

UNCONQUERABLE MONSTERS OF THE IMPERIAL PERIPHERY:
EARLY DINOSAUR FICTION, 1864-1912

A Thesis

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Eugenia Lily Yu

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ABSTRACT

This thesis defines the term “dinosaur fiction” as narratives that feature living fossil reptiles in the modern world and looks to the emergent period of dinosaur fiction, 1864-1912, for patterns of representational practices and ideologies. An analysis of Jules Verne’s *Journey to the Centre of the Earth*, James De Mille’s *A Strange Manuscript in a Copper Cylinder*, Frank Savile’s *Beyond the Great South Wall*, and Arthur Conan Doyle’s *The Lost World* suggests that the dinosaur figures societal fears of future technological advancements, indomitable resistance to colonization, and the loss of a sense of self intimately bound with the logic of empire, as well as the implicit threat of eventual human extinction. This last and greatest evolutionary threat encourages visions of human futurity, whether reproductive or homosocial, that cross race and class boundaries.

BIOGRAPHICAL SKETCH

Eugenia Yu graduated from Princeton University in 2012 with a degree in English cum laude and a certificate in biophysics. She entered Cornell University's PhD program in English Language and Literature in 2013.

For my family

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INTRODUCTION
DINOSAUR FICTION IN THE LATE NINETEENTH AND
EARLY TWENTIETH CENTURIES

In his cultural history of the dinosaur, *The Last Dinosaur Book*, W.T. Mitchell notes, “There is, to my knowledge, no study of literary (narrative and poetic) dinosaurs” (285). In the hundred and fifty years since Charles Dickens’ figurative *Megalosaurus* waddled up Holburn Hill, innumerable novels and stories, from Jules Verne’s *Voyage au centre de la terre* to Italo Calvino’s *Cosmicomics*, in addition to the film *Jurassic Park*, have tapped a deep fascination with these prehistoric monsters while receiving relatively little organized critical attention.¹ Long before the dinosaur became a complex signifier for global capitalism, with Sue the T-Rex starring in McDonald’s commercials, and Sinclair Oil adopting the Brontosaurus as its logo, it appeared within the epistemology of European empire as an antediluvian monster. Derived from Latin *monstrum*, the monster is a demonstration (Thacker 23), and this thesis asks what colonial ideologies the monstrous dinosaur manifests or resists. If we come to understand the anxieties and desires embedded in the literary dinosaur in the first fifty years of its existence, we may then newly comprehend our reasons for both exhibiting them prominently in the atria of our national museums and mass-producing them in all forms of kitsch, as well as our enduring fascination with cinematic visions of dinosaurs wreaking havoc on the modern world, from *Godzilla* to *Jurassic World*. Moreover, as early as Benjamin Waterhouse Hawkin’s creation of large dinosaur models in Sydenham Park, replicated in miniature for classroom distribution, the dinosaur was envisioned as a pedagogical vehicle for the public, the perfect teaching aid, and if we examine

¹ The most notable exceptions are John Glendening’s paper on literary appearances of the Ichthyosaurus and Susan Shatto’s paper on dinosaurs in Romantic poetry.

our attraction to dinosaur narratives, we may better identify and question the ways in which these stories train us.

To clarify two central terms, this thesis uses “dinosaur” in an unscientific and anachronistic sense, as a shorter and more convenient substitute for what was meant by the contemporary Victorian terms “fossil reptile” or “antediluvian reptile.”² “Dinosaur fiction” refers to those texts that feature the living fossil reptile in the industrialized world, as distinguished from prehistoric fiction and its narratives of extinct fossil creatures and early humans alive in the distant past. The temporal scope of this thesis is from 1864 to 1912, and a bibliography of the twenty novels and eleven or twelve stories in the category of dinosaur fiction from this period may be found in the Appendix.³

Siobhan Carroll has recently collected the remote spaces of the poles, the oceans, the atmosphere, and the subterranean under the heading of “atopias,” or spaces antagonistic to colonization and hostile to permanent human settlement (6-14). Falling outside of the borders of Enlightenment rationality, these blank spaces of the colonial map could only be occupied temporarily by people and were full of marvels and monsters (Carroll 21). Dinosaur fiction usually inhabits one of these atopias, and the dinosaurs of these narratives resemble their environment in their resistance to colonizing forces, boasting bulletproof scales in Frank Savile’s *Beyond the Great South Wall* or else nervous systems so slow and primitive that they do not notice gunshot injuries, as in Arthur Conan Doyle’s *The Lost World*. Only the primitive poisons

² I follow Ralph O’Connor and the Victorian authors he emulates in not italicizing the names of genera, though italicization is standard in modern scientific usage (9).

³ The discrepancy is caused by Robert Duncan Milne’s publishing a story in two separately titled parts as “The Iguanodon’s Egg” and “The Hatching of the Iguanodon.” The list of works was compiled from Everett Bleiler’s *Science Fiction: The Early Years*, Marc Angenot’s and Nadia Khouri’s “International Bibliography of Prehistoric Fiction,” and Chad Arment’s *Sauria Monstra*.

and traps developed by the native populations are capable of dispatching them, if indeed humans are able to kill them at all.

Because of its location in atopic space, dinosaur fiction does not participate in the usual colonial erotics of masculine penetration into a veiled and luxurious feminine space, which Anne McClintock terms the “porno-tropics” (220-4). The foreign landscapes in these novels are characterized either as neuter or masculine in their interactions with European explorers. *Voyage* is figured as a journey through an ungendered, asexual digestive tract, while the Antarctic continent of *Beyond the Great South Wall* is devoid of vegetation and all land animals other than a single Brontosaurus. The balmy Antarctic islands of James De Mille’s *A Strange Manuscript Found in a Copper Cylinder* are rendered impenetrable by the presence of carnivorous dinosaurs, and entry into that wider polar region is irreversible, countering the traditional colonial narrative of the male explorer opening up unknown spaces, exploiting the resources therein, and returning to the center of empire with knowledge and wealth. The lush, rank jungle that Doyle’s adventurers struggle through in *The Lost World*, the most likely candidate for McClintock’s rubric, penetrates the explorers with sharp bamboos and frustrates their attempted penetration with blocked passages. Furthermore, Doyle’s expedition is not one of discovery into untouched wilderness, but rather a fact-checking investigation retracing Professor Challenger’s previous journey, which itself was an attempt to retrace the journey of the late Maple White, antithesis of the conquistador, whose only motive was artistic inspiration.

Nor do dinosaur novels feature the porno-tropics’ promiscuous natives who fling themselves upon European explorers. The natives of *Beyond the Great South Wall* are all deceased; the only “native” of *Voyage* is a briefly glimpsed giant inserted in the 1867 revisions; and when there are non-European women at all, their attraction to the explorers takes the form of

childish curiosity, as in *The Lost World*, or an individual and personal relationship, as in *A Strange Manuscript*, where More's courtship of Almah is expressed with enough modesty for the starchiest bluestocking novel of manners. Rather than permitting the standard postcolonial reading through the lens of sexual encounter, then, these texts carve out an idiosyncratic anxiety of eating, reflecting the contemporary imperial processes of devouring, digestion, and assimilation that incorporated territory and resources into the world system feeding the metropolis. Where the prospect of sexual engulfment by a luxurious tropical jungle threatens and arouses the individual explorer in the conventional adventure novel, the anthropophagous dinosaur poses a threat to the entirety of European civilization, if not the entire human species, on the global stage of evolutionary competition.

Gillian Beer has written about Victorian novelists' divergent reactions to Darwin's writings on evolution, with most, Dickens and George Eliot among them, adopting as a consequence evolutionary theory's subordination of the individual human life to the continuation of the family or group, while Thomas Hardy, in contrast, fits his novels to the span of a single human life (222-3). Following Darwin, Beer's focus is on the influence of the positive or adaptive aspects of species competition and evolution, while this thesis, following Darwin's intellectual predecessor, the geologist Charles Lyell, prioritizes the negative aspect, namely out-competition and species extinction. In particular, a common thread throughout dinosaur fiction is the existential threat arising from the inferred possibility of predators superior to humanity and capable of driving the human species to extinction. In response to Beer, Adelene Buckland has similarly traced the adoption of strata and catastrophism and uniformitarianism as models for structure in Charles Kingsley's and George Eliot's novels, among others. Neither Beer or

Buckland, however, looks beyond the domestic or national context, while this thesis will elaborate on the geopolitical and colonial implications of geology's influence on literature.

Ralph O'Connor, meanwhile, erases the porous line between literature and science to read geologists' work as literature, arguing that the romance and spectacle of popular geological texts converted readers from the Biblical account of creation to new theories of earth history. While scholars widely agree that ideas and innovations traveled freely between literature and science in the middle of the nineteenth century, before the scientific disciplines attained a degree of specialization in the late nineteenth century that made it difficult for the casual reader to participate (Beer 4), it would not be easy to argue for dinosaur fiction, with its fantastical resurrection of prehistoric monsters in a modern world, as being an offshoot of scientific writing, directly contiguous to scientific practice. One could argue that Vladimir Obruchev, a working paleontologist and author of the first Russian dinosaur novel, *Plutonia*, offers such a bridge, but for all Obruchev's stated desire to correct Verne's scientific inaccuracies (8), *Plutonia* plays with such fantastic fictional tropes as the concept of a hollow Earth with polar entrances. That is, while an analysis of dinosaur fiction as contemporary science writing is valuable, and the first chapter of this thesis considers the influence of developments in geology on these texts, there is more to be gained from studying dinosaur fiction in the context of fictional literature and its conventions.

Traditionally, dinosaur fiction has been interpreted as a subsection of the interrelated genres of lost-race and lost-world narratives, a categorization that subordinates the dinosaur, when it appears, to its unexplored habitat or to the colloidal indigenous population. Given the rich variety of genres and literary traditions that dinosaur fiction incorporates, including utopian fiction, sea fiction, hollow Earth narratives, lost-race and lost-world narratives, and fabulous

depictions of the Antarctic, the usual parenthetical treatment of dinosaur fiction as a subset of a single one of these genres can be expected to produce a more limited understanding than an analysis addressing the multiplicity of genres intersecting in dinosaur fiction, or an analysis of dinosaur fiction as a category of its own. Verne's *Voyage*, for example, with its vast underground spaces and electric light, stands inside three centuries of hollow Earth novels dating back to Edmund Halley's 1691 proposal of several concentric spheres and a light source inside the globe, including novels such as *Relation d'un voyage du pôle arctique au pôle antarctique* (1721), *Symzonia* (1820), Obruchev's *Plutonia* (1924), and Edgar Rice Burroughs' Pellucidar series (Standish). The hollow-earth tradition appears in *A Strange Manuscript*, too, when Adam More, carried underground on a river, wonders if the hollow Earth theory is true. Margaret Cohen has also suggested that Verne transplanted the basic structure of sea fiction, a series of adventures narrated in plain style that resolves problems using practical reasoning, into his scientific romances, *Voyage* among them (10, 214).

John Rieder has proposed a general outline for the lost-world or lost-race narrative: a document, often a map, precipitates a journey to a remote, exotic locale, where some trace of European or white predecessors is found, and some combination of princess, priest, idol, and treasure encountered (22, 40). Nadia Khouri describes the lost world narrative as a "frustrated re-enactment of Columbus' discovery of America" (187), frustrated insofar as the newly found country is no virgin utopia but often decadent and in decline. The narratives Khouri considers are nevertheless largely successful in amassing power, wealth, and Christian converts for Europe and its representatives. However, where the dinosaur intrudes upon the lost-race narrative, it becomes a locus of insurmountable resistance, a precolonial, prehistoric power capable of consuming the explorers and overturning the Columbian fantasy of conquest. Within that re-enactment,

dinosaurs either take over or share the place of the Arawak Indians that Columbus reported to be anthropophagi, embodying the same European anxieties that attached to the Caribbean indigenous body but without that body's susceptibility to military subjugation, slavery, and disease. In addition, the presence of dinosaurs often overshadows the younger, though still ancient, human settlements among which they appear. They prolong and complicate the expected procedures of exploitation, annexation, destruction, and scientific discovery, even to the point of stripping European explorers of effective agency, as in Savile's *Beyond the Great South Wall*, where nothing short of an earthquake and a volcano are capable of stopping the Brontosaurus.

Compared to those lost-race and lost-world narratives that lack dinosaurs, dinosaur fiction generally demonstrates a more nuanced and ambivalent stance toward the racial hierarchies of the day and the threat of racial degeneracy. In spite of the trend toward visions of a timeless, universal manhood that Bradley Deane traces in the popular narratives of 1870-1914, in which Europeans could acknowledge "better men" in other races, Kipling's Gunga Din for example, in order to revitalize and refine their own sense of ideal masculinity, taboos against racial mixing and "going native" remained potent. In H. Rider Haggard's *King Solomon's Mines* (1885), for all the mutual respect between Ignosi and Allan Quatermain, in the end, at Quatermain's insistence, strict racial segregation is observed. Moreover, Quatermain describes the death of the Zulu woman Foulata, who was loved by the white Captain Good, as a fortunate event: "No amount of beauty or refinement could have made an entanglement between Good and herself a desirable occurrence; for, as she herself put it, 'Can the sun mate with the darkness, or the white with the black?' " (258). In De Mille's *A Strange Manuscript*, in contrast, the English sailor Adam More seriously considers marriage to both the native Kosekin Layelah and the foreigner Almah, who are both described as possibly Semitic and certainly non-European, before

marrying the latter with joy and satisfaction, while two of Doyle's adventurers, despite rejecting the offer of interracial matrimony, resolve to return to the Indians' plateau after making their report in London.

While the threat of cannibalism motivates Adam More to rehearse his received tenets of racial superiority so as to protect himself, and moves the expedition in *The Lost World* to prepare covering fire against any natives awaiting them on the plateau, and although it led Charles Dickens to denounce the Inuit as a treacherous, deceitful race, rather than countenance John Rae's suggestion that the Franklin expedition resorted to it, the anthropophagous dinosaur, by invoking the threat of species extinction rather than the destruction of the boundaries around the individual self, facilitates identification of the white self with other races and declarations of human unity, however short-lived. Doyle's Edward Malone, saved by a pit trap, declares himself allied with whatever human populations exist on the plateau, which prove to be Indians and apemen; Adam More marries Layelah; and Lord Heatherslie, despite his scorn for "niggers" and "half-castes," finds sympathy for a Mayan man and his self-sacrificial attempt to rescue his beloved, an act Lord Heatherslie finds himself repeating, as if in imitation or emulation. In short, the adaptive or Darwinian evolutionary narrative, allowing for degeneration and regression, as well as the possibility of eugenic improvements, when combined with the Victorian belief in the white European gentleman as the evolutionary ideal, discouraged any relationships or alliances that imperiled racial purity, even if it allowed for movement between economic classes. On the other hand, the narrative of unsuccessful species competition and possible human extinction, as manifested in the fictional anthropophagous dinosaur, prioritized the present survival of the human species over its potential future perfectibility and encouraged, within limits, interracial alliances and identifications that could contribute to the continuation of humanity.

In this regard, the nineteenth-century fictional dinosaur differs from contemporary fictional depictions of mummies and vampires, which remain human and thus capable of marriage, in the case of the former, and reproduction by corruption, in the case of the latter. Deane in particular argues that the Victorian and Edwardian mummy, usually portrayed as a young and beautiful woman, was an Orientalist fantasy of the British occupation of Egypt, the fictional embodiment of what was called “the veiled Protectorate” (173-83). As past or possible future conditions of the human, the threat that the mummy, vampire, and Frankenstein’s monster present is one of corrupted, perverted, or unnaturally preserved humanity, rather than the consumption and assimilation of the human body into a superior, nonhuman body. The dinosaur of this period bears greater resemblance to contemporary Martians and other aliens in that their fictional presence elicits elegiac invocations of “humanity” and “mankind” rather than of separate, competing races. Still, as a survivor of eons of terrestrial evolution, unlike H.G. Wells’ Martians, who die quickly from exposure to unfamiliar bacteria, the dinosaur more solidly embodies the existential threat of humanity outcompeted in the evolutionary struggle and driven to extinction.

Despite these particular distinctions, both fictional and geological descriptions of dinosaurs in the late nineteenth and early twentieth century participated in a hybrid discourse of monstrosity that was partly shared by the previously mentioned humanoid monsters. Denise Gigante identifies the two threads of monstrous rhetoric as consisting of the creation of “a static, ill assemblage of parts,” or a patchwork of pieces of different creatures, in the first case, and as a disordered “extension of the living principle,” or an inability to stop growing at ordinary bounds, in the second (436). While she labels these two representational approaches to the monstrous as Enlightenment and Romantic respectively, O’Connor points out that the practice of crafting

monsters from mismatched animal parts dates as least as far back as the taxidermy of the Renaissance (328). A better modifier for the first, jigsaw-puzzle conception of the monstrous, for a discussion of dinosaur fiction, might be “geological,” as it featured frequently in geological texts. The geologists who described the first fossil reptiles did so by comparing their parts to those of known animals in what was both a practical application of Cuvier’s methods of comparative anatomy and a self-aware implementation of the first, patchwork form of monstrous discourse, as the names they bestowed suggest: the Ichthyosaurus, for example, translates to “fish-lizard” (O’Connor 328). Gideon Mantell, describing the Iguanodon, depicts himself as a “Frankenstein” who calls into existence “an enormous monster” (Mantell 315; O’Connor 328).

In Gigante’s account, Romantic literature reconceived the monstrous, turning from the older tradition of the monster as patchwork to a new idea of the monster as embodying an excess of life, vampiric and insatiable in its appetites (434-4). While borrowing extensively from the geological imagining of the monstrous, descriptions of early fictional dinosaurs also draw from the Romantic literary idea of monstrous overgrowth, producing a hybrid monstrousness that reflects, in part, dinosaur novels’ hybridization of genres and their overarching aesthetics of evolutionary and genetic recombination. The serial novel was in fact at first condemned by critics as a form comparable to a prehistoric monster because of its appearance in segmented, segregated pieces rather than as a whole, as well as what was perceived as its excessive length (Dawson 204-6). In short, beginning with Verne’s ichthyosaur and plesiosaur, which moved at excessive speed and battled with tremendous force, while appearing to be composed of all kinds of present-day animals, the literary imagination diverges from the scientific in depicting the dinosaur at the intersection of two separate discourses of monstrosity rather than solely as the product of the composite geological monstrous. This dual, hybrid monstrosity would eventually

lead to late twentieth-century narratives, including Spielberg's adaptation of Michael Crichton's *Jurassic Park*, that depicted the resurrection of dinosaurs in the present day as tampering with the principles and ordinary limits of life.

The first chapter of this thesis gives an overview of the major intellectual controversies and developments in the nascent field of geology in the decades leading up to the period of this study and the ways in which they influenced later authors of dinosaur fiction. These include the ongoing dialogue between uniformitarianism and catastrophism, the fictional deployment of the former producing and preserving the static environment of Doyle's Maple White Land, the latter killing Savile's Mayans and Brontosaurus and both entrapping and liberating the European expedition; the idea of deep time, which manifested in literature as a narrative device that Adelene Buckland calls the geological retrospect; and the principles of stratigraphy, by which Verne's Axel and Professor Lidenbrock navigate their descent in *Voyage*. Cuvier's establishment of species extinction precipitated a long-running argument over the relative culpability of human development and natural evolutionary pressures for the ongoing loss of biological diversity, at the time a question for imperialism rather than capitalism. Meanwhile, the increasing prominence of American paleontology, and strategic deployments of the giant bones of American mammoths and dinosaurs to the European scientific metropolises that lacked them, disquieted the European scientific elite and evoked a sense of declining imperial power that would be expressed in dinosaur fiction's foregrounding of unconquerable South American, Antarctic, and subterranean monsters.

The second chapter considers the similar but divergent fears produced by cannibals and anthropophagous dinosaurs. The former fear, often present in colonial adventure fiction, incites protagonist and reader alike to uphold racial distinctions and hierarchies in order to preserve the

boundaries of the individual self against the perceived encroachments of the dark Other. The latter fear, meanwhile, invokes the impulse to self-preservation by identification with humanity as a single species rather than as competing races in the face of a predator superior to modern man, thereby weakening racial divisions. The difference in the pedagogical effects of dinosaur fiction and adventure fiction might be compared to that found in contemporary narratives of extraterrestrial and human invasions, with the former promulgating a vision of international unity against an alien force and the latter promoting nationalism and insularity. In permitting interracial and interclass unions, dinosaur novels respond to the perils of prehistory by pointing forward toward the reproductive futurity of an unbounded humanity. Furthermore, the late nineteenth century dinosaur's physical imperviousness to the civilizing forces of European firearms presents an impassible limit to the expansion of European empires and the threat of the consumption and assimilation of those selfsame white bodies accustomed to consuming and assimilating others, while the dinosaur's irruption from the deep past disrupts the classical imperial narrative of linear progress and evolutionary advancement through time.

The third chapter considers the related threats of obsolescence and species extinction posed in fiction by the dinosaur and in contemporary life by the rapid expansion of railroads across Europe, which was changing everything from local timekeeping to natural patterns of production and consumption and forcing adaptation to new conditions, even as cuts in the rock strata for railroad tracks revealed the bones of dinosaurs. On the railroad, an exhilarating but also frightening vision of the future ran over and alongside traces of prehistoric terrors, and a similar situation holds in the dinosaur novel. Strict gender segregation in Conan Doyle's and Verne's novels, related in part to the shift in the Victorian idealization of masculinity from patriarch to youthful soldier, enforces the relative predetermined functions of women and men in the quasi-

Darwinian understanding of society as structured in descending stages from the perfection of the white European gentleman, even as the exclusively male expeditions project a second vision of futurity as mastery over technology and nature, enabled by interracial and international masculine alliances.

The monstrous fictional dinosaur thus embodies and performs a precise collection of social anxieties as diverse as the genres and discourses the fictional dinosaur participates in, concerning the declining might of European empires relative to the dinosaur-rich United States; the prospect of engulfment and assimilation by those formerly engulfed and assimilated by Europe; species extinction in the wake of imperial expansion, and the possibility of humanity's eventual disappearance; and the status of racial hierarchies in the context of threats to the human species. In particular, when the dinosaur novel embodies the last of these anxieties, it co-opts the typical marriage plot in order to open up the possibility of interracial alliances, whether reproductive or homosocial, and to posit a futurity for the human species as a whole, rather than for the white male imperialist alone. In this, the literary imagination ran counter to the staunchly imperialist and socially conservative imagination of such wealthy gentleman geologists as Sir Charles Lyell.

CHAPTER ONE
REVOLUTIONS AND REVELATIONS OF GEOLOGY

Given that geology and the related field of evolutionary science captured the imagination of the Victorian public to a far greater extent than chemistry, astronomy, physics, or medicine (Fayter 283), and given that scientists, readers, and authors freely associated and exchanged ideas, and sometimes published in the same places (Beer 4-5, Buckland 275), a thorough understanding of the radical developments in geology in the nineteenth century might naturally be expected to lead to insights in the analysis of nineteenth century literature, and indeed, Adelene Buckland's work on Sir Walter Scott's influence on geologists, and geology's influence on such writers as Charles Kingsley, has borne this out. The end of the eighteenth century saw the beginning of a European understanding of time on the scale of millions of years, which found representational form in novels as an imaginary gaze backwards through the geological ages, as well as Cuvier's confirmation of species extinction.⁴ The nineteenth century saw the creation of stratigraphy and Darwin's theory of evolution. The theory of uniformitarianism, which proposed that the present-day state of the Earth was the result of slow but steady changes over time, gradually came to predominate over the competing theory of catastrophism and its Scripturally concordant visions of deluges and massive upheavals. The first fossil reptiles were discovered in British rock in the early 1820s, but by the end of the century the center of paleontology had moved to the United States, whose scientists were shedding their formerly subordinate relationship to European institutions and associations. This chapter traces the influence of

⁴ Loren Eiseley, Virginia Zimmerman, and others have attributed the new understanding of deep time to James Hutton and his *Theory of the Earth* (1788), but O'Connor and Buckland suggest that Hutton's reputation as originator is based less on his writings and more on his friend John Playfair's eulogizing account of Hutton.

developments in geology and geological rhetoric on the dinosaur fiction that appeared in the latter half of the century and argues that the four novels analyzed in this thesis might reflect, in their tensions and contradictions, the implicit tensions between the conservative, gentlemanly discipline of geology and the revolutionary implications of evolutionary theory, among them the prospect of human extinction.

The general political bent of early geology was conservative and elitist, in part due to the economic and institutional restrictions preventing the full participation and recognition of those who deviated from the ideal of the gentleman geologist, in part due to concerns about denunciations of geological writings as heretical and profane (Buckland 99-100). While people of all classes, women, and children could participate in the Victorian fossil market, hunting and selling fossils to supplement their incomes, the authority to name, categorize, and “discover” new species was reserved to an exclusively white, exclusively male elite that enjoyed the credentials of membership in European scientific associations (Knell 3-7). These associations explicitly barred women from formal membership (O’Connor 219), and throughout the eighteenth century prohibited American naturalists as well, except on a provisional and subordinate basis (Parrish 73-5, 107). More indirect economic barriers included expensive membership fees and paper taxes that increased the prices of geological texts (O’Connor 219-20). Geologists as a group emphasized the value of their discipline to landowners looking to exploit the natural mineral resources of their estates (O’Connor 120). It seems surprising, then, that the fantastical genre of dinosaur fiction, which I show in the next chapters to be a subversive and quietly anti-imperialist subgenre, should arise from this particular branch of science.

One possible explanation may be found in French naturalist Georges Cuvier’s conclusive establishment of the existence of extinction through studies of vanished fossil mammals, among

them the mammoth, mastodon, and Megatherium (Zimmerman 35; O'Connor 34). In addition to the new vertiginous view of time on a geological scale, against which the human lifespan diminished to an insignificant blink, and all of human civilization to a pause, the public now had to cope with the implications of prehistoric species vanishing into nothingness, without descendents. Creation appeared disordered; a Creator who designed species that went extinct seemed less benevolent or else less deliberate in his plans than previously believed. Moreover, the unthinkable became thinkable: if many other species, successful in their own time, had provably gone extinct over the millions of years of natural history, what prevented the possibility of the eventual extinction of the human species? As later chapters will show, this latent threat to the human species could sometimes turn the fictional European explorer's concerns away from racial distinctions and toward the greater welfare of humanity, at least for a while, and presumably affected the reader in similar ways.

Stratigraphy shaped nineteenth-century fiction in subtler ways. The traversal of vertical space to reach prehistoric life, which features in most dinosaur fiction, was likely inspired by the work of William Smith. A rare exception to the leisured and moneyed gentlemen of geology, Smith was a humble surveyor and field geologist who formalized and propounded a system of interpretation of rock strata in several papers published between 1815 and 1817, after his friends and family finally convinced him to write down the insights he had been freely expounding. The principles of stratigraphy were, in sum, that a stratum could be identified across separate locations by the common set of fossils it contained, and that strata that were lower in a layered bed were older than the strata above. Buckland notes in passing that the metaphor of strata was commonly applied to visualize the development of European languages (163). More importantly, this rigorous mapping of space, in the form of rock layers, to time made possible a kind of visual

time travel. The geological enthusiast, in passing his gaze over a section of exposed rock, could progress forward or backward through geologic periods without moving an inch. Likewise, in all the novels of this study, vertical travel across rock layers results in encounters with fossil animals, in what was effectively a kind of time travel that brought the living past into the present, unlike the travel into past and future offered by H.G. Wells' machine.

The next major revolution in geology came with the publication of Sir Charles Lyell's three-volume *Principles of Geology* between 1830 and 1833, which made the strongest case for the theory of uniformitarianism, or the idea of gradual geologic change over millions of years. Lyell's observation of a Malthusian struggle for existence in nature would inspire Darwin, who read the first volume of the *Principles* while aboard the *Beagle*, although Lyell mainly saw the negative outcomes of such a struggle, namely extinction, while Darwin saw the positive results of adaptation and evolution (Eiseley 93-102). In the *Principles*, Lyell's observations of present-day species extinctions are couched in terms of colonial conquest. He predicts that extinction rates will accelerate as "colonies of highly civilized nations spread themselves over unoccupied lands," and furthermore, that this was just and natural:

Yet, if we wield the sword of extermination as we advance, we have no reason to repine at the havoc committed, nor to fancy, with the Scottish poet, that "we violate the social union of nature"... We have only to reflect, that in thus obtaining possession of the earth by conquest, and defending our acquisitions by force, we exercise no exclusive prerogative. Every species which has spread itself from a small point over a wide area must, in like manner, have marked its progress by the diminution or the entire extirpation of some other, and must maintain its ground

by a successful struggle against the encroachments of other plants and animals (118-9).

This curious cast of language within a landmark treatise on geology depicts conquest as being as blameless as the processes of animal and vegetal evolution. Lyell's slippery digression between a defense of "wield[ing] the sword of extermination" and an ecological account of species competition suggests an underlying political import to the passage, one that aligns the ostensibly objective European geologist with the interests of empire. Europe's military expansion inflicted "havoc" and "extermination" on other humans as well as other species, and Lyell's defense of "progress" requiring "the entire extirpation of some other" evokes the genocidal violence then and previously carried out around the globe. In this geological framework, indigenous populations are categorized with the "plants and animals" that have failed in the struggle for life and thus deserve extinction. None of these three groups are thought of as having rights to property and territory, for the white imperialist "obtain[s] possession of the earth" from nameless, faceless entities, and the whole earth becomes an "acquisition" to be "defend[ed]...by force." Lyell's account of species extinction thereby indirectly confirms the righteousness of conquest, even as the expansion of empire was precipitating further species extinctions through habitat destruction, overhunting, and the introduction of invasive European species such as rats, cats, and rabbits.

Lyell's positioning of the European imperialist as the rightful evolutionary inheritor of the earth was not unique and would be developed further in the wake of Darwin's *Origin of Species*. However, in the context of geology, this apparently foregone conclusion was shadowed first by the discoveries of the Megalosaurus and Iguanodon in the early 1820s, shortly followed by other gigantic fossil reptiles, many carnivorous, and subsequently by the rise of the United

States as a competing imperial power and center of scientific research. Before independence, American naturalists existed in a mutually beneficial but asymmetrical relationship with the credentialed, established naturalists in the scientific metropolises of London and Paris, sending them letters and specimens to be approved, categorized, and published (Parrish 8). After independence, the rapid advances of American natural history were celebrated as demonstrations of the new nation's outsized potential and scientific endowments, a pride that may be illustrated by Thomas Jefferson's decision to fill the East Room of the White House with giant fossil bones (Mitchell 116). The frequent excavation of American fossil specimens superior in quality to any in Europe compensated for any blow to national pride caused by a relative lack of antiquities (Mitchell 112).

Nor was the United States the only country to leverage American fossil specimens for political points. When Rembrandt Peale's and Charles Willson Peale's mammoth skeleton was shipped to London for display in 1802, in the middle of the French Revolutionary Wars, it inspired Charles Dibdin to compose "Mammoth and Buonaparte," a mocking song for the stage about "Bonypart" and "little Boney" trying "to look as big as Mammoth" (O'Connor 33-5). For his contribution to the competitive spirit, Jefferson shipped a mammoth to the National Institute in Paris in 1808 with the note: "If my recollection does not deceive me, the collection of the remains of the animal incognitum of the Ohio (sometimes called the mammoth) possessed by the Cabinet of Natural History at Paris, is not very copious... it is with pleasure I can assure you that the addition to our knowledge in every department, resulting from this tour of Messrs. Lewis and Clarke, has entirely fulfilled my expectations" (309-310). The combination of gift and jab was a response to the French naturalist Buffon's assertion that American animals were degenerate, fewer and smaller than those in Europe (Mitchell 112-3). Mitchell notes that the letter's date is

Bastille Day (117). Jefferson's sly wordplay, offering a "recollection" to improve the "not very copious" "collection" of the Paris museum, combined with his boast in the success of the Lewis and Clarke expedition, and an appended catalogue of the boxes' contents that reads like a lecture in natural history, suggests that the choice of date was a deliberate dig at French pride.

American dinosaur finds rivaled and eventually exceeded those in Britain, Germany, and France (Brinkham 8). William Clark's journal entry of July 25, 1806, describing an exposed three-foot-long bone in Montana, gave an early hint of the fossil riches of the American West (Delair and Sarjeant 10-1). An illustration of that striking abundance might be found in the career of the paleontologist Othniel Charles Marsh, who, while working claims in Colorado and Wyoming at the end of the nineteenth century, excavated over 1,115 crates of fossil specimens that resulted in the identification of 21 new genera and 41 new specimens (Brinkham 9). In his 1888 report to the Royal Society, the British geologist John Hulke complained that the surpassing quantity and quality of fossil reptiles in the United States, compared to those in England, was such that "a strict comparison of the American and British Wealdon forms appears likely to throw much light upon the latter" (1035). For Hulke, this unexpected realization of British inferiority made the construction of a "Wealden" or British dinosaur osteology "increasingly urgent." The former unidirectional transmission of scientific authority had been reversed, and the primacy of British and French geology and natural history challenged. If Lyell's European imperialist no longer represented the pinnacle of scientific refinement, then the rock-solid geological reasons for European imperialism were cracking.

Meanwhile, the figure of the dinosaur began to appear in literature and sculpture as both an evolutionary threat and memento mori. In March of 1852, the first fossil reptile in fiction appeared in the opening chapter of Charles Dickens' *Bleak House*:

London. Michaelmas term lately over, and the Lord Chancellor sitting in Lincoln's Inn Hall. Implacable November weather. As much mud in the streets, as if the waters had but newly retired from the face of the earth, and it would not be wonderful to meet a Megalosaurus, forty feet long or so, waddling like an elephantine lizard up Holborn Hill (13).

In his analysis of this passage, Philip James Wilson observes that Dickens' reference to the Deluge and the related geological theory of catastrophism, which had fallen out of favor after the publication of Lyell's *Principles*, creates an atmosphere of obsolescence enveloping both the Megalosaurus and the similarly carnivorous and fossilized High Courts of Chancery (102-3). The implicit threat in this association is that England may someday share the fate of the Megalosaurus, growing first filthy, then extinct. Buckland has suggested a cartographic link to London's overloaded Fleet sewer at Holburn Hill, with both the Megalosaurus and sewage "threatening to overspill their buried realm and emerge into the contemporary world" (262-3). This would not be the last link between the dinosaur and excretion, mud, and digestion, nor the best known.

In 1854, five years before *On the Origin of Species*, Benjamin Waterhouse Hawkins realized Dickens' vision of a muddy Megalosaurus in London, in a sense, when he brought dinosaurs to Sydenham Park. Collaborating with Richard Owen, Hawkins constructed a series of massive models of prehistoric animals for display at Crystal Palace Park, including the Iguanodon, Hylaeosaurus, Megalosaurus, Taleosaurus, Plesiosaurus, Ichthyosaurus, and Pterodactyl. The Iguanodon alone, Hawkins told the Society of Arts, consisted of a monstrous quantity of construction material: "600 bricks, 650 5-inch half-round drain tiles, 900 plain drain tiles, 38 casks of cement, 90 casks of broken stone" (447). The Crystal Palace Company, a

private corporation that took over from the government committee after the 1851 Crystal Palace Great Exhibition (Marshall 287-8), spent £13,729 on the models (Secord 143), which entertained two million visitors a year until the end of the century (Mitchell 128). Hawkins and others, meanwhile, meant for the dinosaurs to be instruments of visual education for the public, and to this end included no signage, although they sold an optional explanatory booklet (Secord 145-6). The models were a temporal and spatial prolongation of the grandeur and profitability of the 1851 Exhibition and propounded a vision of the world continuous with that of the Exhibition.

The 1851 Crystal Palace Great Exhibition of the Works of Industry of All Nations, according to Anne McClintock, pioneered “the mass consumption of time as a commodity spectacle,” in that its dioramas and panoramas of natural and imperial history, for which viewers paid admission, consolidated and commoditized a vision of world history as unified and progressive (57-8). Roger Luckhurst describes the Great Exhibition as a reassertion of Britain’s commitment to industrialism and an emphatic rejection of the Chartist demonstrations that took place in the same park three years earlier (387). Though McClintock makes no mention of them, the Sydenham dinosaurs, planned as a continuation of the Great Exhibition, enacted the same processes of commercialization and consumption of history. Not only did they generate profit in conjunction with railway ticket sales, booklet sales, and toys, memorabilia, and postcards, with sales of the latter continuing to this day, the Sydenham dinosaurs hosted one of the most famous and picturesque acts of consumption in the Victorian era.

On New Year’s Eve, 1853, shortly before the models were formally unveiled, Hawkins held a dinner inside the mold used to cast the Iguanodon. Richard Owen presided at the head of the table, and guests included artists, investors, and Herbert Ingram, editor of the *Illustrated London News*, who described the event to his 100,000 subscribers (Secord 150-1). Hawkins may

have been inspired by the 1802 dinner held inside the Peale mammoth skeleton before its departure for London (O'Connor 35), in which case the spectacular dinner could be considered an attempt to equal the Americans and their prehistoric riches. Nancy Rose Marshall suggests that the Iguanodon dinner was meant in part to mitigate the horror of the models, whose immense size, gaping mouths, and conspicuous display of teeth might have engendered in their viewers a fear of being eaten (292-7). I would go further than Marshall and suggest that the models implicitly posed not only a threat to the individual but also to the species, namely that of out-competition and human extinction, but that their use as props in a publicity stunt, staging the evolutionary triumph of the English gentleman, diminished that threat. While the geologist and Oxford lecturer William Buckland was well known for dining on all kinds of unusual animals (O'Connor 80-1), the Iguanodon dinner took the image of the carnivorous geologist still further, insofar as Owen the scientist and Hawkins the artist had recreated a massive prehistoric body for the epicurean delectation of their fellow distinguished Englishmen. Although the menu consisted of game birds, turbot, whiting, hare soup, and wine, rather than reptile meat, the location of the diners within the cut-open form of the Iguanodon in contemporary engravings of the event positions them figuratively as modern predators consuming their prehistoric prey—an emphatically herbivorous prey, for that matter. One could describe the event and its accompanying flurry of press as a public lesson in the proper relationship of the present to the distant past and the appropriate roles of eater and eaten.

When the models became available to the public, writers and reporters frequently described the models as made of mud (Marshall 297-8), which, given the large quantities of glazed, fired, and crushed earth that went into the models, as well as the literary precedent of Dickens' muddy *Megalosaurus*, was a fair description. Hints of sewage and excretion also

appeared in descriptions of the models, and Marshall suggests that the location of the models in the lower regions of the park, which appear on a map as the bowels of a roughly human figure with the Crystal Palace for its head, may have contributed (290-8). Buckland's scandalous 1822 paper on the fossilized hyena bones and droppings in Kirkdale Cave, which established coprolites as a valuable object of geological research, likely also influenced the association of excretion and prehistoric monsters. The horrified fascination of the European public with the digestive processes of these monsters of geology, from teeth to bowels to tail, is reflected in contemporary dinosaur fiction. Verne's *Voyage* might well be the novel most involved with the digestive processes of prehistory, for its protagonists progress like morsels of food through tunnels repeatedly referred to as the "bowels of the earth," eventually encountering dinosaurs that appear at first as many-headed monstrosities engaged in a battle of consumption.

Just as the question of who was eating and who was eaten could be answered either reassuringly and conservatively or subversively, depending on where the modern European gentleman fell in the imagined food chain, so an author or artist's choice of the temporal placement and status of prehistoric creatures indexed either a reactionary or revolutionary political ideology. For Buckland, the geological retrospect, an extended prose passage that leads the reader through the epochs in what amounts to a written account of the visual experience of deep time, is an essentially conservative trope, in contrast to the evolutionary narrative with its emphasis on the development of one species into another (204-7). Buckland notes that the former shows prehistoric species as distinct and static, offering the pleasures of learning and spectacle without any suggestion of continuity or transformation, and thereby not presenting any threat to the social order, while the latter, with its suggestion of fluid boundaries, might be seen as incitement to rebellion by the working class. The geological retrospect is a common feature

throughout literature of the nineteenth century, appearing in two of the four novels in this study, Verne's *Voyage* and De Mille's *Beyond the Great South Wall*, in addition to many more besides. An illustrative example, occurring in isolation, may be found in Henry Morley's "Our Phantom Ship on an Antediluvian Cruise," which appeared in *Household Words* in 1851.

Part essay, part story, part geological lecture, the retrospect is justified by the state of the world outside Europe, newly shrunken and rendered accessible by the transformative capabilities of imperialism:

Now that we can visit any portion of the globe by taking a cab or an omnibus to Leicester Square, who wants a Phantom Ship to travel in? The world, as it is, has taken a house in London, and receives visitors daily. Nothing remains now for the Phantom, but a sail into the world, as it was, or as it will be (492).

In Morley's vision of modern geography, purely spatial excursions have become effortless and unremarkable as a result of the commercialization and spectacle-producing processes of European empires, which have imported the visual spectacles of distant countries and installed them within the metropolis. Leicester Square's enormous variety of dioramas and panoramas permitted Londoners to view the remote locales of Ohio, New Zealand, Australia, India, and the Arctic from the comfortable familiarity of their own city (Luckhurst 388). Wyld's Great Globe, which opened to the public at the time of the 1851 Great Exhibition, was an enormous hollow sphere located in Leicester Square that presented on its interior a plaster scale model of the world, inverted. As Buckland notes, Wyld's Globe is the likely referent for Morley's "any portion of the globe" in Leicester Square, and Morley positions his geological retrospect as a competitor for the entertainment of the audiences of Wyld's Globe and other geographic visual spectacles (255-6).

Wyld's Great Globe was both a symbol of British dominance in geopolitics and knowledge production and a consequence of it. Its commercialized the results of the British Admiralty's transoceanic mapping expeditions, which included the *Beagle's* voyage to the Galapagos. Along with Leicester Square's other panoramas, models, and theatrical displays, the Great Globe produced a dramatic illusion of actual travel in which the viewer, gazing down on cities and countries, became an invisible and all-seeing authority (O'Connor 270). These pleasurable visual experiences of the distant and exotic did not require their visitors to undergo the hassles of travel, translation, or actual encounters with faraway peoples in their own spheres, only cash. The proliferation of commercial ventures that exploit imperial control over space, as "Our Phantom Ship" explains, leaves only the dimension of time as a viable source of entertainment for the jaded Londoner, with the side benefit of some geological education. Hawkins' financial backers would later conclude the same. As geology lecturer, carnival barker, and tour guide, Morley leads the reader is backwards through the epochs, pointing out everything from a South American Megalotherium to New Zealand's Dinornis to a pelagic "Herr Ichthyosaurus" before he runs the ship aground in a nation-less, unmapped world of coral, lowers the boats, and rows back to the safety of St. Paul's and empire. Like Morley's cruise, Hawkins' models set aside the visual conventions of dioramas and panoramas to position the viewer at the same level as the dinosaurs, though at a distance, neither superior to nor immediately threatened by them. Dinosaur fiction would change the relationship still more dramatically.

Late nineteenth and early twentieth century dinosaur fiction is, in a sense, an expression of the same commercial and literary turn toward the scenes of deep time that motivated Morley and Hawkins and other Victorian writers, among them Thomas Hardy, Hugh Miller, and Charles Kingsley. But this turn manifests differently in dinosaur fiction, which departs from Morley's

presentation of antediluvian monsters as segregated from modernity and neatly enclosed in the boxes of their epochs, as well as Hawken's presentation of the same monsters as spatially separate from public life and the teeming crowds and subject to the appetites of visiting British gentlemen, in that its monsters are alive, evolutionarily triumphant, and in close and violent conflict with the modern European imperialist. Neither offering a safe and closed-off geological retrospect, nor the ceaseless fluidity and change of the evolutionary narrative, dinosaur fiction occupies a strange place between conventional affirmation of the status quo and the complete dissolution of social and racial hierarchies, between the pleasure of panoramic tourism and corporal and existential terrors.

CHAPTER TWO

THE ABOMINATION OF RESISTANCE: A *STRANGE MANUSCRIPT*

FOUND IN A COPPER CYLINDER AND BEYOND THE GREAT SOUTH WALL

The controlling organizational principle of dinosaur fiction is a politics of eating in which the conventional image of the victorious imperialist, geologist, or gentleman dining on his spoils is subverted by the multipartite threat of anthropophagy. The two distinct forms that recur in dinosaur novels are cannibalism and devouring by antediluvian monsters, which tend to produce antithetical effects in the characters facing them. Cannibalism, with its hints of racial degeneracy and contagion, threatens only the individual. It can be prevented or vanquished with the application of superior European military might, then replaced by the moderating influences of civilization and enlightenment. In contrast, carnivorous dinosaurs with a taste for humans threaten not only the European explorer but all characters of all races, as they lack the ability to discriminate by social class or nationality, and resist force and subjugation more successfully than any indigenous population. The threat they pose is to the species more generally, and like H.G. Wells' blood-drinking Martians, the suggestion of eventual extinction tends to soften the social distinctions invisible to them. In James De Mille's *A Strange Manuscript Found in a Copper Cylinder* (1888) and Frank Savile's *Beyond the Great South Wall: The Secret of the Antarctic* (1899), the figure of the autochthonous and armored dinosaur disrupts the regular processes of conquest and knowledge production, defies the civilizing force of European firearms, and overturns the imperial narrative of progressive linear time.

The frame narrative of *A Strange Manuscript* has four friends adrift in a yacht between the Canaries and the Madeira islands in the winter of 1850: Lord Featherstone, the owner of the

boat; Noel Oxenden, recently of Cambridge; Dr. Congreve; and Melick, “a *littérateur*” from London (De Mille 148). While the crew remains anonymous, these four named characters form a learned and landed cross-section of the British elite, representing wealth, science, philology, and literature (Gerson 224-35). To pass the time while they are becalmed, the friends race four paper boats—the first of many reflexive gestures in the novel, given that they themselves occupy the “paper boat” of the fictional *Falcon*—and find the titular manuscript floating in a copper cylinder.

In the manuscript, Adam More, a former first mate of the convict ship *Trevelyan*, recounts his inadvertent journey under the earth and into a warm polar region, where he is rescued by a race called the Kosekin. Following the tradition of inverted and utopian Antarctic societies of novels such as Robert Paltock’s *Life and Adventures of Peter Wilkins* (1751) and James Fenimore Cooper’s *The Monikins* (1835) (Leane 30-2), the Kosekin embody values inverse to those of Europeans, loving darkness, death, poverty, and suffering, hating themselves, and competing to give away their wealth. They hunt dinosaurs as a religious obligation and practice cannibalism as a mark of honor. Interspersed with sometimes witty, sometimes dryly academic commentary from the four friends in the frame narrative, More’s plain account is woven throughout with the terror of being eaten, whether by the Kosekin or the dinosaurs.

As befits four British imperialists familiar with their roles as consumers and apex predators in the framework of empire, their first impression of More’s manuscript is of food for them to eat. Before opening the copper cylinder, Dr. Congreve guesses that it contains “some kind of preserved meat... Perhaps something good—game, I dare say—yes, Yorkshire game pie.” Oxenden proposes “liquor,” but the doctor insists that the contents are “meat of some sort... We can have it for dinner” (De Mille 5-6). The assumptions about the cylinder’s contents

reveal the four friends' epicurean proclivities, and the doctor's thoughts of "dinner" anticipate the dinner that will interrupt the first stretch of More's manuscript in Chapter 7. The manuscript that emerges from the copper cylinder proves not meat but "some vegetable product" that the doctor declares "better than meat" (De Mille 7-8). This "sententious" and idealistic valuation of the literary "vegetable product" over meat is repeatedly proven false as the friends abandon their reading again and again for fine meals by Lord Featherstone's French chef that reaffirm their topmost position in the imperial food chain: "on board the *Falcon* dinner was the great event of the day, and in its presence even the manuscript had to be laid aside" (De Mille 60).

Mealtimes divide and structure the text and its reading. Though debate continues over whether the novel was complete at the time of De Mille's death (Lamont-Stewart 31, Monk 240-3, La Bossière 52), the end of the manuscript and the end of the frame story are tidily symmetrical, as Kilgour observes (32). At the very last moment, Adam More saves himself and his beloved, Almah, from being eaten by the Kosekin by shooting the Chief Pauper and Chief Hag, and is promptly acclaimed as a deity along with Almah. The manuscript closes with Almah suggesting they seek "rest and food," as Lord Featherstone stops reading aloud with the words, "I'm tired, and can't read any more. It's time for supper" (De Mille 269). The reader is returned to the act of eating that punctuates and motivates all of the major events in *A Strange Manuscript*: the four friends' sporadic pauses for dinner, More's ill-fated seal hunt, his companion Agnew's murder and consumption by the Antarctic natives, the flight from the cannibalistic Kosekin, the athaleb's stopping to eat, and so on.

In "Cannibals and Critics," Kilgour argues that cannibalism operates as the ultimate symbolic boundary between the strong European sense of an autonomous self and the myth of a non-European Other that consumes and destroys without respect for the individual identity (20-

2). Agnew sympathizes with the Antarctic natives that More finds “abhorrent” and “repulsive,” compared to whom “the wretched aborigines of Van Diemen’s Land, who have been classed lowest in the scale of humanity, were pleasing and congenial” (De Mille 30). His identification of self with Other collapses the carefully constructed walls of racial difference between civilized European and savage cannibal, and his death and physical integration into their bodies might be thought of as the logical result of crossing those racial boundaries (Kilgour 27). More, on the other hand, clings to his gun and his belief in his own racial superiority to enforce the separation of European and savage, “sure that our only plan was to rule by terror—to seize, to slay, to conquer” (De Mille 37), and thereby preserves the integrity of his own body. The cost, if it is a cost, is his unabashed rejection of the natives’ humanity: “These creatures seemed like human vermin” (De Mille 33). His hatefulness, he admits, “defies reason” (De Mille 33) and undermines his own unstated claim to rationality, yet also serves to preserve him as an individual.

Yet for all his militaristic posturing and frequent use of his gun, Adam More does not entirely escape the dreaded act of cannibalism, for as Patricia Monk writes, his literary remains are pounced upon and consumed by the four friends on the aptly-named *Falcon* (244), as well as by the reader of the novel. The displacement of De Mille’s authorship by the nested story structure allows an interpretation of De Mille’s novel as cannibalizing More’s manuscript, digesting it with the exegetical and critical commentary of the frame story chapters. De Mille’s reader is thereby grouped with the cannibalistic Kosekin who wish to honor More by eating him, a move both unsettling in its dissolution of the novel’s established racial boundaries and reassuring in its confirmation of the reader’s position as ultimate consumer. Nor is their devouring of More’s story the only hint of cannibalistic tendencies among the four British men.

After his early guess of “meat” and Oxenden’s guess of “liquor” for the contents of the cylinder, Dr. Congreve defends his claim by citing the “pretty large packages of pemmican for the arctic expeditions.” Oxenden then suggests that the cylinder contains “the mangled remains of one of the wives of some Moorish pasha,” a horrifying variation of Dr. Congreve’s “meat” and “meat can” (De Mille 6). Between the intimations of cannibalism, the mention of arctic pemmican, and Dr. Congreve’s later digressions on the voyages of Sir James Clark Ross, the four friends on the *Falcon* seem to possess an anachronistic and unspoken awareness of John Rae’s 1854 report on the fate of the Franklin expedition.

Though expeditions to the Arctic and Antarctic were at first associated with whiteness and purity, in contrast to simultaneous exploration of darkest Africa, when Rae presented evidence of cannibalism among the members of the lost Franklin expedition, which had set out to explore the Canadian Arctic, the polar regions became sites of extreme anxiety (Kilgour 24-5). Dickens disparaged Rae’s Inuit informers in two passionate editorials in *Household Worlds*, declaring in the December 2, 1854 issue that “we believe every savage to be in his heart covetous, treacherous, and cruel,” while the European was made of sterner stuff: “the better educated the man, the better disciplined the habits, more reflective and religious the tone of thought, the more gigantically improbable the ‘last resource’ [cannibalism] becomes” (362-5)⁵. On December 9, after giving a long list of examples of noble privation and suffering without cannibalism, Dickens admitted a few exceptions involving an “incessantly drunk” crew “of an inferior class” (386-7), or a ship with “no discipline” (388). In short, however much Dickens protested, in the end he had to allow the possibility of the “savage” practice of cannibalism on European ships. The extended inventories of tinned and preserved food given in much adventure

⁵ The latter quotation appears in Kilgour (25).

fiction, including dinosaur novels, may well be a response to the unspoken fears of privation leading to white cannibalism. Even as De Mille's novel embraces and elaborates the cannibalistic practices of the black-skinned Kosekin, the elite white characters on the *Falcon* luxuriate in an abundance of expertly prepared food, limiting their own dabbling with cannibalism to insinuations, imaginings, and the approved consumption of a "vegetable" manuscript.

The fear of anthropophagous dinosaurs is likewise physiologically overwhelming, but unlike cannibalism, it prompts increased concern for others, including those of other races, in addition to fear for oneself. Furthermore, the fear of dinosaur anthropophagy appears to be more visceral and instinctive than the learned fear of dark-skinned cannibals, insofar as the threat of cannibalism increases suspicion, vigilance, and critical interpretation, while the threat of being eaten by prehistoric monsters excludes critical or analytical interpretations of the situation. Take, for example, More's first encounter with an athaleb/pterodactyl:

For a moment I stood almost lifeless with terror and surprise. Then I shrank back, but Layelah laid her hand on my arm.

"Don't be afraid," said she; "it's only an athaleb."

"But won't it—won't it bite?" I asked, with a shudder.

"Oh no," said Layelah; "it swallows its victuals whole."

At this I shrank away still farther (De Mille 185).

Only during a subsequent period of calm discussion aboard the becalmed *Falcon*, free from fear, displaced by five chapters and six years from the incident itself, does the skeptical Melick identify this passage as "a threadbare joke, which everyone has heard since childhood" (De Mille 228), presumably along the lines of "Does your dog bite?" "No, he swallows his food whole." But access to the humor that Melick detects is obstructed within the reading itself by the

evocation of anthropophagic terror and monstrosity as well as More's physical shrinking and shuddering. Melick, it should be noted, is De Mille ventriloquizing his future critics: he immediately pronounces More's manuscript a "transparent hoax," the result of "some fellow want[ing] to get up a sensation novel" (De Mille 61), condemns the style of writing as "detestable... tawdry... he shows everywhere marks of haste, gross carelessness, and universal feebleness" (De Mille 228), and urges the unnamed author to study *Gulliver's Travels* and *Robinson Crusoe* as literary models. Melick's digression into critical digestion of the vegetable text closes the open bracket of Layelah's joke about eating even as it facilitates the reader's own rumination.

The twelve-foot pterodactyl dwarfs Adam More, who dwarfs the Kosekin, who are "all... of small stature" (De Mille 54), but the pterodactyl is relatively small among the novel's monsters. In De Mille's dinosaurs we can find a hybridized monstrousness, borrowing from both the older, geological imagining of the monstrous as patchwork and the newer, Romantic rhetoric of excessive life, appetite, and growth (Gigante 434-7). De Mille's pterodactyl looks like "some enormous bat" with "terrible teeth like those of a crocodile," for instance, while his Megalosaurus "had a body like that of an elephant, the head of a crocodile, and enormous glaring eyes" (185, 100). As for the idea of the monstrous as overgrowth, De Mille's Iguanodon is "a hundred feet in length," with jaws that "opened to the width of six or eight feet" (97), and its enormous bulk, the physical expression of a history of extravagant consumption, is what kills its hunters when it rolls over. Meanwhile, the Plesiosaurus has a twenty-foot-long neck and an "immense body" (De Mille 89), though no total length is given, and the Megalosaurus is "full sixty feet in length" (De Mille 100). Malcolm Parks believes De Mille to have exaggerated the lengths given by Richard Owen and Gideon Mantell ("Explanatory Notes," De Mille 286-9).

While Dr. Congreve describes the Iguanodon as “fe[eding] on herbage,” in accordance with Gideon Mantell, More’s description of its “rows of sharp teeth” (De Mille 97) suggest that the Iguanodon of the Kosekin was deliberately changed into a carnivorous terror (De Mille 148, 97).

The dinosaurs come only gradually into the reader’s view, in a ranked reconstruction somewhat reminiscent of the early geologists’ attempts to piece together fossil bones. First, More receives an indistinct description that ignorance or linguistic difference makes inadequate, such as Almah’s explanation of the sacred hunt: “Her words suggested something of vague terror, vast proportions and indescribable ferocity” (De Mille 89). Then More himself reports a direct encounter with the monstrous. Always, at first sight, they appear as “living things” or “some living thing” (De Mille 89, 100), or else they announce their presence by a “sound as of living things” (De Mille 185) or “a sound that spoke of life... quick, heavy pantings, as of some great living thing.... It was as though some living, breathing creature were here” (De Mille 45-6). When More is capable of clearly distinguishing them, his description turns from their terrifying excess of life to the more traditional construction of the monstrous as a patchwork of known animals, which may be read as an attempt to contain the uncontainable literary monstrous with the standard descriptive tools of geology, or to coin knowledge from terror. It is left to Dr. Congreve, however, with his credentials and memberships, to assign the appropriate Linnaean label to each creature and thereby stamp the manuscript with elite scientific approval. This act of official naming turns a soi-disant travel account meant for a father’s eyes into a mine of profitable, exploitable, and impressive knowledge. The gold that Congreve apparently extracts here, however, turns out to be pyrite.

In his most egregious overreach, Dr. Congreve suggests that what More describes as undifferentiated “objects... like alligators” from a distance are a diverse array of Ichthyosaurus,

Cheirotherium, Teleosaurus, and Hylaeosaurus (De Mille 147), when the reader, with equal access to More's account, knows that the only textual basis for Dr. Congreve's variety and specificity is the vague phrase "like alligators." But his decisive identifications are seductive, for the reader struggles with More's plain secondhand depictions much as More himself struggles with Almah's. However inconsistent or questionable, Dr. Congreve's recourse to paleontological taxonomy offers his audience a sense of authority and precision, as well as the ability to elaborate upon More's account with prior, external knowledge. But when Dr. Congreve's lecture segues into soliloquy, his passion for scientific description grows monstrous and parodic with excess: "I see that river, with its trees and shrubs, all unknown now except in museums... the lepidodendron, the lepidostrobus, the pecopteris, the neuropteris, the cyclopteris..." Melick finally interrupts the flood with a sardonic "Talk English, doctor" (De Mille 149). The geologic monologue itself, in its alien and incomprehensible overgrowth, takes on aspects of the monstrous and threatens to devour the rest of the chapter. Only the command to "talk English," or to return to the conventions of literary dialogue, can cut it short.

Even as they "pant," "breathe," and otherwise demonstrate their immoderate liveliness, the dinosaurs inflict death upon the Kosekin with exuberant and monstrous excess. On More's first sacred hunt, he encounters the Plesiosaurus:

With a sweep of his long neck... a half-dozen wretches were seized and terribly torn by those remorseless jaws.... The slaughter was sickening... It seemed to me that every man of them would be destroyed, and that they were all throwing their lives away to no purpose whatever... The destruction of life had been awful. Nineteen were dead, and twenty-eight were wounded, writhing in every gradation of agony, some horribly mangled (De Mille 90-1).

The plesiosaur's human victims are a largely undifferentiated mass, separated only by number and degree of injury. More, who has not yet learned the evolutionary necessity of valuing the group above the individual, intervenes to save the life of the Kohen, his host, but he has misunderstood the purpose of the hunt. The Kosekin all desire death, but suicide is prohibited, murder is punished, and sacrifice is reserved for the most honored elite. The monsters of the sacred hunt exist outside of the closed Kosekin system that Flavio Multineddu calls an "economy of death" (71), and as neutral, natural powers, they provide an egalitarian opportunity for the longed-for honorable death. More is therefore appalled when the survivors ritually kill the wounded, who exhibit every sign of gratitude. From the perspective of the Kosekin, the only unnecessary death may have been that of the plesiosaur itself at the end of More's rifle. From More's perspective, which is to say the logic of empire, the sacred hunt is a horrific practice because it permits a fair competition between prehistoric monsters and men, unassisted by firepower or mechanical superiority. Even while the Kosekin economy of death conserves the human species, it presents the unthinkable prospect of human evolutionary inferiority and the possibility of extinction.

At the same time, though the Kosekin economy of death assigns exact places and purposes for each death and each dead body, the dinosaurs apparently escape from that order. The dead Kosekin that are not sacrificed and eaten are placed in niches in crypt-like caverns. We even know the eventual fates of the two kinds of large birds that the Kosekin use as beasts of burden, for early on More is served "the flesh of fowls," "some tasting like goose, others like turkey, others like partridge.... Judging from the slices before me, they must have been of great size" (De Mille 55). But though the bodies of the Plesiosaurus and Iguanodon are dragged back to the city, what happens to them is never explained. This regular disappearance of enormous

bodies, in a society that reveres and carefully stores or ritually consumes its dead, is either a curious omission or else a symbolic and symmetric gesture of escape. Their resistance of every kind of human systemization, European and non-European alike, models an alternative way of life, even their propensity to violence allows an alternative way of death outside of the controlled and regulated hierarchy of Kosekin society.

The slight exception to this picture of dinosaurs as luxurious and deadly life may be the Kosekin's five tame pterodactyls, which are used once a year to ferry the Chief Pauper to a barren volcanic island to die by starvation. While the pterodactyl terrifies More at first, Layelah reassures him that its jaws are "unmuzzled only at feeding-time" adding, "if I were to open the gate and remove his muzzle he would be off like the wind" (De Mille 186-7). This seems to suggest that feeding times are linked with flights. The threat of being eaten, of losing one's physical integrity and the boundaries around the individual self, is thus implicated in the exercise of mobility and freedom. As Almah explains to More earlier, they cannot remain in the wilderness because it is "full of fierce wild beasts. We should be destroyed before one *jom* [day]," while escape across the ocean is impossible because "the sea is full of monsters, and you and I would perish" (De Mille 99-100). To leave human society is to risk being eaten, but to remain among the Kosekin is to be certain of being eaten, and so More and Almah flee.

When More and Almah arrive on the barren island of Magonés in an attempted escape, the pterodactyl that carried them locates and feeds on a "vast sea-monster lying dead... like one of those monsters which I had seen... at the time of the sacred hunt" (De Mille 204). The corpse is probably a plesiosaur or ichthyosaur, if we follow Dr. Congreve, and the novel assumes without explanation that neither More nor Almah would consider eating it, perhaps because De Mille's readers implicitly understand the Western dietary taboo against eating reptiles other than

turtle (Simmons 301, 310). More catches and offers Almah two lobsters instead, from which she “recoil[s],” because her own people consider them “vermin” (De Mille 205). Stephen Milnes describes Almah’s revulsion toward lobsters as a marker of the constructedness of cultural categories in the novel, operating in similar manner to the overseas sojourn that teaches the Kohen Gadol values heretical to the Kosekin. More, however, does not benefit from this demonstration and never comes to recognize the ingrained prejudices underlying his own application of the word “vermin” to the Kosekin race (99). In the end, More and Almah share the dead fish washed up on the shore, which according to Layelah are the usual fare of the pterodactyl.

The pterodactyls’ preference for “monster” meat over the flesh of fish suggest a possible purpose for the vanished dinosaurs brought back from the sacred hunt: as fodder for the athalebs. Layelah calls them “very docile,” and More feels “perfect confidence” after mounting one for the first time, comparing the pterodactyl to an elephant in a menagerie, that is, a foreign strength made subject to European discipline (De Mille 186-7). But this demonstration of the pterodactyls’ voracious and uncontrollable hunger hints that their feral nature might not be as submerged as the humans assume. Unlike the elephant, the pterodactyl is carnivorous, possessed of “terrible teeth” and crocodilian jaws (De Mille 185). When More attempts to kill one, it survives in spite of him. The pterodactyl shares these qualities of sharp teeth, carnivorous diet, and impervious life with all of De Mille’s monsters.

On the basis of More’s descriptions of dinosaurs, Dr. Congreve speculates that “the so-called fossil animals...may not be extinct. There are fossil specimens of animals that still have living representatives. There is no reason why many of those supposed to be extinct may not be alive now” (De Mille 143). The suggestion that Cuvier’s conclusions may be incorrect would be

radical in the field of geology, though the novel does not treat it as such: its phrasing, full of double negations rather than positive assertions, is tempered by Congreve's professional and scientific restraint, and elicits no direct response from the others. Congreve's reasoning, that the dodo and moa, alive until the last fifty or hundred years, died "not through the ordinary course of nature, but by the hand of man" (De Mille 144), and could therefore plausibly continue to exist outside the range of human habitation, convicts the appetites and imperial ambitions that have reduced many species to a purely fossilized or taxidermic existence in museums. At the same time, his suggestion projects an optimistic vision of destruction undone, of errors rectified, of untouched and uninhabited lands where species believed to have recently become extinct still thrive: an undigested country, full of plenty, that has yet to be devoured. The ecological logic of the living dinosaur is conservative and comforting: if fossil reptiles might still be alive in remote places, why not the dodo?

Melick counters Congreve's reflective critique with a ditty Lyellian in its rejection of regret:

Oh, the dodo once lived, but he doesn't live now;

Yet why should a cloud overshadow our brow?

The loss of that bird ne'er should trouble our brains,

For though he is gone, still our claret remains.

Sing do-do—jolly do-do!

Hurrah! in his name let our cups overflow (De Mille 145).⁶

⁶ A second dodo poem follows this one. Though Malcolm Parks suggests in the notes to this page that De Mille composed the two poems himself, a variant of the first poem was published as part of an anonymous anecdote in *Lippincott's Magazine* in 1868, long before the serialization of *A Strange Manuscript* but after the period in which De Mille is believed to have written the novel ("Our Monthly Gossip" 226).

In the context of the novel, Melick's little song minimizes the terrors of species extinction even as it critiques the consumption mentality of the singer and audience. An excess of "claret remains," enough to overflow, certainly enough to satisfy, and therefore the loss of one species "ne'er should trouble our brains." Melick's interpretation forecloses the possibility of species recovery or rediscovery: like Lyell, writing in *Principles of Geology*, Melick characterizes ecological destruction as irreversible, but not regrettable. Though antithetical to one another, both Congreve's and Melick's responses to More's visions of vast, destructive, living fossil reptiles contain the consolatory idea of the human as the ultimate consumer and destroyer of all other forms of life, the agent of extinction rather than a species vulnerable to it.

More occupies the position of apex predator only once, however, when he shoots and kills the Plesiosaurus. The Kohen falls on his knees before More and calls the rifle a *sepet-ram*, or "rod of thunder" (De Mille 94), foreshadowing the final scene in which all Kosekin kneel to More and declare him "Father of Thunder" and "Judge of Death" (De Mille 262-4). Otherwise, as a representative of modern European man, both More and the rifle he wields are impotent at best and self-destructive at worst. In the Iguanodon hunt, on the other hand, More only wounds the dinosaur, which the Kosekin kill without further assistance, and he is himself injured when his mount bolts and throws him. Surprised by a Megalosaurus, he "start[s] up, rifle in hand," but it is Almah's wits and the speed of their birds, not his firepower, that save them (De Mille 100-1). Even in the case of the smaller pterodactyls, More is incapable of killing despite a clear announcement of intent: "I will kill this athaleb!" (216) He "fire[s] both barrels" at a "vital part under the wing" (De Mille 216-7) with the purpose to kill, but again his demonstration of European weaponry only injures the target and endangers himself.

Deified as the Kosekin “Judge of Death,” More presumably shares the dinosaurs’ function as supplier of death, though he seems inferior by far to the Iguanodon, Plesiosaurus, and Megalosaurus, having only killed two Kosekin, the Chief Pauper and Chief Hag, apart from those he encountered with Agnew. Although the dinosaurs resist the civilizing power of his rifle, the Kosekin remain vulnerable to it, as long as More has ammunition. On that point, an early reviewer complains that More appears to have an inexhaustible magazine (qtd. in Monk 233). Milnes suggests that More’s account is an “allegory of the colonial encounter,” for with the use of his rifle, eventually More “reaps all the rewards desired and imagined by the colonising West: power, love, wealth, the capacity to control and govern a foreign culture” (88-9). This omits, however, the continued existence of De Mille’s inassimilable and resilient dinosaurs, which continue to threaten the margins of More’s new empire, insensible to political changes, as well as the impossibility of More’s return to Europe. There is no such thing as total power in the presence of these monsters, in the unreachable atopias at the edge of empire.

In sum, with their formidable size and millions of years of continued survival, the dinosaurs of De Mille’s South Pole present a lethal, natural force not easily incorporated into any human social system, much less the European imperial narrative of steady progress through linear time. Even the smallest, domesticated pterodactyl remains unforgettably monstrous and capable of devouring its rider. Yet these monsters also offer the prospect of mobility and escape, the theoretical possibility of reversed extinctions, even a delayed moment of humor in an otherwise solemn narrative. While the threat of cannibalism causes More to retreat into ideas of racial superiority to preserve himself, refusing any identification with the “human vermin” who later prove to be high-ranking Kosekin, it is the Kosekin Layelah who introduces him to pterodactyls, and the non-Kosekin but non-European Almah who shows him the Iguanodon and

Plesiosaurus, and More considers an interracial marriage with both of them before settling on Almah. The existential threat posed by De Mille's dinosaurs, creatures capable of out-competing and exterminating both modern and premodern man, are enough for the white, male, British protagonist to overcome his beliefs in racial purity and white superiority, though these same beliefs protected him from the racialized threat of cannibalism, to the extent that he willingly chooses a non-European, Semitic bride from two considered candidates, one a member of the race he describes as "vermin."

At the same time, Adam More does not wholly escape the threat of cannibalism, for his "vegetable" life narrative is first mistaken for "meat" and subsequently devoured not only by the *Falcon's* four representatives of empire, but also by De Mille's reader. The reader's implied complicity with the actual cannibals of the manuscript only further undermines the racial divisions between the dark-skinned Antarctic Kosekin and De Mille's white reader. Furthermore, despite carefully dating his manuscript and himself, More has sailed out of the chronology of empire forever, never to return to the metropolis with wealth and profitable knowledge, never to sell his sensational account to the papers, never to enjoy any modern technology other than his rifle. The continuing development of the Kosekin under his rule will never enter the world history displayed in Leicester Square. Even while describing an unknown region and race, More's account carves out a region of darkness that remains effectively unknowable to the reader, cut off from any possibility of a sequel.

The single Brontosaurus in Frank Savile's *Beyond the Great South Wall* operates in comparable ways to De Mille's dinosaurs, rendering firearms useless, disturbing the teleology of empire, and making possible an interclass marriage between two peripheral characters, Gerry and Violet. A survivor from prehistory, and thus an unavoidable kink in any narrative of evolution

and progress, Savile's dinosaur not only outlasted the Mayans, it would have outlived the Europeans were it not for a geological *deus ex machina*. While alive, the dinosaur engages the Europeans in an evolutionary "struggle for life" in a peripheral atopic space, where the imperialist no longer enjoys a technological advantage and the outcome of the struggle can no longer be assumed. For all its remoteness, Savile's Antarctic continent is superimposed over England, with visions of the Crystal Palace (142), Windermere (149), and the Thames (198) that figure the home country as vulnerable to the distant prehistoric monster.

Plain Captain Jack Dorinecourte, our narrator, is promoted by the end of the first chapter to Lord Heatherslie following his uncle's death to malaria in Central America. The family lawyer informs the new Lord Heatherslie that his inheritance is composed of an "Irish rent-roll"; an immensely valuable coin collection worth at least a hundred and thirty thousand pounds, including several mysterious gold coins; a letter from his ancestor, the Elizabethan admiral Sir John Dorinecourte; and a hieroglyphic scroll written in octopus ink that the late Viscount Heatherslie had taken with him to Central America. The Admiral's letter demands that his descendents accomplish what he himself was unable to do, that is, to locate the gold-laden Mayan fleet that fled the Spanish invasion of the Yucatán and "be to them a safeguard from their [Spanish] enemies, using the might of England to bulwark them from their foes" (Savile 37). This statement of altruistic purpose and an ostensible thirst for "knowledge" are a transparent cover for the former privateer's fascination with rumors of the "ancient treasures of that helpless race" and "wealth beyond desire or conception" (Savile 34-6). It was this quest that sent Lord Heatherslie's uncle to Central America, and Lord Heatherslie is reluctantly persuaded by the lawyer and his friend Gerry to take up the business, to distract himself and Gerry from their disastrous courtships.

Here, at the beginning of the novel, the logic of the evolutionary narrative is transparent. In the evolutionary framework, the Dorinecourtes' generational quest to acquire resources for a family lineage, in its appeal to group loyalty and the survival of a bloodline, properly overrides the individual drive to mate and reproduce. Eventually the protagonist is rewarded with the achievement of both individual and group goals, having correctly if reluctantly first chosen the advancement of his family. By this logic, the death of a single, non-reproductive individual is neither a tragedy nor a felt loss, but an inheritance, and the new Lord Heatherslie neither grieves his unmarried uncle nor condoles his uncle's former servant.

At Chichitza on the Yucatán, the French Egyptologist Lessaution translates the hieroglyphic scroll, which encourages the Mayans still in Central America to follow the advance Mayan fleet to the Antarctic land of their deity "Cay." Lord Heatherslie agrees to outfit an Antarctic expedition. The former American whaler that he commissions, the *Raccoon*, rescues the survivors of a shipwreck, including his and Gerry's ladyloves, the girls' interfering mother, and their two rivals, before being carried on a freak wave over the high Antarctic cliffs into the land beyond. There the party discovers Mayan ruins and bodies, as well as the carnivorous Brontosaurus called Cay.

Professor Lessaution, the only non-British member of the group, and the primary object of mockery, occupies a pivotal position in the narrative. Lord Heatherslie's conspicuous nationalism leads to his caricaturing of Lessaution as an effeminate French stereotype until they encounter the Brontosaurus, when national distinctions are set aside: Lessaution squeals frequently (Savile 86, 92, 225), speaks "ecstatically" (Savile 62, 130), interferes with his hired cook "like a very *cordon-bleu*" (Savile 63), attempts to embrace the stolid Lord Heatherslie (Savile 62), and is left behind with the ladies because "his build did not fit him for prolonged

exercise” (Savile 160). Nevertheless, “poor little Lessaution” (Savile 91,93, 94, 138, 209) is a credentialed member of European institutions of knowledge, boasting impeccable references. In a cross-border translation of institutional endorsement, a kind of a passport of imperial epistemology, he is introduced by Professor Barstock, the head of the British Museum, as “Monsieur Lessaution of Paris, the well-known Egyptologist” (Savile 26-7). Lessaution is also a gentleman, boasting membership in the Cercle des Patineurs and of a shooting club, and thus capable of arousing transnational class loyalty. Though Lord Heatherslie is no admirer of Lessaution’s, when his servant Baines replies with restraint to Lessaution’s insults, Lord Heatherslie rebukes him harshly for “answer[ing] a gentleman back” (Savile 53-4).

In the novel, Lessaution’s discovery of a link between Egyptian hieroglyphs and Mayan glyphs allows him to use his background in the former to achieve breakthroughs in the latter. Bradley Deane observes that in the lost world fictions of the late nineteenth and early twentieth century, modern men are compared to “remnants of almost every people of antiquity and legend,” including Vikings, Egyptians, Phoenicians, Aztecs, and Atlanteans, all of which serve to prove the timeless and universal superiority of an essential imperial character (148). Savile’s alleged connection between the Mayan and Egyptian civilizations operates on the same assumption of the inherent interchangeability of pre-European civilizations, one that can be explained, beyond the common properties of glyphic writing systems and pyramidal monuments, by those former civilizations’ equivalent function in the imperial imagination.

The imagery of the novel itself indirectly supports this equivalency. The icebergs of the Antarctic are “white pyramid[s]” (Savile 124) and “great pyramids of sheeny white, coming along in stately columns and companies” (Savile 85), and the company’s final refuge, decided upon in advance, is a “mass of granite shaped something like a pyramid with a flattened top”

(Savile 252) and referred to thereafter as a pyramid (Savile 271, 308). Wayne Kime has identified De Mille's debts to Prescott's monumental 1844 *History of the Conquest of Mexico*, and Savile's preoccupation with pyramids indicates a similar familiarity with Prescott. Among other correspondences, Prescott suggests that malaria is "engendered, probably, by the decomposition of rank vegetable substances in a hot and humid soil" (4), while Baines tells Lord Heatherslie that his uncle probably contracted malaria from "the pure reek and stink of the places" (Savile 50). Though the shape and appearance of the "temples" and "ruins" of Chichitza are never described, and Lord Heatherslie only notices the "white civilized tents" of Lessaution's camp, the reader is invited to associate the fictional Chichitza with Chichen Itza and its pyramidal temples.

Professor Lessaution is further distinguished from the rest of the expedition in that he embodies and articulates with complete awareness the aims of the European imperial project. Unlike Sir John Dorinecourte, who dissimulates and hides his greed beneath altruism, Lessaution embraces the fundamental incoherency of imperial discourse, declaring with unusual honesty his double motivations of fame and wealth:

Let us even allow that the race is dead. But the remains of the wonderful people exist. We can go, we can dig, we can find the traces. And remember the gold. We go not for honor alone—though for me, I am French, and it is enough—but there will be the gold. Think of the very baling-vessels made of gold in the letter of the great Sir Dorinecourte. There will be wealth, and the fame—oh, the very great, magnificent fame (Savile 72).

Lessaution's interruption of his own passionate archaeological exhortation to instruct his British audience to "remember the gold" points to his own canny understanding of mutual French and

British imperial interests. It also suggests an uncanny knowledge of the individual interests of Gerry and Lord Heatherslie, who are separated from their beloveds by the exigencies of “a sordid, money-worshipping world” (Savile 110).

As the character most fluent in the language and conventions of empire, Lessaution naturally expresses the same precautionary hostility that Adam More does, packing an “armory of offensive and defensive weapons. Bowie-knives...revolvers...a rifle... a shotgun...a tomahawk” (Savile 82-3). He alone anticipates a formidable competitor in the evolutionary struggle and intends to leverage the full power of Europe’s military technology against such a possibility. Ridiculed by his British companions, he retorts:

Let the memory of the old conquistadores be in our hearts. By the magic of their perfected weapons they had prevailed upon the ancestors of this very people we went to seek, and from them we might learn a lesson. It was not to be expected that we should be greeted peacefully at first. A display of force—only a display, let us certainly hope—would be necessary (Savile 83).

Lessaution’s intentions are clear from the outset, however reticent Lord Heatherslie and his compatriots might be about their own. In his invocation of the conquistadores, Lessaution proves to be a perceptive reader of the inconsistencies and subtext of Sir John Dorinecourte’s letter. Moreover, he presents his interpretation with an exceptional directness and honesty that the others lack, for in spite of Sir John Dorinecourte’s explicit command to protect the Mayans from the conquistadors, neither Gerry nor Lord Heatherslie once protest Lessaution’s decision to approach *as* conquistadors. Later, when Lessaution equips himself with what he believes to be the “strictly correct habiliment of the explorer,” including axe, knife, shotgun, and revolver, he resembles “a medieval buccaneer” and a “pirate of cheap fiction” (Savile 162-3), ready to

appropriate wealth that does not lawfully belong to him. In the end, Lessaution's aggressive arsenal proves unusable when he forgets to acquire cartridges sized for his barrels. It does not matter, however, for the Mayans he plans to subdue with his arms are all long dead of starvation and cold.

Though the conquistador figures in Sir John Dorinecourte's letter and Lessaution's exhortation, he is curiously absent from Chichitza, whose ruins are not placed in context of the Spanish invasion, much less the early success of Mayan resistance. Europe is quietly absolved of any involvement in the abandonment of the Mayan buildings, now occupied by the apparatus of European knowledge production. In Conan Doyle's *The Lost World*, which will be examined in the next chapter, Professor Challenger supposes that the Indians discovered on an inaccessible plateau fled there "under the stress of famine or of conquest," with no mention of candidates for the possible conquerors (151). These absences of actors and agency in both novels stem from an identical impulse to exculpate the early European imperialists, who are erased from the landscape though not from discourse. By forgetting the occasions when conquistadors turned the sword upon fellow members of the same species, this erasure avoids implicating Europe in an act of Lyellian extermination, which is an embarrassment in the evolutionary narrative, inasmuch as genocide leaves both populations less fit for survival through a loss of knowledge, life, and resources. In *Beyond the Great South Wall*, time, and time alone, is depicted as the agent of both Chichitza's desolation and the racial deterioration of the descendents of the Maya, a force capable of destroying human civilizations but not the Brontosaurus.

Every white character in *A Strange Manuscript* appears to hold the uniform assumption that the present-day inhabitants of the Yucatán are a "dirty," "savage," and degenerate bunch as a result of racial mixing, far inferior to the "great race of Maya" that Lessaution extols, a race pure

in blood and removed from the effects of time (Savile 67). The lawyer tells Lord Heatherslie that the Mayans “are a wild and savage race, but there is every reason to believe that centuries ago theirs was a mighty empire” (Savile 24), and Lessaution adds, concerning their language, that “the Mayan of the present day...is but a bastard *patois* of the original, being corrupted with Indian” (Savile 65). Traveling from the fictional Greytown, with that color’s connotations of mixture and filthiness, to the “white civilized tents” of Chichitza, Lord Heatherslie is deeply disappointed when “instead of brilliant experiences of peril at the hands of the aborigines” (Savile 60), he encounters only “niggers and half-castes” (Savile 59). Whiteness is cleanliness and order, whether embodied by Lessaution’s tents or a ship’s crew: the Antarctic expedition enjoys the “favorable auspices” of an “all British” crew under Captain Waller of the Royal Navy Reserve, “the first whole-colored, single-tongued crew that Waller had ever commanded, as he feelingly remarked” (Savile 80). According to Anne McClintock, the Victorian discourse of degeneracy, informed by evolutionary theory, allowed for different groups, based on race, sex, and class, to regress from the pinnacle of human development that was represented by the middle-class Englishman (46-56). Degeneracy was contagious and could be brought about by sexual contact across races (McClintock 47), and that anxiety is apparent in Lessaution’s and Lord Heatherslie’s respective disappointments in a “bastard *patois*” and the “half-castes” of a gray town between black and white.

The other great filthy creature of the novel is what the explorers refer to as the “ghastly Thing” (Savile 188), “the Horror” (Savile 186, 208, 215, 246, 282), and “that living climax of horror, arrant in its filthy gruesomeness” (Savile 190), namely Cay. In their first encounter, Cay exerts a curious hypnotic power over the sailor called Parsons:

It gaped upon him. Parsons opened his jaws with measured, automatic motion, and gaped back. The sinuous neck swayed. Parsons stretched his throat with horrifying imitation. The thing advanced three ponderous steps. Parsons lurched forward a like space draggingly. The long serrated tail lashed to and fro once and again. Parson waggled his body monstrously (Savile 186).

Here we have the entire logic of the civilizing mission enacted in reverse by a living fossil reptile and the Englishman he dominates. Before being consumed and fully assimilated into Cay, Parsons imitates the dinosaur's motions, his body becoming just as "monstrous" in that performance. Though it is left unspoken, Parsons, an Englishman, is reduced in the exchange to something reptilian and revolting, less human than the "niggers and half-castes" that Lord Heatherslie, and Baines, and the rest all despise, and though Cay's influence over him is temporary, he remains, in the view of the others, a possible vector of contagion.

Rescued by Lord Heatherslie, Parsons erupts into wails: "'E'll 'ave me yet, 'e'll 'ave me yet. 'E'll nip me up an' break my back as if I was a bilge rat" (Savile 186). The language is so striking to Lord Heatherslie that he repeats it to himself later on (Savile 195). Given that Lord Heatherslie is narrating, it seems tempting to attribute this sudden attention to class-identifying dialect to an unspoken, anxious desire to segregate himself from Parsons' contagious degeneracy. Parsons has hitherto acted as a foil for Lord Heatherslie's hypocrisies. At one point, Lord Heatherslie calls Lessaution an "ungrateful little wretch" for not offering "thanks or a tug in return" when helped over a cliff, but after climbing the same cliff over Parsons' proffered back, Lord Heatherslie behaves like Lessaution and leaves Parsons behind (Savile 170). Then, after both Lord Heatherslie and Parsons flee the sight of a Mayan mummy in terror, Lord Heatherslie calls Parsons a "coward" twice and pronounces himself "disgusted with his [Parsons']

cowardice,” without any awareness of his own (Savile 179-80). Parsons, then, might be read as a silent index to elite British sanctimoniousness. His horrifyingly sympathetic response to the *Brontosaurus* thus operates as an indirect critique of the imperial project, recasting European territorial expansion and bureaucratic assimilation as a predatory hypnosis over the bodies of the Other and the metropolitan underclass that leads to their consumption and digestion into the beastly body of empire.

This inversion of the usual roles of predator and prey, assimilator and assimilated, is predicated on the *Brontosaurus* being indigestible by the usual operations of empire. Cay proves to be a “bullet-resisting abomination” (Savile 195), abominable in part because of his imperviousness to the ordinary weaponry of modern Europe. The idea of a bulletproof predator verges on the unthinkable for those who depend on bullets to assert their geopolitical dominance, and the party goes to great lengths to avoid thinking it. Garlicke, Denvarre, and Lessaution are proud sportsmen, and with Lord Heatherslie, they comfort themselves by discussing, repeatedly and at length, the inevitable triumph of their firearms over the dinosaur (Savile 196, 263-4). This overconfidence leads to the inflexible repetition of useless tactics and the inability to adapt to different circumstances: even after multiple demonstrations of the futility of firearms, Garlicke mechanically continues to shoot at the dinosaur (Savile 287, 294, 301, 307). Geological catastrophes in the land itself, independent of any human agency, finally destroy the last dinosaur. Cay slips into a fissure opened by an earthquake and is pinned there while lava from an erupting volcano flows over him. This extraordinary combination of disasters openly stages the veiled partition between geologic epochs in the geological retrospect, where the reader’s imagination is permitted to borrow cataclysms from the theory of catastrophism to reset the earth between repopulations by different species, even as it defies what Buckland identifies as the

retrospect's conservative affirmation of social stratification by thrusting both dinosaur and humans violently from one epoch to the next, forcing the explorers to face extinction and adapt. The various freak accidents that carry the explorers onto the plateau, destroy the Brontosaurus, and release them onto the open ocean again level the social barriers somewhat, enough for Lady Delahay to consent to the match of Gerry and her daughter.

At the moment of Cay's death, the company experiences a peculiar moment of identification with the alien creature that silences them briefly: "Our faces were averted, and nausea had us by the throat. As the great Beast had died, so might we come to die, and that right soon. The realization of the matter was more than we could see and not blench. For some half-minute no one spoke" (Savile 310-1). There is no euphoria or sense of triumph in the scene, in part because they are still endangered by the volcano, but also in part because Cay has escaped the telos assigned to him by the imperial narrative. He has not been bombarded into modernity and thereafter incorporated into a global economy, as the Mayans would have been; nor has he been exhibited, dissected, or analyzed. Earlier, Lord Heatherslie predicts that Lessaution will "enjoy cutting him up dead quite as much as admiring him from a distance living" (205). With Cay's death and incineration, reduced to "a gout of steaming gas" (Savile 310), there is not the slightest specimen to be recovered as a scientific trophy or displayed in a museum for public edification. Nothing of Cay is left to be commodified or consumed.

The only remnant of Cay that survives the novel is his taxonomic identification, inserted in the only footnote in the novel:

Lord Heatherslie makes a mistake here. Professor Lessaution's subsequent researches proved "the god Cay" to be without doubt *Brontosaurus excelsus*,

remains of which have been found in the Jurassic formation of Colorado. It was purely a land animal. — F.S. (216n1)

Though Lord Heatherslie makes dozens of mistakes, this minor assumption, his fancy that Cay can swim, is the only one considered worthy of correction by “F.S.” The correction is of no importance to the events of the story, but it establishes a triple layer of authoritative interpretation contributing to the novel’s effect of verisimilitude: Lord Heatherslie’s direct account is flawed and uninformed, Professor Lessaution can correct errors in “subsequent researches” in a temporally unbounded epilogue, and this injection of additional information is stamped with textual authority by “F.S.” himself, who has shifted from the frontispiece’s “FRANK SAVILE, Author of ‘The Blessing of Esau,’ ‘John Ship, Mariner,’ Etc.” into the position of editor of the text. It should be noted that Lessaution has no stated background in either geology or paleontology, and originally suggests the mastodon as a candidate for the Mayan depiction of “a huge lizard, with a long, sinuous neck” (Savile 257, 57), but the novel allows no questioning the taxonomic label: Lessaution’s identification of the *Brontosaurus excelsus* is “without doubt.” The illusion produced by this footnote is that of the perfectible novel, which can be improved by additional research and correction, and whose text remains somewhat fluid in an afterlife of editorial changes. It illustrates in compact fashion the machinery of knowledge production, accreditation, and authority in imperial scholarship, and also the cracks in that system: on the one hand, the lack of finality of any text, which acquires layers of corrections and commentary over time; and on the other, the potential for propagation of an authoritative error. In this system, the margin of error is enormous: the French professor can mistake a *Brontosaurus* for a mastodon.

The victory of these would-be conquistadors is an unearned, unjustified, and uneasy one. They have both found and not found what they expected: not the “peoples of yesterday” (Savile 71), imagined as impossibly static and unchanged since the sixteenth century, and therefore easily subdued, but a monster that has survived unchanged through millions of years; not an “unconquered remnant of a conquered race” (34), but a remnant that conquers. Though the ship leaves the Antarctic island stuffed with Mayan gold, their victory remains a pure geological accident, and without the extreme intervention of earthquake and volcano, the only forces sufficient to destroy that monstrous excess of life, they themselves would have been consumed. Nevertheless, the abiding result of the terrifying encounter is a softening of national and class prejudices that leads to Lessaution and Lord Heatherslie’s fictional collaboration on the novel itself and also Garry’s betrothal to Vi despite their different social ranks. In other words, the dinosaur and the threat of extinction illustrated by the dead Mayans inspires in the expedition a commitment to a reproductive and productive futurity, an outcome not dissimilar to that in Adam More’s narrative.

In both these novels, one Canadian, one British, the placement of dinosaurs in the atopia of the Antarctic, beyond the reach of European control and knowledge, virtually indestructible and waiting to devour the explorer too confident in his own rifle, appears to give expression to the specter of imperial decline. Doyle’s *The Lost World* stages a similar confrontation, and in addition attributes the original discovery of its dinosaur-rich plateau to a deceased American, the artist Maple White, from Detroit, for whom the plateau will be named. Meanwhile, Verne’s dinosaurs are too massive and too powerful to notice the humans they imperil, much less to hunt and eat them. An interesting contrast to the European and Commonwealth depictions of indestructible monsters can be found in the American novel *A Journey to Other Worlds*, by John

Jacob Astor IV, in which the protagonists travel to the atopia of outer space. Set in 2000 AD, after long wars have subdued and exhausted the formerly powerful European empires, the unusual placidity of Astor's novel likely reflects some combination of the brash confidence of the United States in the geopolitical arena, American supremacy in paleontology, and perhaps also the powerful position of the author himself, the richest man in America: his American astronauts face no danger, feel no real fear, encounter only herbivorous dinosaurs on Saturn, who have soft and vulnerable scales, and emerge from those encounters not only unharmed and unafraid, but eating a Stegosaurus heart and "a dozen thick slices of tenderloin steak" cut from a Triceratops (199-206). It would seem plausible, then, that the relative strengths of rising and declining empires were mapped onto the figure of the fictional modern dinosaur, which depending upon its diet and position in the food chain could represent either an existential threat to humanity or game for shooting. Astor's picture of American dominance in the solar system, across geologic epochs, heaven, purgatory, and hell, conveniently excludes carnivorous dinosaurs altogether, as if the threat implicit in their existence could not be safely contained by any of the speculative technologies at his explorers' disposal.

Where it does appear, indigestible and insatiable, occupying Antarctic atopias uninhabitable by weaker species, the carnivorous dinosaur's threat to devour the formerly ascendant European imperialist, and by extension all the lower ranks of humanity, engages the reader and protagonist in imagining a subversive reproductive futurity. While fear of the cannibal, vulnerable to bullets and conformable to European mores, reinforces the racial prejudices and hegemonic logic of empire, his dark body presupposes a superior strength in the nearest colonial settlement or military outpost, however unavailable to the imperiled white individual, and like the Kosekin, he usually falls to the rifle or the pistol. At the very beginning

of his narrative, Adam More's declaration of white supremacy in combination with a quick recourse to his gun saves him from the cannibal threat, and eventually he becomes their highest judge and ruler. In the face of the existential threats of obsolescence, out-competition, and extinction represented by the armored and devouring monster of prehistory, however, the fine interspecies distinctions of race, nation, and class become subordinate to the survival of the species as a whole. Gerry is betrothed to Vi; Adam More marries Layelah. There is no certainty past these novels' conventional marriage-plot conclusions, not while dinosaurs still menace the Kosekin, or while the rest of Savile's Antarctic ocean remains unexplored. The form of the dinosaur novel seems particularly productive of uncertainty, revision, correction and re-correction, in contrast to the usual quick and confident commercialization of space, time, and knowledge in lost-race and adventure fiction, as it has imagined the unimaginable limits of empire and one possible future for humanity within those limits.

CHAPTER THREE

TRAINS, PLANES, AND MASCULINE ALLIANCES IN AN AGE OF DINOSAURS:

THE LOST WORLD AND JOURNEY TO THE CENTRE OF THE EARTH

In Verne's *Voyage au centre de la terre* (1864) and Arthur Conan Doyle's *The Lost World* (1912), in contrast to Savile's and De Mille's novels, the modern European encounter with dinosaurs is envisioned as exclusively male. In removing the possibility of sexual reproduction, this constraint encourages the formation of interracial and international homosocial alliances, with men of all races and nationalities combining their knowledge and technology to master prehistoric terrors. Here the monsters of prehistory reflect the monstrous development of the industrial future in their incredible speed, power, and appetites. They pursue and consume indiscriminately, without concern for the welfare of the weaker humans they toss around, much like the trains then advancing across the French and British countryside and exposing dinosaur bones in their construction, with their traumatizing crashes and bottomless hunger for the fossil fuel of coal, or the newly invented airplane with its threat of death from the skies. This alternative articulation of futurity in the face of extinction, acknowledging the possible limitations of European firepower and advantages of indigenous technologies and techniques, projects a new ideal masculinity striving for mastery over the environment and the landscape-transforming machines of the new world order.

The Plesiosaurus and Ichthyosaurus battling in Verne's *Voyage* exert deadly forces comparable to that of steam power: "These reptiles advance upon us; then move round the raft with a speed that could not be equaled by trains flying at top speed" (158). Conan Doyle echoes the comparison when Edward Malone examines the Stegosaurus drawing and exclaims, "Why,

Charing Cross station would hardly make a kennel for such a brute!” (Conan Doyle 30). As Ross G. Forman observes of Malone’s protestation, the train is as much a monster of industrial modernity as the dinosaur is the monster of prehistory (52-3). Later, in their first encounter with the carnivorous dinosaur that is either Allosaurus or Megalosaurus, Malone hears its “hissing pant, as regular and full-volumed as the exhaust of an engine” (Conan Doyle 110). Ian Duncan, in his introduction to the Oxford edition of *The Lost World*, notes that that the pterodactyls fly “with a swish like an aeroplane” and live in a rookery that sounds like “Hendon aerodrome upon a race-day” and suggests that the dinosaurs are Conan Doyle’s representations of modern technology, embodying the author’s fear of a rapidly advancing future (xx). Railroads were spreading rapidly across Europe during the period in which these novels were written: the Act of June 11, 1842 authorized the construction of over 2,200 miles of railroad tracks in France (Dunham 24), while 1,700 miles of track were authorized in Britain between the boom year of 1836 and 1843, with an additional 1,970 miles sanctioned between 1844 and 1914 (Lewin 21-63).

Nor was the relationship between railways and fossil reptiles limited to the symbolic. As Michael Freeman writes in “Tracks to a New World,” railway excavations exposed previously unseen rock strata and fossils, and geologists and railway engineers alike took note. In 1846 Gideon Mantell visited Lewis Railway sections and acquired a large quantity of fossils from the laborers there, while in 1850 his son, R.N. Mantell, an engineer on the branch between Chippenham and Westbury, published a paper in *The Quarterly Journal of the Geological Society* on strata exposed by railway work at Trowbridge (Freeman 61-2). Richard Owen uncovered a Cetiosaurus in the Blisworth limestone works on the London to Birmingham line, while the engineer F.W. Simms dug up an Iguanodon during construction of the Bletchingley

tunnel (Freeman 59, 61). William Buckland, famous for his unorthodox teaching methods, lectured on the train between Oxford and Bristol on the geological formations visible along the route (Freeman 64). Progress in geology, in short, was accelerated by the development of railway networks, and trains themselves could bring about the discovery of dinosaurs. Along with their entanglement in geological research, the unprecedented vastness, speed, and force of trains would have suggested a natural parallel to the figure of the dinosaur.

Just as the railroads were surveyed, dug, built, and operated by men, in these two novels the explorations of the prehistoric are conducted by men, with women apparently excluded on the basis of ideas of biological determinism and female weakness. Although Savile's Gwen pronounces the discovery of Cay "delightfully exciting," Conan Doyle's Englishwomen are too delicate to view a live pterodactyl without "f[alling] senseless from their chairs" (184), and Verne's Graüben, despite being an accomplished mineralogist in her own right, sends Axel off with the assertion that "a poor girl would only be in the way" (34). In *Voyage* and *The Lost World*, the primary role of European women is to instigate their suitors' confrontations with prehistoric monsters by demanding the expeditions as prerequisites for marriage, though with vastly different results.

Conan Doyle's Gladys Hungerton wishes for a "famous man," citing Richard Francis Burton and Sir Henry Morton Stanley as models for the husband she desires. Although Malone asserts the reproductive drive from the start, pleading, "It's nature. It's love! ... You were made for love! You must love!" (5), Gladys' drive is not physical but colonial. Romance and sexual desire are here sublimated into imperial acquisitiveness and geopolitical objectives. Gladys assumes the symbolic position of Britannia, requiring from Malone the reproduction not of children but of colonial subjects and wealth, and he declares himself willing: "Look at [Lord]

Clive—just a clerk, and he conquered India!” (6-7) This symbolic betrothal of Malone to Britain does not ultimately serve the species, however, or even the empire: Malone returns with neither new subjects nor new wealth, as far as he knows, and obfuscates the knowledge he does acquire to keep the map blank and the prehistoric plateau undefiled a little longer. As might be expected, the anticipated union proves unviable, for Gladys, in a move suggestive of reduced imperial ambitions, marries an ordinary clerk who is not about to conquer India; the “hunger” in her maiden name is satisfied by humble “Potts.”

In *Beyond the Great South Wall* and *A Strange Manuscript*, where marriage is not between imperialist and empire but between two ordinary people, encounters with dinosaurs put irresistible pressure on male and female protagonists to wed and presumably reproduce with the people they are most strongly attracted to, in spite of distinctions of race and class, thus resisting on an individual level the possible future extinction of the species that the appearance of the modern dinosaur implies. Lady Delahay’s desire to marry off her daughters to the men with the most money and social capital is overcome only when a carnivorous Brontosaurus traps Lord Heatherslie and Gwen in a cave, where, on the brink of death, they are able to have an honest conversation. With good reason, Lord Heatherslie can aver, “I take it that never have man and maid plighted troth in stranger circumstance” (Savile 303). When they escape to safety, the two of them successfully negotiate the more difficult betrothal of Violet Delahay to Gerry, a common soldier. This same compelling strangeness in marriage, suggestive of Edenic newness and innocence, attends Adam More’s “ceremony of separation” from Almah, which he does not learn until the end of the novel is the Kosekin equivalent of a marriage ceremony: “It was a strange feeling, and I think I am the only man since Adam that ever was married without knowing it” (De Mille 269). In these novels, there is a sense of return to a more natural and evolutionarily

advantageous conception of marriage, without the financial baggage and fine-grained social distinctions and prejudices of modern European society, as if an encounter with antediluvian monsters suffices to inspire a return to antediluvian sexual relations.

At the same time, the unconventional unions in these novels stop short of revolution. *Mésalliance* is only countenanced as a temporary condition, in the case of Gerry and Vi, while Lord Heatherslie acquires the title and fortune needed to court Gwen as soon as his uncle dies. Adam More does not marry a “black” Kosekin but a foreigner “of quite a different race from the others” (De Mille 73), who is taller and fairer than the Kosekin, wide-eyed where they squint, and accustomed to sunlight and selfishness. Though the latter marriage is explicitly interracial, both characters appear to be Caucasian in phenotype, and More is moreover cut off permanently from European society, without hope of a disruptive return. All of these circumstances attenuate the transgressive aspects of their unions. Societal expectations in dinosaur fiction, then, at least around marriage, are met and conciliated as much as they are challenged and resisted, limiting the radical potential of an otherwise subversive deployment of the subtle threat of human extinction.

Whereas the heroines of Savile’s and De Mille’s novels traverse oceanic space independently of their suitors, Verne’s Graüben and Conan Doyle’s Gladys conform to the more conventional pattern of mobility that Franco Moretti observes in early nineteenth-century novels of manners by Jane Austen, Amelie Opie, and Maria Edgeworth, where geographic stasis indexes constancy and fidelity (*Atlas* 20-2). Not having traveled to the edges of empire, not having struggled with antediluvian monsters, Graüben and Gladys remain unchanged in psychological and emotional state throughout their novels, except for a nominal change in marital status. Michel Foucault describes Verne’s heroes as similarly static, undergoing no

internal psychological transformations other than knowledge acquisition (4-5), but in *Voyage* both Axel and Professor Lidenbrock undergo significant transformations in their social and emotional states with the conclusion of their voyage and the consummation of Axel's marriage, from dissatisfaction and anxiety to happiness: "My uncle was the happiest of scientists. I was the happiest of men, for my pretty Virland girl, giving up her position as ward, took on responsibilities in the house in Königstrasse as both wife and niece" (Verne 217). For all that dinosaur novels resemble adventure fiction, ultimately their protagonists are driven across oceans and continents, even planets, by the desire to prove themselves worthy of marriage, and as Moretti writes of the realist novels of the same period, they accept the social contract of marriage that exchanges mobility and risk for promised happiness (*Way of the World* 24).

In this, the successful or failed attempt to return and conclude a marriage, dinosaur novels depart somewhat from the trends in Bradley Deane's study of British masculinity in the period of 1870-1914. Deane traces how the ideal Englishman of the 1860s, imagined as a mature, earnest, and moral patriarch, gradually transformed into a boyish soldier rejecting hearth, home, and the shackles of domesticity for faraway colonial playgrounds (4-6). The move is illustrated by the ambiguous dedications of novels such as H. Rider Haggard's *King Solomon's Mines*, "To All the Big and Little Boys Who Read It," and Conan Doyle's *The Lost World*, "To the boy who's half a man / Or the man who's half a boy" (Deane 85). While a conceptual model of British masculinity may not be directly applicable to Verne's *Voyage*, a French novel with German characters, both *Voyage* and *The Lost World* are congruent with Deane's proposed movement of young men from female households into an international sphere of masculine homosociality. In the case of *Voyage*, knowledge is passed down through a purely male lineage: Professor Lidenbrock discovers a cryptogram written by the sixteenth-century Icelandic scholar Arne

Saknussemm giving directions to the center of the earth, conscripts his nephew Axel, hires the guide Hans, and sets off in Saknussemm's footsteps, aided along the way by various male ship's captains and Icelandic hosts. The British nucleus of *The Lost World's* male expedition forms suddenly in a riotous lecture at the Zoological Institute, when Malone, Lord John Roxton, and Professor Summerlee agree to travel to South America to verify Professor Challenger's claim of living dinosaurs. At Para, the explorers hire "a gigantic Negro," two half-breeds, and "three Mojo Indians from Bolivia," whose essential characters, it will become clear, are determined by their race (Conan Doyle 59). The expedition's members, hosts, subjects of conversation, and even the cadavers they discover are all male; not a single woman appears between Para and Manaos or Manaos and the plateau, unless one counts the steamboat *Esmeralda*, whose sole narrative function, like Graüben's or Gladys', is to advance the men in their journey.

Departing from the standard narrative of discovery, neither expedition is entering virgin territory; both follow the footsteps and accounts of earlier travelers emphatically lacking in the proper spirit and profit motive of an imperialist, one being the scholar Arne Saknussemm, the other the American artist Maple White. Conan Doyle's expedition treads doubly-trodden ground, for its stated objective is to confirm Professor Challenger's prior confirmation of Maple White's sketched observations. Deviating from McClintock's conception of a lush, feminine pornotropics waiting to be unveiled and penetrated by the intrepid white explorer, Conan Doyle's South American landscape repeatedly penetrates the explorers, or tries to: the skeleton of James Colver is found impaled upon bamboo, poisonous Jaracaca snakes spring toward them, ready to bite, and the Indian José quits the party when his arm is accidentally "pierced by a broken bamboo" (75). When the party tries to clamber upwards through a cave, they find it blocked by rubble from an earthquake, and eventually they discover that their sole means of ascent is to climb a

phallic pinnacle of rock rising alongside it. Later, when the white explorers combine forces with the Indians on the plateau, they exterminate the race of ape-men by driving all the males onto the sharp bamboo growing below, just as the ape-men used to fling their victims down. This genocidal act, escalating the execution of individual prisoners to the murder of an entire species, suggests a critique of male homosexual desire as being lethal to the species from an evolutionary perspective. At the same time, the rank wilderness is figured as an equal and masculine partner in the extinction of the ape-men, for it is penetration by the bamboos, rather than the fall itself, that kills them.

Women reappear in Doyle's narrative upon the plateau, among the savage race of ape-men and the noble race of Indians, but they are represented as neither sexual nor attractive. As if anticipating the diminished importance of femininity in Malone's life, Malone describes the Indian women as "grotesque," and Professor Challenger carries a palm branch to "beat them off as if they were flies, when their attentions become too pressing" (Conan Doyle 278). When offered Indian women in marriage, the explorers one and all immediately refuse, without justification or consideration, bachelor and husband alike. Meanwhile, the ape-women remain invisible and unmentioned until their enslavement by the Indians, and appear to exist solely to mark the victory of the white-Indian alliance. Though in the map accompanying the novel, that plateau named Maple White Land appears feminine in form, with a vast lake at the center that Malone at first names Lake Gladys, it is later rendered neuter. When Malone returns to London in triumph, he finds Gladys married, and in his bitter disillusionment with the feminine, strips the lake of its female name and replaces it with "Central Lake." In addition, he accepts Lord John Roxton's proposal to return to the plateau for further adventures. As Deane notes, the last sentence of the novel is racially ambiguous: Lord John Roxton's "brown hand," stretching across

the table to Malone, recalls the noble Indian men of the plateau and the possibility of an interracial ideal masculinity (157). Although Malone marries Challenger's daughter in the third novel of the Professor Challenger trilogy, in this moment he has tried and found wanting the conventional union with the respectable white British woman, symbol of racial purity and social norms, preferring instead the noble masculinity of the Indians and the faithful companionship of men of various races.

Lord John Roxton, he of the "brown hand," is an ambivalent participant in the imperial cult of whiteness. On the one hand, his room in the Albany at Picadilly is furnished with symbols of "the old Oxonian and Leander man" and a rhinoceros-head trophy from the Belgian Congo, and he quotes Kipling's "The Long Trail"⁷ and the Australian imperialist poet Adam Lindsay Gordon's "Lex Talionis," painting a portrait of the perfect imperial soldier. After ribbing Malone on his merely "average Territorial standard" level of shooting, Roxton displays and lectures on the accoutrements of the properly armed imperialist: the "Bland's .577 axite express" that killed the white rhinoceros, then the ".470, telescopic sight, double ejector" rifle notched for each Peruvian slave-driver shot in "a little war of my own. Declared it myself, waged it myself, ended it myself" (Conan Doyle 52). These two guns, with a history of pushing at least one species, the "rare white rhino of the Lado Enclave," closer to extinction for the sake of a trophy, and of prosecuting a "little" race war on behalf of the South American natives and against the "notorious" and "villainous halfbreeds" (Conan Doyle 79, 58), seem almost predestined to a repetition of those events on the South American plateau, where they are used once more in capturing hunting trophies and waging a genocidal war. On the other hand, Roxton spends much of his time outside of Europe, is visibly brown-skinned, enjoys the title of "Red Chief" among

⁷ In Ian Duncan's notes to *The Lost World*, first published in 1995 before the benefit of searchable text, Duncan makes a reasonable but erroneous conjecture about the source of the Kipling quotation, which remains uncorrected as of the 2008 edition.

the Brazilian and Peruvian Indians, and proudly declares that he has “had all the white paint knocked off me a long time ago” (Conan Doyle 49-86).

In spite of his distance and apparent independence from the metropolis and its social conventions, Roxton believes and promulgates strict racial demarcations of good, evil, and worthiness. His standards are depicted in the novel as universal, in that they are implicitly understood by nonwhite characters as well as white ones. The hired “Negro Zambo... is as faithful as a dog and has the hatred which all his race bear to the half-breeds” (Conan Doyle 65), and the Indians of the plateau cling to Roxton’s legs in supplication. When the halfbreeds, one of whom lost a brother to Roxton’s race war, betray the white explorers by stranding them on the plateau, the morality play of Roxton’s little war is reenacted. Roxton shoots one and Zambo kills the other, and then the hired Indian porters are sent to fetch assistance, which they faithfully do. Blood will out in Doyle’s novel, it appears, and one’s blood is one’s race.

Like the vilified métis, the ape men also occupy a interstitial position suggestive of miscegenation. They are reviled as “filthy beasts” whose touch makes Roxton “feel as if I should never be clean again” (Conan Doyle 139). The ape men threaten the Victorian middle-class ideals of hygiene established in the 1890s (McClintock 209-11), and Roxton talks about killing the ape men as a way to “leave this country a bit cleaner than we found it” (Conan Doyle 153). Nevertheless, though they are “filthy” and contaminating, the ape men are suspiciously “whitish,” and when one lifts Malone by the neck, bringing them face to face, Malone confronts “cold inexorable light blue eyes... There was something hypnotic in those terrible eyes” (Conan Doyle 117, 152). The threat of European racial degeneracy and contagion implicit in the whitish skin and blue eyes is stated outright in the comparison of Professor Challenger to one of the ape men:

A single day seemed to have changed [Challenger] from the highest product of modern civilization to the most desperate savage in South America. Beside him stood his master, the king of the ape men... Only above the eyebrows, where the sloping forehead and low, curved skull of the ape-man were in sharp contrast to the broad brow and magnificent cranium of the European, could one see any difference. At every other point the king was an absurd parody of the Professor” (Conan Doyle 144).

In terms of physical form, very little distinguishes the exemplar of white civilization from the “missing link” that the expedition does not consider to be human. As if in reaction to this observation of a terrifying propinquity between the intermediate race of “filthiness” and the learned and credentialed “highest product of modern civilization,” Malone and Roxton immediately slaughter these “absurd parodies” of themselves, beginning with Challenger’s double and not stopping until every male adult is killed and the population destined to extinction.

The violent effort to cleanse themselves from the degenerate filthiness of the ape-men has a paradoxical effect, however. In this symbolic battle against racial contagion, the avowedly “tender-hearted” Malone discovers “strange red depths in the soul” and immerses himself in “blood lust” and the “joy of slaughter” (Conan Doyle 145). Here is exposed the illogic of imperial protocol: to civilize, the imperialist must become savage. Like Challenger, Malone descends in a moment to desperate savagery when confronted with the polluting vision of degenerate whiteness. Even the eradication of the mockingly Caucasian ape-men is not enough to erase the threat of savage degeneracy latent in the civilized white European, however: in the expedition’s presentation of their findings to the Zoological Institute, Professor Challenger compares the jeers and disorder of the audience to the noises of the ape-men. Although those

whom the novel's scientists consider subhuman are found on the peripheries of empire, they point home to the degeneracy at the heart of empire.

In contrast to the halfbreeds and ape-men, the Indians of the plateau are described as "clean-limbed" and hygienic, if not modernized (Conan Doyle 143). On the basis of their "cranial capacity," "facial angle," and other physical features, Professor Challenger places them "considerably higher in the scale than many South American tribes" (Conan Doyle 150). He theorizes that, just as evolutionary processes on the plateau have maintained its Jurassic dinosaurs while developing the more recent species of tapir, great deer, and anteaters, the ape-men represent an older, prehistoric South American type preserved without change on the plateau after their arrival, while the Indians represent "more recent immigrants from below" (Conan Doyle 150-1). As later "intruders," the Indians' encounter with the ape-men is in a sense analogous to the European encounter with indigenous populations, and Challenger's proposed chronology produces an automatic sympathy in the British expedition, itself recently arrived from below, with the Indians. Meanwhile, Challenger's scientific classification of the ape-men as vestiges of the past and evolutionary dead ends, for whom extinction is an appropriate fate, prepare the party and the reader for their extermination.

British sympathy for the plateau Indians, though it allies the men in warfare, finds its limit in interracial reproduction. Not a single member of the expedition considers the Indians to be high enough in the European racial hierarchy for them to seriously consider the offer of "a little red skinned wife and a cave of our own" (Conan Doyle 166). Besides being a radical act in the eyes of the society that the explorers have only left temporarily, that marriage would produce nothing but métis, who in the scheme of the novel are figured as purely evil. The Indians are enlightening specimens for Challenger's anthropological lectures, beautiful and noble objects for

the white gaze, and deserving recipients of military support, but their position remains subordinate and separate. When the entire tribe prostrates itself before the white men, Challenger describes the act as “correct” behavior “in the presence of their superiors” (Conan Doyle 155).

The circumstance that levels these racial hierarchies and brings together the white men and the Indians as equals, a circumstance so extenuating that it may even unite the white men, Indians, and abominated ape-men, is the presence of dinosaurs and the threat they pose to humanity. When Malone tumbles into a staked pit that saves him from a pursuing carnivorous dinosaur, he concludes from the existence of the “trap—made by the hand of man” that “Man was always the master” (Conan Doyle 131). In the same vein as the other novels of this study, Malone’s automatic response to a prehistoric threat to his existence is to set aside the distinctions of race and ally himself with the inhabitants of the plateau. His declaration of an interracial confederation of “man” is particularly notable in that it precedes the party’s detection of the Indians but succeeds their discovery of the ape-men, who are the only local candidates for Malone’s inclusive idea of “man.” This moment unsettles the novel’s otherwise rigid racial hierarchy.

Malone’s fall from a scene of primeval terror down into the pit, and thus into “the hand of man” and a demonstration of man’s mastery of nature, is a vertical displacement operating much like the elevation of the Indian caves, whose height allows the explorers and Indians to escape from the carnivorous dinosaurs on other occasions, as well as the cliffs of “at least a thousand feet” (Conan Doyle 77) that preserve the prehistoric ecosystem of the plateau from the encroachments of the modern world. This mapping of time onto vertical, often perpendicular distances represents an imaginative extrapolation of William Smith’s principles of stratigraphy common in dinosaur fiction. In Verne’s underground journey, for example, to pass from upper to

lower layers is to descend “the ladder of time,” and progress in the vertical direction is only achieved with patience, difficulty, and suffering (Verne 180). Savile’s party is separated from the Antarctic continent and its prehistoric denizen by “sheer, ledgeless, and ice-smooth” cliffs “a hundred feet at least,” (87, 155). Meanwhile, Adam More speeds along an underground stream, continually fearing “a plunge deep down into some unutterable abyss,” before he falls asleep, dreams of “thunderous cataracts falling from inconceivable heights,” and wakes up in what “seemed like a watery declivity reaching for a thousand miles,” which Doctor Congreve glosses as “a depression at either pole upward of thirteen miles” (De Mille 43-50, 68), where he finds dinosaurs. Stratigraphy’s mapping of millions of years onto vertical layers of earth becomes, in these novels, the mapping of millions of years of time onto sheer vertical separation, whether downwards into the earth or upwards into the air, and the traversal of vertical distances substitutes for actual time travel. In this way human explorers can cross geologic eras—in space rather than time—to confront the monsters of prehistory.

If depth is mapped to time in *Voyage*, “centeredness” seems mapped to Europe. On their journey toward the presumed center of the Earth, Axel, Professor Lidenbrock, and Hans travel southeast from Iceland, passing underneath Britain, Germany, then Italy, where they can go no farther and emerge. This subterranean path retraces not only Saknussem’s footsteps but also the usual narrative of Western civilization originating in Greece and Rome and spreading westward through Europe. *Voyage au centre de la terre* is the title both of Verne’s novel and the nested account that Axel reports in the last pages of Verne’s novel as having been “translated and published in every language...reviewed, discussed, attacked, and defended” (Verne 216): *au centre*, rather than *vers la centre* or *en la terre* or *Voyage souterrain*. While the expedition does not reach the precise physical center of the world, both Axel and Verne claim in the title of their

doubled narrative to reach *some* kind of center. On their journey from the westernmost edge of Europe toward Rome, the explorers discourse in Latin in Iceland, arrange their schedule around the calends, quote and are quoted Virgil (Verne 92, 186), and observe rock formations like the “counter-naves of a Gothic cathedral” or “arches in the Roman style” (95), before discovering, in a culminating moment in the 1867 textual insertion, the body of Quaternary European man, then a “giant shepherd from before the Flood” (180-7). These events suggest that the geologists are engaged in an excavation of the classical narrative of European development that confirms its validity even as it shifts the cultural and scientific center of modern Europe farther to the northwest.

Like surface Europe, subterranean Europe appears secure and stable, free from threats of savagery and wildness:

Those travelers who penetrate to the middle of the deserts of Africa or the heart of the forests of the New World are forced to watch over each other during the hours of sleep. But here, absolute solitude and complete safety. Savages or wild beasts: none of these harmful races were to be feared (Verne 96).

In this curiously deep geography, threats exist only on the periphery, in colonies and on other continents. Although the darkness underground is permanent rather than temporary, the dark threats of “harmful races” associated with the night remain on the horizontal rather than vertical edges of empire. The influence of European civilization is depicted here as extending downward into the crust of the earth, just as the French inventions of the Montgolfier balloon in 1783 and the Giffard dirigible in 1852 extended its reach into airspace. Dangerous creatures reappear in the account only when the expedition crosses a subterranean sea, which like its counterparts aboveground represents a fluid, unclaimable zone over which no country has sovereignty.

In spite of the absence of “savages” and “wild beasts,” the explorers are heavily armed, with Professor Lidenbrock in particular being “very attached to his arsenal” (58), which includes “two rifles from Purdley More & Co. and two Colt revolvers,” “powder for hunting,” and guncotton (Verne 58-9). Though the guns are never fired in violence, and none of the members of the expedition have any experience with violence, Professor Lidenbrock, like Professor Lessaution, appears to be conforming to the rules of adventure fiction and the image of the well-armed adventurer. Facing an Ichthyosaurus and a Plesiosaurus, Axel seizes his rifle, even as he recognizes the futility of the conventional gesture: “What effect could a bullet have on the scales covering the bodies of these animals?” (Verne 158). The other two men presumably arm themselves as well, for the next mention of their weapons is plural: “We remain motionless, ready to fire” (Verne 159). But they never do. The might of the American Colt revolver, demonstrated in the Mexican-American War, and the Purdley More rifles, reminiscent of the famous British gunmaker Purdey & Sons, are insignificant beside the size, strength, and speed of these dinosaurs. The humans are so small that the dinosaurs never notice them, “their fury prevent[ing] them from seeing us” (Verne 158), even as their raft is tossed up and down by the melee. The “powder for hunting” that Professor Lidenbrock packs is revealed to be laughable in its outsized ambition, as there is no possibility of hunting these creatures, much less eating them.

Conan Doyle’s party also bristles with firearms, in the time-honored imperialist tradition, packing “four rifles and one thousand three hundred rounds, also a shotgun, but not more than a hundred and fifty medium-pellet cartridges” (164), an armory that anticipates a war. In Conan Doyle, as in Savile and Verne, “the last word of the gunsmith’s art from St. James’ Street and the Strand” (158) proves impotent against the dinosaurs, in contrast to the Indians’ primitive but effective methods:

We emptied our magazines, firing bullet after bullet into the beasts, but with no more effect than if we were pelting them with pellets of paper... But where the conical explosive bullets of the twentieth century were of no avail the poisoned arrows of the natives, dipped in the juice of strophanthus and steeped afterwards in decayed carrion, could succeed (Conan Doyle 163).

For all Lord John Roxton's experience with war, trophy hunting, and vigilantism, for all his connoisseurship of guns, his weapons are fine-tuned for the work of empire, while the dinosaur stands outside of the imperial order, dominating and indomitable. The "pellets of paper" of bureaucratic power, as lethal as bullets in subjugating and disciplining the bodies and imaginations of other humans, fall harmlessly from the dinosaurs' indifferent scales. Only the poorly armed Indians, who have developed in uneasy coexistence with the dinosaurs, possess the knowledge and means of killing them: their poisoned arrows attack the Allosaurus or Megalosaurus in a delayed manner matching the dinosaurs' slower nervous systems, while their nets and spears allow Challenger to acquire an Ichthyosaurus.

The failure of European firearms in the four novels considered in this study configure the threat of the fictional dinosaur in subtly different ways: De Mille's dinosaurs depict the essential inadequacy and boundedness of the triumphant imperialist; Savile's bulletproof Brontosaurus reverses the usual direction of imperial violence and control; Verne's dinosaurs emphasize the insignificance of European empires and weaponry on geological timescales; and Conan Doyle's suggest a dreaded enervation of modern civilization, dependent on machines rather than muscular strength for survival, and unfit to compete with prehistoric nature. In the moment when Conan Doyle's hunters become the hunted, the evolutionary anxiety underpinning the four novels is explicated:

My heart stood still within me as it flashed across me that the beast, whatever it was, must surely be after *me*... That these monsters should tear each other to pieces was part of the strange struggle for existence, but that they should turn upon modern man, that they should deliberately track and hunt down the predominant human, was a staggering and fearsome thought (Conan Doyle 128).

Firepower is the technological advantage that exempts “modern man” from the Darwinian “struggle for existence,” in that it provides the European imperialist with superior force lethal to any modern form of life or race of people, and therefore the luxury of considering that struggle a “strange” and hypothetical one. When firearms are deployed against prehistoric monsters and fail, however, the precariousness of modernity becomes apparent, and the soft European gentleman is thrown back into the contest of nature to face his probable extinction. With an empty shotgun in his hand and unsuitable rifle cartridges in his pockets, all that Malone, the representative of modern man, can do is turn and flee, before he is rescued by a lowly pit trap.

While fears of racial contagion contend with universalist ideals of manhood in determining the appropriate places and purposes of nonwhite races, the geologic timescales and indomitable predators of *The Lost World* and *Voyage* seem to evoke, above all, a particular anxiety about the position of whiteness. Deep time is compressed to human scales, so that prehistoric creatures appear to come from within human memory, and from within Europe: Conan Doyle’s pterodactyl looks like “some devil in a medieval picture” or “the wildest gargoyle that the imagination of a mad medieval builder could have conceived,” and though it originates in South America, the specimen that Challenger brings to London is deemed “the last European pterodactyl” (105, 184-6). The late discoverer of the eponymous Maple White Land, the link between the plateau’s distant past and the modern world, is “no Indian, but a white man; and

indeed I may say a very white man, for he was flaxen-haired and had some traces of an albino,” his extreme whiteness being further emphasized by the “White” of his patronym (Conan Doyle 27). Similarly, in the section added to the 1867 edition of *Voyage*, the “authentic specimen of Quaternary man” that Lidenbrock finds on the shore of the underground sea is “incontestably Caucasian. It is of the white race, it is of our own race!” (Verne 183). As Rieder observes, the lost-race narrative characteristically permits modern Western explorers to both experience the pleasure of discovering the undiscovered and the pleasure of finding their claim to the new place previously staked (40), in these two cases by exaggeratedly and “incontestably” white cadavers that wordlessly assert the primacy of whiteness in epistemological and historical development.

The historical model for these intrusions of whiteness into nonwhite spaces, or past worlds, or both, is Columbus’ landfall in the West Indies: “You are a Columbus of science,” Malone tells Challenger (Conan Doyle 34), Professor Lidenbrock names himself “Columbus of these underground regions” (Verne 107), and the American explorers in Astor’s *A Journey in Other Worlds* become “the first to surpass Columbus” (112). Nadia Khouri ascribes the potency of the Columbian myth in lost-world fiction as due to the “*residualness* of history,” or a sense that “history must be apprehended as vestige, living fossil, and survival” (187). These invocations of Columbus more than two hundred and fifty years after his voyages are themselves acts of excavation that recover a Ricourian trace in time. Not only do these nineteenth and twentieth-century explorers detach the moment of Columbus’ arrival from the hard matrix of history, they also recreate it under new conditions. In this regard, the “living fossil” of the Columbian encounter resembles the dinosaur fossil. While the trilobite that Axel shows Professor Lidenbrock as a warning is all surface, requiring no reconstruction by conjecture, the larger and more partial traces of dinosaur bones demand an intimate imaginative reconstruction,

which in these novels become a literal resurrection. Professor Challenger and Professor Lidenbrock, in assuming the role of Columbus, reanimate the Columbian fossil of history in much the same way as the authors bring dinosaur fossils back to fictional life. One critical fragment of the historical fossil of Columbus' first encounter with the inhabitants of the Caribbean is, of course, the beginning of the European representational tradition of the indigenous American cannibal (Lenik 79-80), and that too returns to life in the dinosaur novel.

Although no actual cannibals occupy Maple White Land, the risk of anthropophagy and the loss of bodily integrity remain vividly present in the explorers' minds. While secure in his luxurious home in the colonial metropolis, Roxton assumes that his proper position in the grand scheme of things is that of an apex predator: "I've tried war and steeplechasin' and aeroplanes, but this huntin' of beasts that look like a lobster-supper dream is a brand new sensation" (Conan Doyle 53). His comfortable reduction of prehistoric monsters to the smallness of lobsters destined for his dinner plate points to the telescoping effect of distance, which also appears in Leicester Square's miniature panoramas and dioramas of faraway lands, permitting enormous but remote bodies to be perceived as lesser than they are in reality.⁸ This assurance diminishes as the party approaches the "no-man's-land" between national frontiers, where the elite white body becomes as vulnerable to violence as the poor or nonwhite body, and where social anxieties coalesce in the mythical form of the cannibal. As the party prepares to cross over a felled tree to the plateau, Roxton stops them, arms them, and has them point their rifles toward the far side of the bridge with the warning: "For all I know there may be a tribe of cannibals waitin' for lunch time among those very bushes... It's better to learn wisdom before you get into a cooking pot" (Doyle 91). Ironically, Roxton's precautions are both justified and misdirected, for the most

⁸ A modern comparison here would be to the famous shot in Steven Spielberg's *Jurassic Park* (1993) where a pursuing *Tyrannosaurus rex* is glimpsed in a car mirror over the words "OBJECTS IN MIRROR ARE CLOSER THAN THEY APPEAR" (Mitchell 71-3).

immediate danger to the expedition is the two half-breeds behind them, who seek revenge for Roxton's "little war." The interlinked and interleaved race wars of *The Lost World* start, or more precisely resume, in this moment where whiteness stands between the métis and the savage, or the outcome of a transgression of racial perimeters and the threat of assimilation into a dark Other. Roxton's fixation on the latter, nonexistent threat rather than the former may indicate a reluctance to acknowledge the participation of white bodies in the production of métis. Rather than cannibals, however, the plateau presents the white explorer with both ravening carnivorous dinosaurs and domesticated Iguanodons raised for human consumption, or in other words a picture of a stable but non-dominant position for humans in the natural order.

Whereas Conan Doyle's dinosaurs eat and are eaten, the underground journey of Verne's expedition is represented as an interrupted process of digestion: the men "crawled and slid through narrow intestines" ("étraits boyaux")⁹ (Verne 95), progressing through the "bowels of the globe," "bowels of the Earth," "innards of the Earth," "innards of his island," and so on, which are variously translated from the French phrases "les entrailles du globe," "les entrailles de terre," "entrailles du sol," "entrailles du sphéroïde" and "les entrailles de son île" (Verne 73, 90, 96, 107-8, 127, 177, 186, 194). Meanwhile, volcanoes such as Snaeffels and Stromboli resemble mouths in their ability to "speak" and "vomit" (Verne 95, 116, 205-6). In this symbolic digestive tract, the three travelers take the place of food and in the course of their digestion transform into figurative fossils (Verne 118). Given that in *Voyage* the processes of consumption and assimilation are not to be feared but bravely undergone, with trust in the ability of scientific knowledge to render the expedition indigestible and see them spat out as indigestible in Italy, it seems natural that Verne's dinosaurs, who exist on a scale incommensurate with the human,

⁹ Quotations in French are from the 1867 Bibliothèque d'Education et de Récréation edition, digitized by Bibliothèque Nationale de France.

should endanger the explorers by their simple existence but never menace them with anthropophagy. Verne's novel alone does not pose in the dinosaurian body the question of who eats and who is eaten, although it still foregrounds the prospect of extinction.

While sailing on a raft of bituminous wood over a subterranean sea, Axel experiences and narrates an extended geological retrospect based on the "fantastic hypotheses of paleontology" that is extraordinary for its bidirectional applicability. Axel's involuntary hallucination, for that is the form the geological retrospect takes, is precipitated by his prescient conjecture that "perhaps we are going to find some of those saurians which science has succeeded in recreating from bits of bone or cartilage" (Verne 152):

I am in a waking dream. I fancy I can see on the surface of the water those enormous Chersites, those tortoises from before the flood... Along those darkened shores are passing the great mammals of the first days, the Leptotherium.... the Mericotherium... the pachydermatous Lophiodon... the Anoplothere... The giant mastodon, twisting and turning his trunk... the Megatherium... the Protopithecus... Still higher, the pterodactyl.... The whole fossil world relives in my imagination... My dream then goes ahead of the appearance of the animate beings... I pass like a shadow among arborescent ferns, treading uncertainly on the iridescent marls and rainbow-coloured sandstones underfoot; I lean against the trunks of giant conifers; I lie down in the shade of Sphenophyllas, Asterophyllites, and Lycopodia a hundred feet high (152-3).

As Axel passes backwards through time, "[his] feverish hand jots down the strange details" of what his delirious brain presents to his visual perception as reality. Ocular evidence was privileged in the Victorian era of microscopes, telescopes, and dinosaur models (Gates 181-2),

and this visual record of the paleontological imagination becomes as much a part of Axel's published record as his quieter analyses of rock strata and notations of dates, times, and pressures. Furthermore, Axel's hallucination is not only a type of geological hindsight, but also a type of foresight, and proves an accurate prediction of future events.¹⁰ The single prediction realized in the text of the first edition is Axel's sober conjecture about finding "those saurians which science has succeeded in recreating." Two days after his hallucination, the pick that the men use as a sounding line comes back with "marks of powerful teeth" that are "conical like the crocodile's" (Verne 156-7), and shortly afterwards the Plesiosaurus and Ichthyosaurus are sighted. In the material inserted in the 1867 edition of *Voyage*, after landing the raft, Axel encounters a forest composed of members of "the coniferous family" and "tree ferns" and thus he does indeed "lean against the trunks of giant conifers" and "arborescent ferns" (Verne 185). He also uncovers an ossuary of the very same prehistoric animals that appear in his vision, in the precise order of their hallucinated appearance: "a priceless assortment of Leptotheria, Mericotheria, Lophiodia, Anoplotheres, Megatheres, Mastodons, Protopithecae, Pterodactyls—of every monster from before the Flood, all in a pile there just for his gratification" (Verne 178). The concluding image of Axel's hallucination, a vision of the liquefaction of the rocks and his "being carried off into planetary space," (Verne 153), is recreated in the expedition's eventual ejection in a volcanic eruption. Axel's geological retrospect is thus depicted as a second kind of time travel in *Voyage*, valuable both for its imaginative recreation of the past and its ability to anticipate intrusions of the prehistoric in the expedition's near future.

Like the other dinosaurs of this study, Verne's Ichthyosaurus and Plesiosaurus combine the textbook rhetoric of the geological monstrous with the Romantic rhetoric of monstrous

¹⁰ One could make the argument that Axel's vision in the original 1864 publication in fact anticipates the addition of material in 1867.

excess. The Ichthyosaurus possesses “the snout of a porpoise, the head of a lizard, and the teeth of a crocodile,” while the Plesiosaurus is “a serpent, concealed under the hard shell of the turtle” (Verne 159). At the same time, Axel muses, “What gigantic organisms! What exceptional strength!” (Verne 156-8). Verne’s hybridization of old and new traditions of monstrous rhetoric in his descriptions of dinosaurs mirrors his use of dinosaurs to simultaneously embody the tremendous velocity and power of both modern machines and prehistoric life. Having previously taken multiple trains and steamers to reach Denmark, and having previously observed underground coal beds that “will be used up by over-consumption in less than three centuries, if the industrialized nations are not careful” (Verne 102), when Axel compares the two dinosaurs’ speed to “trains flying at top speed” (158), his words contain the suggestion of an eventual extinction of steam power, and, more distantly, a future global energy crisis. Even the most monstrous overgrowth must eventually meet its limits.

In this new, mechanized world of monstrous speed and power, where steam engines ravenous for coal carry men across countries and oceans, the relative weakness of the civilized white body led the late European empires, a few decades before a surge of independence and separatist movements in their colonies, to project superior evolutionary competitors in the form of fictional carnivorous dinosaurs. Occupying uncolonizable atopias, where steam power and railroad tracks did not reach, and where the raw forces of nature and geology dominated, the dinosaur could engage the white imperialist once more in the “strange struggle for existence” that the latter had avoided for long centuries. The threat of possible extinction tended to subvert existing social prejudices, and in novels that restricted women to the metropolis, it inculcated a sense of shared manhood between Europeans and indigenous men against a mutual adversary. In Conan Doyle’s *The Lost World* in particular, it is indigenous knowledge and practices that save

the white explorers, whose modern guns are useless against the dinosaurs, from a monstrous form of life so tenacious and so excessively alive that its severed heart continues to beat for days, much like a machine. In Verne's *Voyage*, the Icelandic guide Hans repeatedly saves the German members of the expedition through his instinct for finding water and his physical strength. Though the masculine alliances in these two novels stop short of marriage and sexual reproduction across national and racial borders, they are depicted as equal or superior to the heterosexual union, and in *The Lost World* they encourage a return to both the prehistoric terrors and the idealized interracial community on the imperial periphery.

CONCLUSION: FOSSIL FICTIONS, FOSSIL FUTURES

This thesis has examined four of the earliest examples of dinosaur fiction for generalizable patterns of aesthetic representation and dissent from approved imperial narratives prior to the twentieth-century diversification of significations for the dinosaur in American kitsch and capitalism. Even while invoking the genre expectations of conventional adventure fiction, early dinosaur novels stray from the hegemonic pedagogy of colonial romances such as H. Rider Haggard's *King Solomon's Mines* to elaborate the possibility of human extinction in a world of imperial stagnation and decline. This thesis has demonstrated that the threat of extinction as manifested in the carnivorous fictional dinosaur elicits conceptions of humanity as a unified and undivided species, which results in visions of futures achieved by reproductive and homosocial relationships across race, class, and national lines: Gerry's betrothal to Violet Delahay in *Beyond the Great South Wall*, for example, or Adam More's marriage to Almah in *A Strange Manuscript*. Although the effect and extent of the transgressive unions achieved in these novels are checked by such circumstances as a guaranteed advancement of social class that equalizes the affianced, or permanent separation of the interracial couple from European civilization, or else a strict refusal to participate in interracial reproduction, the figure of the dinosaur nevertheless excavates from anxieties of extinction the possibility of survival through what would have been, at the time, radical alliances challenging received social prejudices.

One correlation identified in this thesis is that which exists between the explorer's position of eater or eaten, itself an index to evolutionary fitness or unfitness and hence the likelihood of eventual human extinction, and the novel's commitment to or subversion of

European imperial ideals. Where the carnivorous dinosaur lurks at the atopian edges of empire, preying on the unwary explorer and repulsing the standard onslaught of bullets, it appears to indicate a decline in European imperial confidence. The bulletproof armor of Savile's Brontosaurus, whose destruction requires a combination of earthquake and volcano; the staggering violence of De Mille's dinosaurs, which will devour any intruders into their domain within the day; the imperviousness of Conan Doyle's monsters, which ignore the impact of bullets and survive in pieces for some time after the dismemberment of their bodies; and Verne's unstoppable Ichthyosaurus and Plesiosaurus, who cause the well-armed explorers to despair of their rifles without firing a shot: in all of these cases, textual emphasis on the indestructibility of these prehistoric monsters suggests a failing faith in the ability of European firearms to guarantee a secure future not only for European civilization but for all of humanity. Inversely, an increase of American pride in the geopolitical and geological ascendancy of the United States is reflected by John Jacob Astor IV's exclusively herbivorous space dinosaurs, which have soft, penetrable skin, susceptible to bullets, and are hunted and eaten by the American expedition.

As this thesis has shown, the early fictional dinosaur exhibits a hybrid monstrosity not only in its synthesis of the geological rhetoric of the mismatched monstrous and the Romantic monstrous rhetoric of overgrowth and excess, but also in its embodiment of the threats of the overwhelming power, size, endurance, and speed found both in prehistoric nature and in the futuristic technologies reshaping the landscape. Repeated comparisons of Verne's and Conan Doyle's dinosaurs with the railroads whose construction exposed dinosaur fossils, and with steam engines that consumed coal, link the voracious appetites of the carnivorous dinosaur to both present-day mechanical dangers and the future exhaustion of fossil fuels. The steam engine's extraordinary forces diminish human strength not only by comparison but also by

enabling a mechanized lifestyle requiring less physical exertion. The dinosaur, then, represents in turn the fear of an indomitable limit and unbreakable resistance to European imperial power, and the fear of a rapidly mechanizing modern society with a bottomless appetite for fossil fuel and catastrophic as well as beneficial effects on ordinary life.

This thesis has modified Siobhan Carroll's theory of atopias by arguing for the dinosaur as one possible inhabitant of those uncolonizable spaces, being similarly resistant to colonization and exploitation, with the added capability, most clearly illustrated by Savile's hypnotic Brontosaurus, of compelling obedience, the dissolution of social hierarchies and the boundaries of the self, and assimilation from those would-be conquistadors hoping to demand the same from indigenous populations. In focusing on the negative or Lyellian aspects of evolutionary theory rather than the Darwinian, this thesis complements in small part prior work by Gillian Beer on Darwin's influence on British narrative. In scrutinizing the geopolitical implications of British, French, and Canadian dinosaur fictions and the places where literary portrayals of dinosaurs converge with and diverge from other forms of geological writing, this thesis adds to Ralph O'Connor's and Adelene Buckland's analyses of Victorian geologists' writings as literature. It offers a masculine or neuter alternative geography to Anne McClintock's theory of a feminine pornotropics and an organizing politics of eating and assimilation rather than sexual penetration.

An inherent limitation of the scope of this thesis is its close attention to four notable works out of a corpus more than five times as large, as well as the restriction of its temporal focus to the period of 1864-1912. Edgar Rice Burroughs' Pellucidar novels, beginning with the 1914 serialization of *At the Earth's Core* and set in a hollow Earth peopled with intelligent dinosaurs, deserve a complete study of their own, which will likely describe a distinctly American gung-ho treatment of the dinosaur resembling Astor's explorers' assurance in their

mastery of other planets. It would also be profitable to investigate the late twentieth and early twenty-first century traces of early dinosaur fiction, such as the prehistoric body that mirrors fears of technological advancement, which appears in *Jurassic Park*'s coupling of cloning and the carnivorous dinosaur and *Godzilla*'s pairing of the atomic bomb with a prehistoric reptilian monster.

Furthermore, given that dinosaurs have been considered an ideal medium for visual instruction of the masses since Hawkins' creation of the Sydenham models, miniature replicas of which were distributed to classrooms throughout the United States and Great Britain, one could ask how the threats of anthropophagy and extinction latent in the fictional dinosaur might surface in the pedagogical use of dinosaurs in a wide variety of media today, from children's educational television shows, films, and picture books, to the massive reconstructed skeletons that greet the visitor in many museums of natural history. Are these deployments of the dinosaur meant to confront us with the limits to our species dominance and destructiveness and the eventual extinction of outsized appetites and unimpeded consumption? Or are they celebrations of American geopolitical and geological influence, like Jefferson's giant fossil bones, meant to instruct the masses in a nationalistic spirit?

It is clear, however, that whatever place the living dinosaur occupies in the modern psyche, in the imperial imagination of the late nineteenth and early twentieth centuries, it was a locus for fears of evolutionary out-competition, extinction, and violent reprisals for colonial expansion, standing in sharp contrast to most lost-race narratives with their triumphant exploitation of undiscovered territories and resources. Even as the carnivorous dinosaur's anthropophagous terror staged the decline of European empires, it elicited creative and subversive visions of interracial and interclass cooperation and reproduction. In displacing the

monsters of prehistory into the present, then, the authors of early dinosaur novels saw not only the eventual end of empire and the prospect of human extinction but also the possibility for a unified and undivided humanity after. That is, however tentative and qualified that vision, the early dinosaur novel can be thought of as converting a fossil fuel into a better future.

APPENDIX: DINOSAUR FICTION, 1864-1912

Adams, Samuel Hopkins. *The Flying Death*. New York: McClure, 1908. A pteranodon in Long Island.

Astor, John Jacob IV. *A Journey In Other Worlds: A Romance of the Future*. New York: Appleton, 1894. Dinosaurs on Jupiter.

Bennet, Robert Ames. *Thyra: A Romance of the Polar Pit*. New York: Henry Holt, 1901. Pterodactyls and a Mosasaur at the North Pole.

Browne, Porter Emerson. "The Diplodocus." *New Broadway Magazine* (August 1908). Tall tale about the recreation of a Diplodocus in the US.

Chambers, Robert W. "A Matter of Interest." *Cosmopolitan* (June-July 1897). Also in *The Mystery of Choice*. New York: Appleton, 1897. A "Thermosaurus" in Long Island.

Curtis, Warden Allan. "The Monster of Lake La Metrie." *The Windsor Magazine* (September 1899). Elasmosaurus in Wyoming.

De Mille, James. *A Strange Manuscript Found in a Copper Cylinder*. New York: Harper, 1888. Various dinosaurs in a polar region.

De Morgan, John. *King Solomon's Treasures*. New York: Norman L. Monroe, 1887. A pterodactyl in Africa.

Doyle, Arthur Conan. *The Lost World*. London: Hodder and Stoughton, 1912. Iguanodons, pterodactyls, and other fossil reptiles in South America.

Drayton, Henry S. *In Oudemont: Reminiscences of an Unknown People by an Occasional Traveler*. New York: Grafton Press, 1900. A dinosaur in the Andes.

"Dudbroke," Pseudonym. *The Prots: A Weird Romance*. London: S.H. Bousfield, 1903. Plesiosaurs in the Fiji Islands.

Fawcett, Edward Douglas. *Swallowed By an Earthquake*. London: Edwin Arnold, 1894.

Dinosaurs underneath Naples.

Francis, Henry. "The Last Haunt of the Dinosaur." *English Illustrated Magazine* 39 (September 1908): 577-584. A dinosaur in Africa.

Hyne, Charles John Cutcliffe Wright. *The Lost Continent*. Serialized *Pearson's Magazine* July-December 1899. Bound ed., London: Hutchinson 1900. Plesiosaurs in Atlantis, described in a wax manuscript found in the Canary Islands.

---. "The Lizard." *The Strand Magazine* (February 1898). An unspecified fossil reptile in Kettlewell.

Lermina, Jules. *L'Effrayante Aventure*. Paris: Tallandier, 1910. Frozen dinosaurs thaw under Paris.

Little, C. "Dick and Dr. Dan: Or, the Boy Monster Hunters of the Bad Lands." *Happy Days* (17 March-5 May 1900). A Plesiosaurus and other dinosaurs underground in Wyoming.

Milne, Robert Duncan. "The Iguanodon's Egg" and "The Hatching of the Iguanodon," *The Argonaut* (April 1-8 1882). An Iguanodon hatches in New Guinea.

Montgomery, Richard R. "I: A Story of Strange Adventure." *Pluck and Luck* 217 (20 July 1902). A pterodactyl and Megalosaurus in Africa.

Muddock, J.E. Preston. *The Sunless City*. London: White, 1905. Brief appearance of a turtle-like fossil reptile compared to the Megalosaurus.

Noname (Luis Philip Senarens). *The Silver Sea: Or, Frank Reade, Jr.'s Submarine Cruise in Unknown Waters*. Frank Reade Library 178, 4 Feb 1898. An Ichthyosaurus in Antarctica.

- Pope, Gustavus W. *Romances of the Planets No. 2: Journey To Venus. The Primeval World: Its Wonderful Creations and Gigantic Monsters*. Boston: Arena Publishing, 1895. Dinosaurs on Venus.
- Powell, Frank. *The Wolf-Men*. London: Cassel, 1906. Dinosaurs in a polar pit.
- Ramsey, Milton Worth. *The Austral Globe*. Minneapolis: Milton W. Ramsey Publishers, 1892. Dinosaurs, unidentified as such, past the South Pole.
- Robinson, Phil. "The Last of the Vampires." *Contemporary Review* 63 (March 1893): 410-415. Pterodactyl or pterandon in South America.
- Savile, Frank Mackenzie. *Beyond the Great South Wall: The Secret of the Antarctic*. London: Sampson, Low, Marston, Seale and Rivington, 1899. A Brontosaurus in Antarctica.
- Sloane, Thomas Charles. "The Pterodactyl." *Strand Magazine* 34.200 (September 1907): 188-200. A pterodactyl in Virginia.
- Stables, William Gordon. *The City at the Pole*. London: James Nisbet and Co, 1906. Dinosaurs and pterodactyls in a polar pit.
- Verne, Jules. *Voyage au centre de la terre*. Paris: J. Hetzel, 1864, 1867. A Plesiosaurus and an Ichthyosaurus under Europe.
- Webster, Edward J. "The Slaying of the Plesiosaurus." *National Magazine* 17.6 (March 1903): 755-761. A Plesiosaurus in Central Africa.
- Widnall, Samuel Page. *A Mystery of Sixty Centuries: Or, A Modern St George and the Dragon*. Cambridge, UK: The Author, 1889. A pterodactyl in Africa.

WORKS CITED

- Angenot, Marc and Nadia Khouri. "An International Bibliography of Prehistoric Fiction." *Science Fiction Studies* 8.1 (1981): 38-53. Web. 17 April 2015.
- Arment, Chad, ed. *Sauria Monstra: Dinosaurs, Pterosaurs, and Other Fossil Saurians in Classic Science Fiction and Fantasy*. Landisville, PA: Coachwhip, 2009. Print.
- Astor, John Jacob IV. *A Journey In Other Worlds: A Romance of the Future*. New York: Appleton, 1894.
- Beer, Gillian. *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot, and Nineteenth-Century Fiction*. Cambridge, UK: Cambridge UP, 2000. Print.
- Bleiler, Everett F. *Science Fiction: The Early Years*. Kent, OH: Kent State UP, 1990. Print.
- Brinkham, Paul. *The Second Jurassic Dinosaur Rush: Museums and Paleontology in America at the Turn of the Twentieth Century*. Chicago: U of Chicago P, 2010. Print.
- Buckland, Adelene. *Novel Science: Fiction and the Invention of Nineteenth-Century Geology*. Chicago: U of Chicago P, 2013. Print.
- Carroll, Siobhan. *An Empire of Air and Water: Uncolonizable Space in the British Imagination, 1750-1850*. Philadelphia: U of Pennsylvania P, 2015. Print.
- Cohen, Margaret. *The Novel and the Sea*. Princeton: Princeton UP, 2010.
- Dawson, Gowan. "Literary Megatheriums and Loose Baggy Monsters: Paleontology and the Victorian Novel." *Victorian Studies* 53.2 (2011): 203-230. Web. 17 July 2015.
- Deane, Bradley. *Masculinity and the New Imperialism: Rewriting Manhood in British Popular Literature, 1870-1914*. Cambridge: Cambridge UP, 2014. Print.
- Delair, Justin B. and William A.S. Sarjeant. "The Earliest Discoveries of Dinosaurs." *Isis* 66.1 (1975): 4-25. Web. 26 January 2015.

- De Mille, James. *A Strange Manuscript Found in a Copper Cylinder*. Ed. Malcolm Parks. Montreal: McGill-Queen's UP, 2000. Print.
- Dickens, Charles. *Bleak House*. London: Penguin Books, 2003. Web. 6 June 2015.
- . "The Lost Arctic Voyagers." *Household Words*. (2 and 9 December 1854): 362-65, 387-393. Web. 8 July 2015.
- Doyle, Arthur Conan. *The Lost World*. Ed. Ian Duncan. Oxford: Oxford UP, 1998. Print.
- Dunham, Arthur L. "How the First French Railways Were Planned." *Journal of Economic History* 1.1 (1941): 12-25. Web. 4 August 2015.
- Eiseley, Loren. *Darwin's Century*. Garden City, NY: Anchor Books, 1961. Print.
- Fayter, Paul. "Strange New Worlds of Space and Time: Late Victorian Science and Science Fiction." *Victorian Science in Context*. Ed. Bernard Lightman. Chicago: U of Chicago P, 1997. 256-280. Print.
- Forman, Ross G. "Room for Romance: Playing with Adventure in Arthur Conan Doyle's *The Lost World*." *Genre* 43 (2010): 27-59. Web. 4 August 2015.
- Foucault, Michel. "Behind the Fable." *Critical Texts* 5.2 (1988): 1-5. Print.
- Freeman, Michael. "Tracks to a New World: Railway Excavation and the Extension of Geological Knowledge in Mid-Nineteenth-Century Britain." *British Journal for the History of Science* 34.1 (2001): 51-65. Web. 8 April 2015.
- Gates, Barbara T. "Ordering Nature: Revisioning Victorian Science Culture." *Victorian Science in Context*. Ed. Bernard Lightman. Chicago: U of Chicago P, 1997. 179-86. Print.
- Gerson, Carole. "A Contrapuntal Reading of *A Strange Manuscript found in a Copper Cylinder*." *Essays on Canadian Writing* 56 (1995): 224-35. Web. 8 April 2015.

- Gigante, Denise. "The Monster in the Rainbow: Keats and the Science of Life." *PMLA* 117.3 (2002): 433-48. Web. 17 July 2015.
- Glendening, John. "'The World-Renowned Ichthyosaurus': A Nineteenth-Century Problematic and Its Representations." *Journal of Literature and Science* 2.1 (2009): 23-47. Web. 7 April 2015.
- Haggard, H. Rider. *King Solomon's Mines*. New York: Longmans, Green, and Co. 1901. Web. 21 October 2015.
- Hawkins, Benjamin Waterhouse. "On Visual Education as Applied to Geology." *Journal of the Society of Arts* Vol. 2. London: George Bell, 1854. 444-447. Web. 16 August 2015.
- Hulke, John W. "An Attempt at a Complete Osteology of *Hypsilophodon Foxii*; a British Wealden Dinosaur." *Philosophical Transactions of the Royal Society* 173 (1882): 1035-1062. Web. 4 April 2015.
- Jefferson, Thomas. "To M. De La Capede." *The Writings of Thomas Jefferson: Being His Autobiography, Correspondence, Reports, Messages, Addresses, and Other Writings, Official and Private* Vol 5. Washington, DC: Taylor and Maury, 1853. 309-312. Web. 6 November 2015.
- Khouri, Nadia. "Lost Worlds and the Revenge of Realism." *Science Fiction Studies* 10.2 (1983): 170-90. Web. 4 May 2015.
- Kilgour, Maggie. "Cannibals and Critics: An Exploration of James de Mille's *Strange Manuscript*." *Mosaic* 30 (1997): 19-37. Web. 8 April 2015.
- Kime, Wayne R. "The American Antecedents of James De Mille's *A Strange Manuscript Found in a Copper Cylinder*." *Dalhousie Review* 55 (1975): 280-306. Print.

- Knell, Simon J. *The Culture of English Geology, 1815-1851: A science revealed through its collecting*. Aldershot, UK: Ashgate, 2000. Print.
- La Bossière, Camille R. "The Mysterious End of James De Mille's Unfinished *Strange Manuscript*." *Essays on Canadian Writing* 27 (1983-84): 41-54. Web. 8 April 2015.
- Lamont-Stewart, Linda. "Rescued by Postmodernism: The Escalating Value of James De Mille's 'A Strange Manuscript Found in a Copper Cylinder.'" *Canadian Literature* 145 (1995): 21-36. Web. 8 April 2015.
- Leane, Elizabeth. *Antarctica in Fiction: Imaginative Narratives of the Far South*. Cambridge, UK: Cambridge UP, 2012. Print.
- Lenick, Stephan. "Carib as a Colonial Category: Comparing Ethnohistoric and Archaeological Evidence from Dominica, West Indies." *Ethnohistory* 59.1 (2012): 79-107. Web. 16 August 2015.
- Lewin, Henry Grote. *The British Railway System: Outlines of Its Early Development to the Year 1844*. London: G. Bell & Sons, 1914. Web. 8 August 2015.
- Luckhurst, Roger. "Laboratories for Global Space-Time: Science-Fictionality and the World's Fairs, 1851-1939." *Science Fiction Studies* 39.3 (2012): 385-400. Web. 4 May 2015.
- Lyell, Charles. *Principles of Geology* Vol 3. 5th ed. London: John Murray, 1837. Web. 12 August 2015.
- Mantell, Gideon. *The Geology of the South-East of England*. London: Longman, Rees, Orme, Brown, Green, & Longman, 1833. Web. 10 August 2015.
- Marshall, Nancy Rose. "'A Dim World, Where Monsters Dwell': The Spatial Time of the Sydenham Crystal Palace Dinosaur Park." *Victorian Studies* 49.2 (2007): 286-301. Web. 4 May 2015.

- McClintock, Anne. *Imperial Leather: Race, Gender and Sexuality in the Colonial Conquest*.
New York: Routledge, 1995. Print.
- Milnes, Stephen. "Colonialist Discourse, Lord Featherstone's Yawn, and the Significance of the
Denouement in *A Strange Manuscript Found in a Copper Cylinder*." *Canadian
Literature* 145 (1995): 86-104. Web. 8 April 2015.
- Mitchell, W.T. *The Last Dinosaur Book: The Life and Times of a Cultural Icon*. Chicago: U of
Chicago Press, 1998. Print.
- Monk, Patricia. *The Gilded Beaver: An Introduction to the Life and Works of James De Mille*.
Toronto: ECW, 1991. Print.
- Moretti, Franco. *Atlas of the European Novel, 1800-1900*. London: Verso, 1998. Print.
- . *The Way of the World: The Bildungsroman in European Culture*. London: Verso, 2000.
Print.
- Morley, Henry. "Our Phantom Ship on an Antediluvian Cruise." *Household Words* 3.73 (1851):
492-496. Web. 8 July 2015.
- Multineddu, Flavio. "A Tendentious Game with an Uncanny Riddle: *A Strange Manuscript
Found in a Copper Cylinder*." *Canadian Literature* 145 (1995): 62-81. Web. 8 April
2015.
- Obruchev, Vladimir. *Plutonia*. Moscow: Foreign Languages Publishing House, 1956. Print.
- O'Connor, Ralph. *The Earth on Show: Fossils and the Poetics of Popular Science, 1802-1856*.
Chicago: U of Chicago Press, 2007. Print.
- "Our Monthly Gossip." *Lippincott's Magazine of Literature, Science, and Education*. Vol. 1.
Philadelphia: J.B. Lippincott & Co, 1868. 219-226. Web. 17 July 2015.

- Parrish, Susan Scott. *American Curiosity: Cultures of Natural History in the Colonial British Atlantic World*. Chapel Hill: UNC Press, 2006. Print.
- Prescott, William H. *History of the Conquest of Mexico*. Philadelphia: J.B. Lippincott, 1873. Web. 15 July 2015.
- Reider, John. *Colonialism and the Emergence of Science Fiction*. Middletown, CT: Wesleyan UP, 2008. Print.
- Savile, Frank. *Beyond the Great South Wall: The Secret of the Antarctic*. New York: Amsterdam Book Company, 1903. Web. 13 July 2015.
- Secord, James A. "Monsters at the Crystal Palace." *Models: The Third Dimension of Science*. Ed. Soraya de Chadarevian and Nick Hopwood. Palo Alto: Stanford UP, 2004. 138-169. Print.
- Shatto, Susan. "Byron, Dickens, Tennyson, and the Monstrous Efts." *Yearbook of English Studies* 6 (1976): 144-155. Web. 1 January 2015.
- Simoons, Frederick J. *Eat Not this Flesh: Food Avoidances from Prehistory to the Present*. Madison: U of Wisconsin P, 1994. Print.
- Standish, David. *Hollow Earth: The Long and Curious History of Imagining Strange Lands, Fantastical Creatures, Advanced Civilizations, and Marvelous Machines Below the Earth's Surface*. Cambridge, MA: Da Capo Press, 2006. Print.
- Thacker, Eugene. *After Life*. Chicago: U of Chicago Press, 2010. Print.
- Verne, Jules. *Journey to the Centre of the Earth*. Trans. William Butcher. Oxford: Oxford UP, 2008. Print.
- Wells, H.G. *The War of the Worlds*. New York: Harper & Brothers, 1898. Web. 4 November 2015.

Wilson, Philip James. "Notice on the Megalosaurus or great fossil lizard of Stonefield; observations on the beginning of Bleak House." *Dickensian* 78 (1982): 97-104. Print.

Zimmerman, Virginia. *Excavating Victorians*. Albany: SUNY Press, 2008. Print.