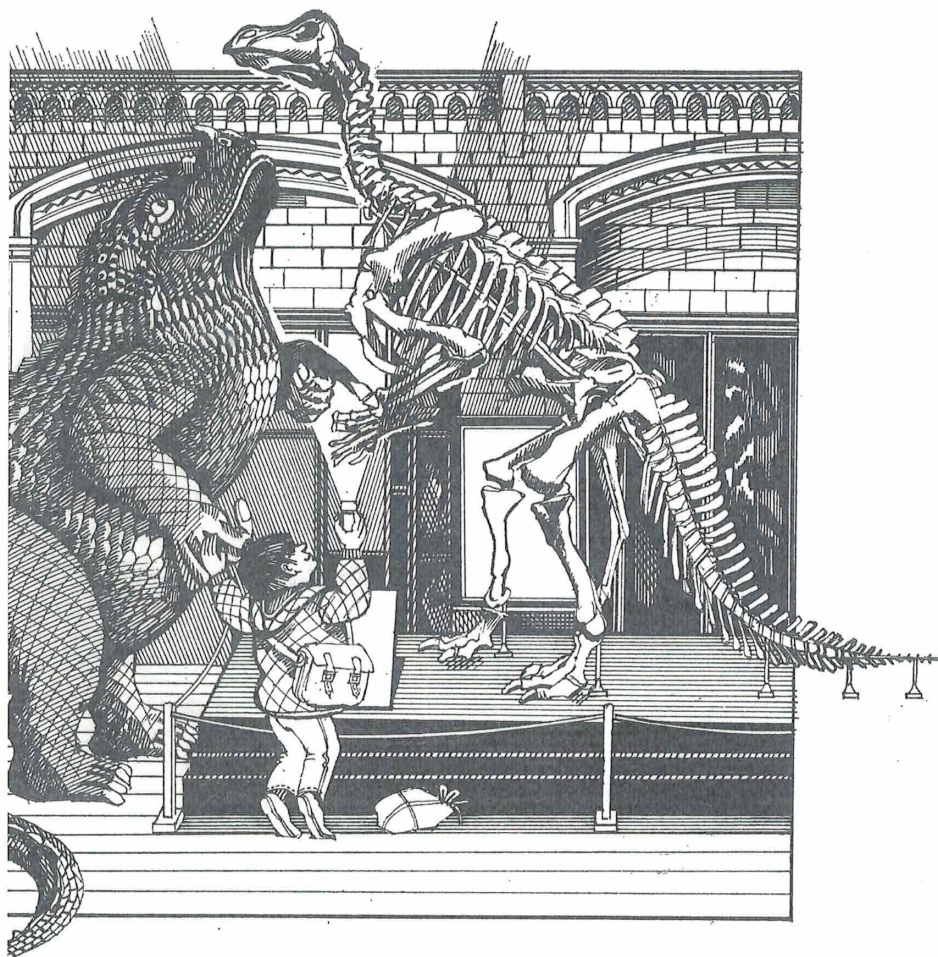


Fig 1. Illustration from Ann Coates's 'Dinosaurs Don't Die' (1970)

Materiality seemed to verify the reality of these models, but it also rendered them dangerous to the truth claims on which the status of the museum and the Crystal Palace were so reliant. While Owen could, for instance, quietly change his predictions about the exact size or shape of the *Dinornis* (his final estimate of the bird's size was far smaller than his first assertion), the Crystal Palace dinosaurs were, as James Secord points out, quite literally set in stone (Secord 2004: 146). Each interpretation of the 'reality' of the past has the potential to be proven wrong, thus further destabilizing the fantasy of direct access to universal truth in the museum encounter. This point is vividly dramatized by Ann Coates's 1970 children's novella *Dinosaurs Don't Die*, in which one of the Crystal Palace statues, brought to life by an unspecified magic, wrestles with its inadequacy as a true representation of prehistoric life.

'What really bothers me', the Standing *Iguanodon* says, 'is being built all wrong. [...] For instance, you see this horn on the end of my nose? Well, it should be my thumb. My *thumb*, if you please! How could anyone be so stupid!' (Coates 1970: 17). The reference is to one of the signal errors in the Crystal Park models—a mistake which generally forms a centerpiece to the popular assumption that they are 'grossly dated' (Switek 2013: 43). Upset at the laughing

stock he has become, the *Iguanodon*—eventually named Rock by his human child companion Daniel—explicitly frames his frustration in terms of the ways in which he fails to stand in for his ‘Ancestors’, a word never deployed in Coates’s text without the capital A.

Personally, most of the time I just stand here on the island wishing I was made of flesh and blood instead of iron and brick. My Ancestors [...] must have been terrific fellows (Coates 1970: 17).

This short speech is revealing as regards Rock’s ontological situation: he is certainly a model—lacking ‘flesh and blood’ even when magically brought to life—and yet the relationship envisaged with the genuine living creatures of the Mesozoic is one of descent, not of imitation. As Daniel tells Rock more about the history of the Crystal Palace dinosaurs, the text portrays the slippery relationship between object and signified: at one point, Rock learns about the dinner party famously held inside him on New Year’s Eve 1853 (‘How dare they hold a dinner party inside me when they’d made me all wrong’, 33), at another he tries an apple in order to learn about the diet of the actual living creatures among which he implicitly counts himself (‘Your Ancestors ate vegetable things, and plants and leaves, not meat’, 28). When Rock asks ‘And how did we get our name, do you know, by any chance?’, the plural could refer both to the presence of the second Crystal Palace *Iguanodon*—silent in the text, beside Rock on the ground in real life—or to the fact that two kinds of different things, one mortar and one bone, have both been given the name *Iguanodon* (25). Rock’s question can mean both ‘how did we statues come to be named after such dissimilar, living animals?’ and ‘how did the group of living animals, of which I am a member, come to be named?’.



Fig 2. Contemporary depiction of *Iguanodon*

‘I am fated never to know what I might have looked like’, Rock declares (34). The conditional here potentially reaches in several different directions: *might*, had I been made accurately; *might*, had I been flesh and blood; *might*, had I myself been one of the Ancestors. Rock’s disjunction could be formal, material, temporal, or all three. At the book’s climax, Daniel takes Rock to the dinosaur hall of the Natural History Museum in South Kensington—‘A palace, by the look of it’—to see the skeletons of some real *Iguanodons* (59). Rock is greatly moved by coming face to face with the fossilized tokens of the authentic Mesozoic past, in part because of their dissimilarity from him: ‘Do you see how upright they are’, he asks, ‘looking as if they might move off at any minute?’ (65). But this sense of dynamism is an illusion: unlike him, the skeletons in John V. Lord’s illustration of this moment (Fig. 1) are completely inert, ignored by the magic which lurks in the Crystal Palace and lacking the soft tissue which would have been necessary for any ‘moving off’ in life. Their apparent vitality is a quality of the ‘upright’ way they have been posed by the museum’s curators, a way which, we know fifty years

after the publication of Coates's book, also fails to be true to the original (*Iguanodons*, it is currently thought, would have carried their tails parallel to the ground, a stance more like that shown in Fig. 2, a 2018 reconstruction employing the latest scientific information). Rock fails to understand that he still hasn't encountered the true originals, that what he sees is a museum text as vulnerable to upward revisions in scientific understanding as he himself has proven to be. Coates herself hints at an awareness of this—albeit obliquely—by choosing not to animate the museum objects: the same textual gesture which creates the Ancestors as pristine, authentic representations necessarily denudes them of an ability (or need) to speak with anything other than their forms, their essence, their object-ness. The Crystal Palace dinosaur, though, now unyoked from pure scientific truth, requires magical animation, dialogue, and narration in order to be situated.

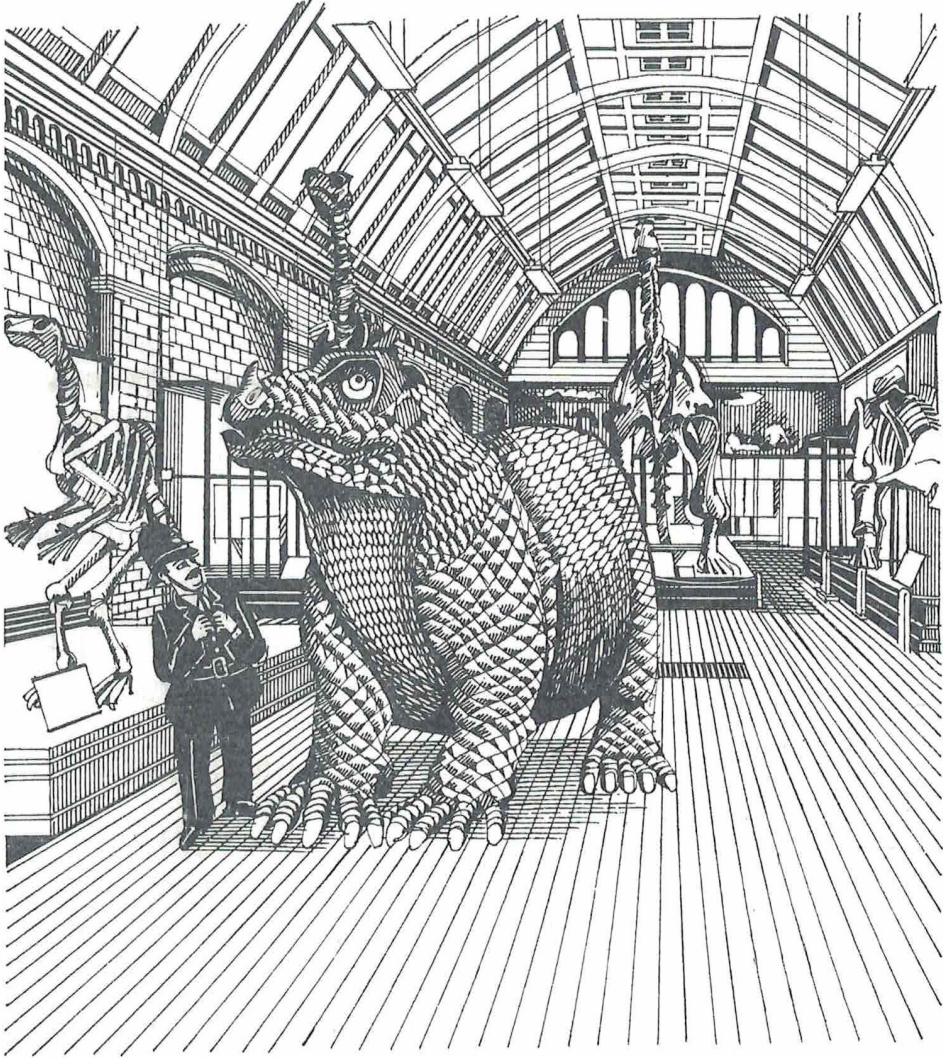


Fig 3. Illustration from Ann Coates's 'Dinosaurs Don't Die' (1970)

Rather than sneaking back out of the museum with Daniel, Rock opts to spend the night in South Kensington with the Ancestors, becoming—until the confused authorities return him to Sydenham the next morning—a real museum object at last. In another of Lord's glorious illustrations, Rock is pictured next to the *Iguanodons*, gazing at the same horizon (and not, tellingly, at the Ancestors it has come to see) whilst standing in his original Crystal Palace stance. Thus contextualized, Rock becomes a seamless part of the displayed evolution of the dinosaur image (Fig. 3). Judging by the shape of the gallery, the care Coates appears to have taken with her locations, and the publication date of the book, the sauropod behind Rock in this image is almost certainly Dippy, the iconic *Diplodocus* skeleton which would be moved to the front hallway of the museum in 1979 and remain there until 2017. Dippy is cast from a skeleton in Pittsburgh—no part of him was ever part of a living animal (for a full account of his history, see Nieuwland 2019). Meanwhile, since fossilization is a process which *replaces* bone with stone (see Thomson 2005: 59-67), the claim of the 'real' *Iguanodon* remains to authenticity is also far from straightforward. Materially, all three groups—statues, cast, and skeletons—have more in common than might at first be supposed: they are all solid, they are all unthinkable without nature, and they are all unthinkable without human interference and creativity. They are also all inscrutable. The epiphany Rock has when faced with his Ancestors is a silent one, although it is certainly enough for him and requires, again, no labels ('I'm overjoyed. He is magnificent. I am very proud', Coates 1970: 63). However, it's not only the Ancestors who fail to speak their own histories: Rock is basically ignorant of the history (natural and human) of *Iguanodon* until Daniel arrives, early in the text, to educate him. It is important for our argument here that Daniel cannot do this offhandedly, despite his daily visits to the dinosaur park (which he lives opposite). Instead, he leaves Rock when he discovers the statue's thirst for knowledge and returns the next night with 'some small books' (25) and 'pictures of your Ancestors' (19). These textual apparatuses, and not the museum exhibit in South Kensington, are what educate the unlabeled object that is the Standing *Iguanodon*: 'Look, this is what you would have looked like if they'd made you correctly' (25). Only with books, pictures, and a guide, can the model begin to understand what he stands in for.

Inert though they are in real life, the textual surroundings of Waterhouse Hawkins's models continue to alter. Under the care of the Friends of Crystal Palace Dinosaurs (FCPD, est. 2013), recent renovations have adjusted the tone (and therefore the models themselves) in the direction of science education:

Some of the statues are wildly inaccurate compared with modern interpretations. [...] However, research by historians shows clearly that experts in the 1850s had different interpretations, and these differences in view are reflected in the statues on display. The story of these evolving interpretations demonstrates how scientific ideas evolve when new evidence and ideas comes to light.¹

Mitigated by texts like this, the Crystal Palace dinosaurs are gently being resituated away from Victorian obsolescence, understood instead in terms of their role in local history and their value as an object lesson in the scientific method. A different way of putting this would be to say that they have been transubstantiated from objects of natural history to objects of human history, a transubstantiation which relies on the tacit acknowledgement that human history was really present all along. Signage at the site itself is a crucial part of this process, with all-new interpretation replacing a previous generation of material in late 2016; the original idea that the models could or should speak for themselves has long since been abandoned. Coates's book, as well as displaying the textual and material imbroglia which constitutes the modern *Iguanodon*, is itself a part of this slow reworking. Its fantastical plotline only thinly veils its pedagogical aims, but Coates also sets an important precedent by establishing Rock as a character loveable because of, and not in spite of, his outdated bulkiness. The FCPD is still engaged in this characterizing work: a twitter vote² was held to name the two *Iguanodons* in ShejuAdiyatiparambil-John and Judy Skidmore's recent picture-book *The Mysterious Dinosaurs of Crystal Palace* (2019), a portion of the proceeds from which will go towards conservation efforts at the site (the winning names were Paxton and Victoria).³

This whole discussion goes some way towards shedding light on Coates's title, *Dinosaurs Don't Die*, a phrase that doesn't appear in the body of her text and seems, initially,

a little incongruous. Rock is called a dinosaur at points in the text, but it is also clear that he remains an animated statue, not a flesh-and-blood creature, and the fact that he barely resembles the Ancestors he so admires is, in many ways, the point of the book. The answer to this incongruity, of course, is that it is both/and not either/or. It is precisely because of the mutability of the dinosaur as a social object—its ability to inhabit two apparently contradictory states simultaneously—that Rock can be both an innocent student of the Mesozoic past and an instructive product of it. This mutability is also exercised by the statues themselves in real life; it is granted, in part, by the textual constitution of the museum object. Revising labels (doing away with old ones when new information is discovered) is essential for the pedagogical aims of the museum, but can also be seen as yet another strategy to obscure the instability of truth in the museum, and to hide the speculative nature of much of the knowledge displayed. While we suggested that restorations are ‘dangerous’ because they reveal the speculation which was always inherent in the museum display, they are also valuable because they cannot be so easily rewritten or swept under the rug. Indeed, there are often laws in place specifically to prevent this (the Crystal Palace models are categorized as Grade I listed buildings in order to ensure their protection).



Fig 4. Photo of ‘Drawing out the Dinosaurs’ Exhibition

The images discussed so far are, of course, only a few of the many different ways *Iguanodon* has been portrayed since first being disinterred in 1822. Artistic renderings have been consistently updated to reflect the newest discoveries—for example, the correct location of its famous spike—from George Scharf’s 1833 restoration, through Alice Woodward’s more upright 1895 image, to the iconic postwar work of Zdeněk Burian and beyond. These palaeoartists, though, did not neutrally depict incremental improvements in scientific understanding. Like any other artists, they are also sensitive to the stylistic mores of the historical moment (Witton 2018: 23 and passim). It is surprisingly easy, we know from the workshops we have run, to guess the date of a work of dinosaur art to within a couple of decades; it is art, and not the dinosaur, that one needs a sense of in order to do well at this challenge. Wanting to celebrate this fact, to remind museum visitors that the history of dinosaurs is a history of art as well as a history of science, we collaborated in 2018 with the palaeontologist Richard Butler to produce a small exhibition called ‘Drawing Out the Dinosaurs’ at the Lapworth Museum of Geology in Birmingham, UK (at the time of writing, the exhibition is about to tour other locations in the region). Part of the exhibition was a ‘gallery wall’ displaying, chronologically, some moments in the artistic development of three animals: *Diplodocus* on the top row, *Iguanodon* on the middle row, and *Megalosaurus* along the bottom (Fig. 4). Our purpose in framing and hanging the pictures this way was twofold: to treat palaeontological restorations like the artworks they undoubtedly are (palaeoart tends to be overlooked by art historians—see Lescaze 2017: 267 and ff.), and to expose a science museum’s visitors to the fact that art had been in there all along.

The strongest challenge to the smooth teleology, the incremental perfection of the dinosaur image hinted at by the Crystal Palace signage, is that the outmoded dinosaurs don't cease to exist—in fact, as the FCPD know better than most, they are carefully conserved by groups of volunteers. Scharf, Woodward, and Burian are all still *there*, as objects and in consciousness, just as Rembrandt and Hokusai are still there—as a result of the labour of texts and people. Statues can continue to stand, images can continue to circulate, and obsolete ideas can continue to influence the creation of new interpretations (see Witton et al. 2014: 7). More than this: inaccurate images can endure in the individual consciousness—perhaps especially if they reach it during a certain period in childhood—subtly influencing the sense of what a dinosaur is, or should be. These images belie the idea that a stable, scientific evolution is the only force governing the altered forms of dinosaurs in popular culture. They can be banished by science, which rightly works towards improving our comprehension of the real animals which walked around Mesozoic Earth, but no human has ever seen one of these animals, and no human ever will, unmitigated by human processes: excavation, preparation, restoration. Seeing this requires us to see that 'imaginative reconstruction' has always involved creative labor rather than, as was doctrine in the nineteenth century (and since), the perfect replication of a pre-existing Truth. What is more, older interpretations are not simply dismissed from the public imagination, but can lurk like Rock on his island, offering commentary on their replacements. Dinosaurs don't die.

'What's your dinosaur?' We have found it useful to begin workshops on art in natural history museums by asking this question. The underlying conceit is that everyone, upon hearing the word 'dinosaur', pictures something slightly different. Some find that they imagine a carnivore, for example, and some pick a plant-eater: 'dinosaur' is an enormous group encompassing millions of years of evolution, so even if it were possible to restrict one's subconscious to objective, scientific reality there is still staggering diversity to choose from. We find, though, that people also differ in *how* they picture their dinosaur: is it a Disney cartoon, a Harryhausen puppet, a skeleton from a museum, a painting by James Gurney? Is it moving or static? Is it a human artefact (one participant pictured the Sinclair Oil logo, famously a green *Brontosaurus*) or 'in the wild'? Can you tell what influences your 'default' conception of a dinosaur? Is it from a museum space at all? If it is, how much of it comes from science and how much from art? Where does the culpability of the fossil end and that of the reconstruction begin? Is it possible, ultimately, to separate them?

Despite the best efforts of museums to present authentic, objective truth to their visitors, the lines between the indexical and iconic, the artefact and the model, and even fact and fiction inevitably blur in collective understandings of the distant past. The claim that a material artefact could conjure up authentic truth of the past and the reality that imagination and speculation are inseparable from this 'truth' are exemplified in a final brief example drawn from the life and work of the bestselling Victorian novelist H. Rider Haggard.

In his large house in the Norfolk village of Ditchingham, Haggard had amassed 'a collection of Egyptian and other artefacts, substantial enough to be given scholarly catalogue and assessment in the *Journal of Egyptian Archaeology*' (Luckhurst 2012: 188). These objects – including 'Arabian shields', 'Egyptian bows and throwing-sticks', 'ostrich eggs', and a lamp 'made of the Royal red wood of Zululand' – were partly gathered as a result of Haggard's eventful life (How 4). They were also, though, as Roger Luckhurst has written, crucial elements in his famously intense periods of composition: '[f]or such a fantastical writer, his imagination was often utterly material, starting out with a literal handling of objects' (Luckhurst 2012: 203). The pharaonic ring crucial to the plot of *She* (1886-1887), for example, was real – one of a pair presented to Haggard in the year he wrote the novel (194). From this we can surmise that Haggard both ascribed to the resonance of the material object, and understood that this resonance was grounded in the imaginative, the creative, and the outright fictional. Thus, also in his collection, hanging 'over the mantlepiece', was the 'original sherd', a work of pottery fabricated by Haggard which, in the story, contains the information that sends Leo and Holly on their adventure to the lost tombs of Kôr (How 14). In these two objects we see, perhaps, a microcosm of the exchange between imaginative reconstruction and absolute truth: the ring was a means by which Haggard 'imagined himself into ancient [...] worlds by processes of intense empathic projection, a form of *feeling into* that for many of his contemporaries did

indeed border on the supernatural, so “authentic” did his fiction feel’ (Luckhurst 2012: 193, original emphases). This authenticity, though, is also dependent upon on the existence of the sherd, a forgery which, Haggard contentedly declared, had nearly fooled the president of the Egyptian Exploration Fund (Malley 1997: 280). Here we see the true complexity of the relationship between Greenblatt’s resonance and wonder as constituted by the culture of nineteenth-century collecting – knowing and not knowing are both equally at play in experiencing these unlabeled objects. The ring becomes fiction once applied to the hand of Leo Vincey; the sherd becomes fact once situated in the context of Haggard’s collection. With both Haggard explores the past, with both he invents it.

Today, the sherd is part of the collection at the Norwich Castle Museum and Art Gallery (NWHCM 1917.68.7.1). What truth are the people who come to see it there in search of? How will the museum’s labels, and their own imaginations, help them to find it?

Received: 9 August 2019

Finally Accepted: 22 November 2019

Notes

- ¹ ‘What are the “Crystal Palace Dinosaurs”?’ Friends of the Crystal Palace Dinosaurs (n.d.). <https://cpdinosaurs.org/visit/what-are-crystal-palace-dinosaurs/>, accessed 11 April 2019.
- ² Judy Skidmore, ‘Last Chance!...’, Twitter (12:09am 12 April 2019). <https://twitter.com/judystick/status/1116599106464411648>, accessed 14 June 2019.
- ³ ‘The Mysterious Dinosaurs of Crystal Palace’, Parakeet Books (n.d.). <https://www.parakeetbooks.com/our-new-book/the-mysterious-dinosaurs-of-crystal-palace/>, accessed 12 April 2019.

References

- Adiyatiparambil-John, S. and Skidmore, J. (2019) *The Mysterious Dinosaurs of Crystal Palace*, London: Parakeet books.
- Anon. (June 07, 1838) *Standard* (London, England), issue 4356.
- Anon. (August 23, 1843) ‘Thirteenth Meeting of the British Association’, *Freeman’s Journal and Daily Commercial Advertiser* (Dublin, Ireland), Issue N/A.
- Anon. (August 23, 1843) ‘British Association for the Advancement of Science’, *The Morning Post* (London, England) Issue 22655, 5.
- Anon. (August 15, 1846) ‘Imperial Parliament’, *Daily News* (London, England), Issue 66.
- Anon. (January 13, 1848) ‘Mr. Layard’s Assyrian Discoveries’, *Daily News* (London, England), Issue 508.
- Anon. (March 15, 1853) ‘The Derby Museum’. *Liverpool Mercury* etc (Liverpool, England), Issue 2484.
- Anon. (May 18, 1854; Issue 27269) ‘Society of Arts’, *The Morning Chronicle* (London, England), Issue 27269.
- Bennett, T. (1995) *The Birth of the Museum: history, theory, politics*, London: Routledge.
- Bourdieu, P. and Darbel, A. (1991) *The Love of Art*, Cambridge: Polity Press.
- Coates, A. (1970) *Dinosaurs Don’t Die*, London: Longman Young.

- Csikszentmihalyi, M. and Robinson, R. E. (1990) *The Art of Seeing: An Interpretation of the Aesthetic Encounter*, Los Angeles: J. Paul Getty Museum.
- Dawson, G. (2012) 'On Richard Owen's Discovery, in 1839, of the Extinct New Zealand Moa from Just a Single Bone' *BRANCH: Britain, Representation and Nineteenth-Century History*. http://www.branchcollective.org/?ps_articles=gowan-dawson-on-richard-owens-discovery-in-1839-of-the-extinct-new-zealand-moa-from-just-a-single-bone
- (2016) *Show me the Bone: Reconstructing Prehistoric Monsters in Nineteenth-Century Britain and America*, Chicago: University of Chicago Press.
- Greenblatt, S. (1990) 'Resonance and Wonder', *Bulletin of the American Academy of Arts and Sciences*, 43 (4) 11-34.
- How, H. (1892) 'Illustrated Interviews. No VII - Mr. H. Rider Haggard', *Strand Magazine* 3 (1), 2-17.
- Kant, I. (1892) *Kant's Kritik of Judgment*, trans. J.H. Bernard. London: Macmillan and Co.
- Lescaze, Z. (2017) *Paleoart: Visions of the Prehistoric Past*, Cologne: Taschen.
- Luckhurst, R. (2012) *The Mummy's Curse: The True History of a Dark Fantasy*, Oxford: Oxford University Press.
- Marshall, N. R. (2007) "'A Dim World, Where Monsters Dwell": The Spatial Time of the Sydenham Crystal Palace Dinosaur Park', *Victorian Studies* 49 (2) 286-301.
- Malley, S. (1997) 'Time Hath No Power Against Identity', *English Literature in Transition* 40 (3) 275-297.
- Nieuwland, I. (2019) *American Dinosaur Abroad: A Cultural History of Carnegie's Plaster Diplodocus*, Pittsburgh: University of Pittsburgh Press.
- Pater, W. (1895) *Greek Studies: A series of essays*, ed. by Charles L. Shadwell, London: Macmillan and Co.
- Preziosi, D. (2012) 'Narrativity and the Museological Myths of Nationality' in Bettina Messias Carbonell (ed), *Museum Studies: An Anthology of Contexts*, 2nd edition, 82-91, Chichester, Sussex: Wiley-Blackwell.
- Rieppel, L. (2012) 'Bringing Dinosaurs Back to Life: Exhibiting Prehistory at the American Museum of Natural History', *Isis*, 103 (3) 460-490.
- Secord, J. (2004) 'Monsters at the Crystal Palace', in Nick Hopwood and Soraya de Chadarevian (ed) *Models: The Third Dimension in Science*, 138-69, Stanford: Stanford University Press.
- Switek, B. (2013) *Bully for Brontosaurus*, New York: Scientific American.
- Thackeray, W. M. (1854) *The Newcomes; memoirs of a most respectable family* vol. II, London: Bradbury & Evans.
- Thomson, K. (2005) *Fossils: A Very Short Introduction*, Oxford: Oxford University Press.
- Witton, M. P. (2018) *The Palaeoartist's Handbook: Recreating Prehistoric Animals in Art*, Marlborough: Crowood.
- Witton, M. P., Naish, D., and Conway, C. (2014). 'State of the Palaeoart'. *Palaeontologia Electronica* 17 (3) 1-10.

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