Missionary Lizards: Dinosaurs in American Evangelicalism

by

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Middletown, Connecticut
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For my dad,
John Ford.
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Introduction

Last summer, I visited a paleontological museum display for the first time in many years. As a child growing up in New York, I was a frequent visitor to the American Museum of Natural History, first in the company of my parents, and later on school field trips. Despite this new museum’s technological sophistication and architectural modernity, what I saw last summer was not altogether different from what I remembered from my childhood. I was in a massive lobby, surrounded by adults taking attendance for tour groups congregated near the gift shop, by families waiting in line for the planetarium, and by children curiously inspecting displays of fossils and models of geological formations. There were, however, some very striking differences. In front of me were two fearsome-looking animatronic velociraptors, their eyes radiating the alien intelligence of beasts long departed from the earth. Velociraptors were virtually unknown to the paleontology of my childhood, and only gained popular currency with the release of *Jurassic Park* in 1993. And next to the velociraptors, stood two animatronic cave children, looking serenely at ease, at play beside the dinosaurs. The plaque that accompanied this tableau contained a biblical passage, and noted matter-of-factly that such scenes were once everyday occurrences in a none-too-distant past. Unlike my classmates and I, years ago, the eager young children here at the Creation Museum in Petersburg, Kentucky, enrapt before the towering spectacle of beasts resurrected from extinction, had been
brought to absorb not the teachings of Charles Darwin in *The Origin of Species*, but of Jesus Christ in the Bible.

The evangelical incorporation of dinosaurs into a text that does not mention them by name and into a faith that opposes many of the tenets of secular science is not as surprising as it might seem, and the ease with which this incorporation has been accomplished is the subject of this thesis. I will argue that to American children—and presumably to many of their parents—dinosaurs and the time in which they lived are simultaneously real and fantastical. Just as the stories and characters of the Old and New Testaments are both historical and mythic, dinosaurs embody a fusion of the distant past and an electrifying, visceral present—although dinosaurs are extinct, they occupy a vital and animate part of children’s symbolic frame of reference. Like the ancient texts of the Bible, the fossilized remains of dinosaurs provide a frame for imaginative faith. Part aesthetic and part scientific, children’s fascination with dinosaurs presents a challenge to conventional Christian doctrine as well as a unique opportunity for Christian children’s media. On one hand, dinosaurs are inevitably linked to secular evolutionary theory; on the other, the excitement and intellectual engagement dinosaurs elicit in children provide a potentially powerful gateway for education and indoctrination. Without a space in the Christian doctrinal canon for dinosaurs, American evangelicals would find themselves hopelessly outmoded in the modern media marketplace; dinosaurs are simply too colossal a presence in children’s imaginations to ignore or discount, even if their presence in the Bible is hardly obvious. My own sense is that the cognitive mechanisms by which children engage with dinosaurs have turned out to be uniquely suited for religious
indoctrination; in their use of dinosaurs, evangelicals have fashioned a potentially problematic source of doctrinal instability into a sophisticated tool with which their beliefs can be impressed upon their youngest followers.

The opening of the Creation Museum in 2007 was one more step in a decades-long transition from Christian evangelicalism’s self-imposed exile back into the public sphere. It is one aspect of modern evangelicalism’s reacquisition of a well-hewn political acumen. In *The Book of Jerry Falwell*, Susan Harding writes, “In creation science and its museums, we witness, we encounter, the politics of a people deformed by the emergence and eventual dominance of modern liberal and secular discourses. But banishing God and Fundamentalists from the modern garden, that is, in this case, from natural science, also enabled a sequel in which they returned.” The discursive weapons marshaled in every display and sign at the Creation Museum are ones borrowed from its foes. With the Scopes Trial of 1925, science effectively silenced evangelical voices in the popular dialogue. Today, science, and dinosaur paleontology in particular, provides for evangelicals a methodology and a rhetorical focus for their renewed debate with secularism.

While evangelicalism’s reengagement with the secular has made a formerly isolated movement far more visible and influential in the public sphere, the same reengagement has created rifts within the church that make any firm definition of the term “evangelical” problematic. In the latter part of the 20th century, the Protestant conception of “the Church” within American society began to change. As leaders such as Billy Graham and Jerry Falwell inaugurated an era of unity behind the

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common goal of “saving the soul of America,” the church turned its attention from its separatist congregation to the entire nation. In the broader evangelical community, however, divergences appeared over the means through which such national salvation could best be achieved. To an extent, the debate sharpened distinctions within the evangelical community. Today, the American evangelical church cannot be treated as a monolithic entity. Its members and adherents are diverse in their politics as in their practice. Terms like “Fundamentalists” and “Religious Right” neither encompass nor adequately describe the groups that now worship in the congregations of modern Christian evangelicalism. As Harding notes, “The public power of fundamentalists-cum-born-again Christians came precisely from their capacity to destabilize and undermine the cultural opposition between Fundamentalist and Modern by fashioning a third, studiously ambiguous, figure which joins the incongruous terms.” This polymorphous figure is the contemporary American evangelical.

The term Evangelicalism itself is not lost in a haze of vagueness – despite the breadth of their movement, evangelical Americans hold a core set of unifying beliefs. For all their heterogeneity, these worshippers share the common roots of a distinct faith. Mark Noll cites David Bebbington’s definition of the “key ingredients” of evangelicalism, namely, “conversionism (an emphasis on the ‘new birth’ as a life-changing experience of God), biblicalism (a reliance on the Bible as ultimate religious authority), activism (a concern for sharing the faith), and crucientrism (a focus on Christ’s redeeming work on the cross, usually pictured as the only way for

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salvation).”

Nancy Ammerman identifies evangelism, inerrancy, premillennialism, and separatism as the basic tenets of Christian fundamentalism. These two descriptions frame the basic architecture of a religious faith that places a premium on scriptural truth and the role of the individual’s relationship with God. Those who share these beliefs are no small thread in the American religious tapestry: The Pew Forum on Religion and Public Life’s 2008 Religious Landscape Survey found that 26.3% of US adults identify themselves as evangelical Protestants.

The specific sense of evangelicalism and its members that will inform this thesis incorporates elements of both Bebbington’s and Ammerman’s definitions. At times, I will also assess commonalities in the church as a whole and will use the term “evangelical” in reference to a particular hybrid community of American Christians. This is not to conflate all strains of evangelicalism or run roughshod over very important ideological and doctrinal cleavages – rather, I will use broad terms to speak about a correspondingly broad, if diverse, community, one that comprises the principal consumers of Christian dinosaur media.

At other times, however, I will refer to a more specific subset of evangelicalism, those responsible for the production and propagation of dinosaur media. These are “non-separatist” Fundamentalist evangelicals: they are defined specifically by a belief that the Bible is infallible and divinely inspired, and are dedicated to spreading “the Good Word” to as many nonbelievers as possible. They

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are, what Susan Harding refers to as, “new ‘postfundamentalist’…avowedly not militant and not separatist…committed to a more nuanced understanding of biblical truth.” They share with other evangelical groups an oscillation between a sense of disenfranchised difference and a willingness, or even a sense of obligation, to empower those differences. What is most significant to the “postfundamentalist” evangelical community—and to this thesis—is biblical literalism and a strict belief in the enduring truth of the scriptures. Not long ago, it would have hardly seem likely that dinosaurs, ubiquitous devices in the teaching of evolution, might ever enter the pedagogy of creationism, much less become aspects of the literalist tradition of biblical inerrancy.

The Creation Museum, with its biblical placards, is an example of the textual incorporation of dinosaurs, but it is hardly unique. Dinosaur evangelical media are publicly available in bookstores, on the internet, as well as in museums. The reasons for their appearance and broad dissemination are complex and can only—and perhaps only in part—be explained with reference to the developmental psychology of children, sociocultural history, and religious theory. By necessity, this thesis cannot hope to refer to any of these disciplines in encyclopedic breadth and depth. It thus runs the risk of seeming to pick and choose evidence that suits its argument from whatever field may supply it. On the other hand, I have done my best to range broadly, if not deeply, and to structure arguments and marshal evidence that are not merely eclectic but consistent with a broad reading of available literature, including both primary sources from the evangelical community itself and secondary sources in these fields. Child ethnography and specifically religious theory in relation to children

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7 Harding, The Book of Jerry Falwell, 17.
is, at the moment, a somewhat marginal enterprise. Here too, I have been obliged to blend sources from a variety of disciplines to address the specific context of children, dinosaurs, and their confluence in the evangelical faith.

The first chapter provides a cultural survey of secular dinosaur media, with a particular focus on films. This chapter also examines and applies literature from the field of psychology to explain children’s fascination with dinosaurs. The films and the literature both suggest that the phenomenon of “dinomania” has roots both in individual psychological development as well as in social and cultural patterns that are echoed and replicated by media that make use of dinosaurs.

Chapter 2 details the impact of evolutionary theory on evangelical Christianity, and traces the emergence of creation science as a direct response. The chapter examines the prominent role that dinosaurs have played in the continuing debate between evolutionists and creationists. I have concluded, somewhat paradoxically, that evolutionary theorists and their media tend to make use of dinosaurs as sources of “enchantment,” while creation scientists and their media use dinosaurs as sources of “disenchantment” in an effort to ground its assertions in empiricism.

The next chapter discusses secular children’s dinosaur media and the ways in which the myth of the dinosaurs is employed toward various ends by the secular community. Chapter 3 also addresses the challenges that this myth—as much as the science of paleontology—poses to evangelicalism, before turning to a history of evangelical children’s media and its use of dinosaurs as a tool for its own mythmaking.
Chapter 4 takes the social and psychological aspects of dinosaur fascination, discussed in Chapter 1, and applies them to religious theory. Religious beliefs and practices are, in certain respects, comparable to the socio-psychological phenomenon of dinosaur fascination, and this similarity may offer an explanation as to the role that dinosaurs now play in the evangelical church and its child-directed media.

The same similarities may also tell us something about religion and the field of religious studies. “Dinomania,” I have ultimately concluded, is a form of transcendence through which various dichotomies, past and present, myth and history, subject and object, are simultaneously sustained and resolved. In this respect, it bears a certain resemblance to religious experience.
Since the unearthing of their first fossils, dinosaurs have maintained a grip on public and private imagination. Few other cultural icons present so powerful a fusion of the scientific and the imagined, the factual and the fantastical. In films, dinosaurs remind us of our inability to contain and subjugate the natural world; in secular textbooks, they illustrate the vagaries of evolution and the vast expanse of prehistory; on children’s television shows, they help demonstrate a way to navigate a world governed by adult social norms and rules. Having departed the Earth some sixty-five million years ago, dinosaurs represent an inexhaustibly broad social canvass; year after year, they provide a malleable tool for the reflection and projection of our fears, hopes and deep-seated anxieties. For a subject about which we have seemingly accumulated so much knowledge, dinosaurs nonetheless remain an enigma, shrouded by the eons that divide our historical moment from theirs.

“Lizard kings” both familiar and alien at once, dinosaurs provide a powerful vehicle for the communication of the modern human experience. One of the many purposes they serve is to link the atavistic and the civilized, the mythic and the rational. Dinosaurs mediate these aspects of identity whether for the culture as a whole or for individuals—they serve as a marvelous bridge because they are both
actual and monstrous. Dinosaurs can serve as cultural symbols of both otherness and familiarity, acting as our doubles and as our antagonists. Even the most cursory glance at dinosaurs as cultural icons suggests that their appeal has deep roots that cannot be explained simply by a fascination with empirical mystery. It is clear that dinosaurs have both cultural and psychological relevance. Any brief survey of mass media since the discovery of dinosaur fossils indicates that they are powerful semiotic symbols with roots both in cultural identity and in individual psychology. In each case, the role dinosaurs serve has to do with mitigating the tension between myth and reality and in the process synthesizing imaginative thought and empirical thought.

Paleontologist Stephen Jay Gould describes the “archetypal fascination” with dinosaurs as, “…big, fierce, extinct — in other words, alluringly scary but sufficiently safe”.¹ Like many icons that have been subsumed into our culture, dinosaurs function as a social canvas. Once the ephemeral image of long-dead giants, conjured by their bizarre remains, dinosaurs are now an archetype, ubiquitous and manifest in our cultural landscape. Dinosaurs are so prevalent in our society that they can serve as a vehicle for our prevailing fears, hopes and anxieties – and yet, they are distant enough in space and in time that they can be cathected and reinterpreted safety. W.J.T Mitchell argues that, while the alluring terror of dinosaurs is a good jumping off point to explain our intoxication with them, it is insufficient because it is ahistorical— it does not explain the regular and “periodic outbursts of dinomania”.² At certain points in the past century, America has been swept up in waves national fascination with

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these lizard kings of old. We devote films, books, and excess cultural energy to dinosaurs, projecting the zeitgeist of the moment onto their leathery hides.

Iterations of dinosaurs in our media can be divided into two broad categories: those that mediate historical events by mythologizing our history, and those that transform myth into science. These stories either take the form of mythical explanations for empirically observed phenomenon, or they ground myth in science or empiricism. Dinosaur myths, in one direction or another, synthesize empirical and imaginative modes of thought – they express the wish and simultaneously the fear that these creatures are still alive and still with us.

The monster film is the most powerful (and popular) vehicle for the portrayal of the complex, conflicting archetypes of dinosaurs. As Timothy K. Beal writes, “The image of the monster, as paradoxical embodiment of otherness, the other within, is presented as a conglomeration of mutually exclusive categories, working to confuse distinctions between inside and outside, this worldly and other worldly, and especially between self and other.” This “confusion”, or mediation, has often served cultural ends. As the brief calm of post-World War II era hardened into Cold War paranoia, dinosaurs took on renewed significance as the conduit for the fears and anxieties of the moment. As the full ramifications of the nuclear arms race became eerily clear, technology suddenly took on a sinister mien – whereas technology has been seen as the engine of social uplift in the turn-of-the-century progressive era, in the post-war period it became a symbol of our hubris and willful self-destruction.

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In Japan, a country brought to its knees by the awesome destructive force of the atomic bomb, these fears were especially powerful. Japanese monster movies like *Godzilla* and *Rodan* worked to repair the collective psychological injury and mediate the terrible threat of nuclear holocaust. In *Godzilla* (1954), a four-hundred-foot dinosaur awakened by nuclear experimentation unleashes its flaming radioactive breath on Tokyo, threatening to destroy the city in clouds of fire. It is in no way a coincidence that Godzilla is awakened by a nuclear test; the profound disruption of the natural order (the atom bomb) triggers yet another disruption, the reawakening of long-dead dinosaurs to wreak havoc (in the 1956 American release, *Godzilla, King of the Monsters!*), his movements are tracked by an American reporter working in cooperation with Japanese scientists, a metaphor for the post-war relationship between the U.S. and Japan). In *Rodan* (1956), a prehistoric beast is awakened by mining operations deep within the earth, and this fearsome giant terrordactyl similarly wreaks havoc on an unsuspecting populace. *The Giant Behemoth* (1958) depicts a monster that is (again) awakened by offshore atomic testing, but this time, the dinosaur-like beast, a sort of amphibious plesiosaur, terrorizes London. The film allegorizes not only the Blitz but Dresden and Hiroshima, crystallizing the unsettling feeling that this “could also happen to us”.

All three films depict terrible creatures awakened by the profligate use of technology, each set in places all but destroyed in the fierce fighting of World War II. In both *Godzilla* and *The Giant Behemoth*, the monsters are not just resurrected by technology, but felled by it as well (a fictional “oxygen destroyer” in *Godzilla* and a radioactive torpedo launched from a submarine in *The Giant Behemoth*). In a sense, it
is not simply technology that is the threat, but wild, unharnessed technology. As Mitchell writes, “The dinosaur is the hundred-story monster that looms next to the skyscraper of modern science and technology. At one moment it seems like an outgrowth of the skyscraper: at another, like a rival that threatens to tear the skyscraper down”. After all, the beasts themselves are metaphors of technological warfare: Godzilla kills with fiery breath, the giant behemoth with a kind of radioactive gaze that reduces crowds to ashes. In the end, however, the same science that awakened destruction comes to the rescue; once the heroic survivors are able to arrive at a scientific explanation for the monster’s appearance, they are also able to devise of a way to defeat it. Mastery of science can be used to rein in the technological perversion of nature that science unleashed in the first place.

The film *Jurassic Park* inaugurated a second era of popular dinosaur intoxication. Following the general archetype, Crichton’s novel and Spielberg’s film describe a hubristic use of technology, one that spawns terrible creatures that bring death and destruction. Here, however, the fearsome creatures are not awakened from some ageless slumber by man’s carelessness – they are brought to life for a purposeful end unto itself. As Mitchell suggests, the story embodies the fulfillment of “the dream of visual ‘restoration’ of dry bones into living, moving animals... These dinosaurs are fully released from science (while retaining their pseudoscientific legitimacy) into the realm of mass mythology and imagination...” The oblivious geneticists of *InGen*, the amoral technocrats who hatch dinosaurs to life in *Jurassic Park* are well aware of the beasts’ awesome ability to strike fear and cause carnage.

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5 Beal, “Behold Thou Behemoth,” 200.
Theirs is a self-conscious, post-modern use of technology; by resurrecting the dinosaurs, they will harness elemental fears and fascinations so as to draw crowds to a theme park, that most post-modern and capitalistic of shrines. Rather than being birthed as the accidental products of self-defense (the atomic testing in *Behemoth* and *Godzilla*) or resource extraction (*Rodan*), the dinosaurs of *Jurassic Park* are created willfully to turn a profit; science in 1950s was noble but misguided, by the 1980s it is simply misguided. Mitchell places the change in a cyclical context: “The dinosaur is the animal emblem of the process of modernization, with its intertwined cycles of destruction and resurrection, innovation and obsolescence, expansive ‘giantism’ and progressive ‘downsizing’”. Mitchell further describes the dinosaur the “totem animal of modernity” because it first came into popular consciousness in the modern era and because it epitomizes modern sense of time (a vast geological time), as well as modern societal trends like capitalism. *Jurassic Park* reflects this distinctly modern element of dinosaur symbology; in some ways, the film shares a pedigree with *King Kong*, another monster film in which a prehistoric creature is harnessed to generate monetary gain. As Mitchell writes, “…two great modern narratives—the Big Game Hunt (*King Kong*) and scientific resurrection (*Frankenstein*)—converge in *Jurassic Park*’s narrative of the dinosaur’s rebirth”. *Jurassic Park* plays on our fantasies of using technology to renew and extend life while also reminding us that such elemental acts of creation are inevitably tied to elemental destruction. Time is the real subject that the scientists of *Jurassic Park* experiment with, and it proves to be a profoundly unstable and volatile subject indeed.

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7 Ibid, 67.
8 Ibid, 63.
Jurassic Park represents a turn toward realism; unlike the fantastical behemoths of their cinematic forebears, the dinosaurs of Jurassic Park are the products of explicit scientific theories. For a presumably more skeptical age, the rhetoric of genetics and chaos theory gives necessary heft to these prehistoric villains. This narrative shift is not without precedent. Arthur Conan Doyle, author of The Lost World, went to great lengths to give his novel scientific grounding. He used paratextual devices such as meticulous maps and detailed illustrations of the prehistoric animals to lend an earthly, lived-in realism to his story. Dressed up as the novel’s protagonist, Professor Challenger, he appeared in a photograph on the book’s first edition cover. Doyle—and Crichton and Spielberg many years later—was said to have created “rationally coherent and internally consistent worlds of wonder that could be inhabited imaginatively.” The literary and cinematic depictions of dinosaurs have always mediated the opposition of imagination and science.

Ironically, the myth of Jurassic Park actually preceded the science, rather than the science (or history) preceding the myth. On June 10, 1993 – the very day after the film premiered at the National Building Museum in Washington, D.C.—a leading British science journal, Nature, reported results of a successful extraction of DNA from a beetle entombed in amber. Gould writes of the published article, “When a staid and distinguished British journal uses the premiere of an American blockbuster film to set the sequencing of its own articles, then we have reached an ultimate integration…Orwell’s pigs have become human surrogates walking on two

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11 Gould, Dinosaur in a Haystack, 225.
legs—and ‘already it was impossible to say which was which’”12. The film was about science exploited to turn a profit; actual scientists then exploited the popularity of the film to promote science.

The audiences that filled the theaters for *Jurassic Park* that summer in 1993 were engaged in a cultural phenomenon, but each ticket sold brought with it a unique, personal response to the film. Clearly, dinosaurs are not only co-opted for use as cultural symbols, but also play parts in the dramas of individual identities. As Beal writes, “…the monster projected onto the silver screen may be the projection of a latent chaos that is not only in our world but also in ourselves.”13 Dinosaurs, with their mercurial, wild fearsomeness, are powerful reflections of conflict-ridden emotional development. They have clear relevance to personal psychology and the development of consciousness, relevance that is interrelated, yet distinct from their roles as tools in popular culture. Dinosaurs are employed not only to scare and to amuse, but to serve as sounding boards against which one can measure personal and emotional growth.

According to Freud, the repository of raw, animalistic desires is the Id, that unconscious region of the mind that knows only the drive to seek pleasure and to satisfy its appetites.14 It is the unrepentantly primal id that remains ever at war with

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14 The Freudian model for the development of consciousness is an enduring fixture of our popular psychological landscape. While it has been modified, adapted, and its more outlandish facets dismissed outright, Freudian theory has nonetheless become a part of the basic groundwork of contemporary psychological theory and psychoanalytical practice. Freud’s greatest supposition – that a division between consciousness and unconsciousness defines and shapes our mental existences – is one that has not only survived, but has become the bedrock of an entire field of study. The idea that consciousness develops from an undifferentiated state into an “ego,” and the idea of a libidinal atavistic pool are
our higher-order, rational tendencies. Carl Sagan offers another not entirely dissimilar description of psychological structure. In *Dragons of Eden*, he argues that the most primitive region of the human brain is the “Reptilian or R-complex,” and that it is responsible for more irrational, compulsive and aggressive tendencies in human behavior—humans’ *dinosaurian* nature. For Sagan, the “R-complex” is equivalent to Freud’s “id”. The inhibition of the vestigial R-complex by the more highly-developed temporal lobe is equated by Sagan to the repression of the id by the superego. The basic, undeniable engine of wants and desires, the reptilian brain or “id”, is the vestige one’s repressed primitive urges. Sagan’s theory, while unsubstantiated, points to the apt comparison that can be drawn between the “dinosaur” in us all and Freud’s id.

If dinosaurs serve as symbols of the id, then they are equated with the basic urges that define our “animal” lives. Dinosaurs function as symbolic representations of the libido. The dinosaur—like sex itself—is simultaneously desired and feared, fascinating and terrifying. Our intoxication with the fearsome, primal urges that dinosaurs represent is tempered by our deep-seated alienation from them. Dinosaurs, real but removed, having left no traces but their fossil remains, not only serve as metaphors for the id but their history and the history of their discovery recapitulates the development of consciousness. Dinosaurs symbolize both a stage in the development of life on earth as well as the re-imagining of a stage in the development

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16 Ibid, 149.
of human consciousness. Just as dinosaurs gave way to mammals and prehistory gave way to history, so too our minds pass from undifferentiated, unconscious collections of lusts and urges into consciousness—an ordered assemblage of thoughts, beliefs and morals. Dinosaurs do not merely represent specters of a savage past, but come to function as symbols of the very savage desires contained within the mind.

As bridges between the conscious and the unconscious, between the time before memory and memory, dinosaurs have particular symbolic value for children. For many children, boys especially, dinosaurs function as transitional objects—objects that play a key role in D.W. Winnicott’s theory of child development.

Dinosaurs, as an imaginative medium in the hands of children, serve as transitional objects that transcend the traditional objective/subjective dichotomy that we attribute to most conscious experience. Winnicott describes how transitional objects work, serving as “an intermediate area of experiencing, to which inner reality and external life both contribute.” The object – the dinosaur – begins to function as signifier for internal experiences as much as it represents real, tangible history and flesh. Features of the dinosaur-as-transitional-object fit with the paradoxical way in which children engage with dinosaurs themselves: the child assumes control over the object, but the object also exerts a powerful pull that elicits both affection and aggression. The transitional realm is paradoxical, simultaneously subjective and objective – it is “a third area of human living, one neither inside the individual nor outside in the world of shared reality.” The “true” self emerges from the interplay between symbols.

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20 Ibid, 110.
during the transitional stage. In other words, the transitional object mediates the individual and social/cultural surroundings.

The dinosaur constitutes a powerful lens through which children can be gently introduced to basic instructive concepts like growth, power and the natural order – all with the comfortable distance provided by extinction. As Mitchell writes, “…the ritual “lesson” that is recited (that dinosaurs are dead) transforms them into safe monsters who reassure the child that someday she will change places with her parents and become a powerful giant herself.”21 Dinosaurs serve as templates onto which children can superimpose an evolving worldview. Rather than passively accept the didactic pronouncements of their teachers and parents, children can use dinosaurs as a tool for understanding and rehearsing social norms on their own terms, while still capturing the excitement and wonder of “monsters.” Psychiatrist John E. Schowalter writes, “The combination of factors – dinosaurs being big, scary, and real, but at the same time no longer existing – allows contemporary fears to be dealt with in a real and yet unreal framework.”22 Childhood fears about death, loss of control, and growing up can all be safely compartmentalized and resolved using the cognitive buffer dinosaurs provide. Dinosaurs encompass both the authority of reality (they once existed) with the elasticity of imaginative license (our understanding of them is internal). Children can also gain comfort and a sense of stability through play with the dinosaurs as imaginative objects. Jose Luis Sanz writes that for children dinosaurs “act as potential exorcists of childhood fears, having an advantage over other

monsters (e.g., vampires, ghosts), whose nonexistence may be questioned”. The
dinosaur, with all its teeth and fearsome pre-historical rage, can be reduced and
mediated into a comprehensible plaything. For his part, Freud argues that children
project their feelings of affection and anxiety (resulting from the Oedipus complex)
onto animals. A child can be frightened by the animal (identifying it with their father,
Freud contends), affectionate with it (identifying with it personally), and fascinated
and admiring of it (identifying it with the mother).

Childhood is a period of rapid cognitive development, and dinosaurs offer an
important tool through which psychological conflict can be externalized. Bruno
Bettleheim argues that, as children enter the Oedipal period (ages three to seven),
they begin to internalize the conflict they perceive in the chaotic outer world in the
form of contradictory emotions. This is precisely the same age at which children are
most likely to develop a fixation with dinosaurs. Dinosaur-related play can serve as
wish fulfillment in which children are able to reconcile the complex emotions and
strains of childhood. As Bettleheim exclaims, “If we, as adults, must take recourse
to the creation of separate entities to bring some sensible order to our inner
experiences, how much greater is the child’s need for this!” Both Schowalter and
Bettleheim cite the Freudian observation that children often displace aggression

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27 Bettleheim, *The Uses of Enchantment*, 75.
toward their parents onto animals. “The child learns in fantasy how to live in the world of giants, whether through combat or accommodation […],” writes Schowalter of his clinical observations of child play-acting. Dinosaurs are a medium through which the drama and developmental stresses of childhood can be grappled with directly (and safely).

Dinosaurs allow children the opportunity to exercise control over a body of knowledge regarded as entirely legitimate by the adult world. Unlike many of the storybooks, movies, video games and TV shows that make up the typical child’s informational diet, dinosaurs represent a realm of factual knowledge that has value outside of the “fantasy” they are regularly exposed to. “There is a body of scientific knowledge about dinosaurs which can be mastered and for which the child receives praise and is taken seriously, something that is not true for other monsters,” Showalter explains. Children gain not only edification through the possession of such knowledge, but authority and power as well. Mitchell writes compellingly about this process:

> We need to pay attention to that crucial scene of the pedantic first-grader at the breakfast table, showing off her mastery of jargon and correcting her parents’ mistakes. Dinosaurs have the effect of (to use the contemporary jargon) “empowering” children and allowing them to play the role of teacher.

Unlike the play-acting, mimicry and rehearsal that children routinely engage in, the accumulation of dinosaur-related knowledge is already fully “adult” in an important way. As marginalized persons living in a world controlled by seemingly bizarre and

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29 Ibid, 5.
30 Mitchell, The Last Dinosaur Book, 244.
inexplicable forces, children gain an important source of empowerment from dinosaurs.

Dinosaurs are also an important tool for the replication and familiarization of important moral and social structures for children. Most dinosaur stories are built around a familiar protagonist – a baby dinosaur learning about the world, or a mother dinosaur caring for her young. Dinosaurs are often grouped into the friendly, herbivorous, “good” dinosaurs and the cruel, carnivorous “bad” dinosaurs. Hunting and preying on the weak, carnivorous dinosaurs are allegories for the social ills and unacceptable behaviors children are taught to resist and fear. “Good” dinosaurs, who exist in relative harmony with the natural world and lead socially rich lives, are the template against which admirable human conduct is measured. Dinosaurs also exist in a world beset by hazards – precipitous climate change, ruthless predators and an untamed natural landscape present numerous hazards. Witness the heroes of the *Land Before Time* films; small, orphaned, herbivorous dinosaurs who struggle to find their parents and live by the lessons they have been taught. As the world around them does its best to separate and harm them, these young dinosaurs gradually organize a cooperative social order that stresses teamwork and mutual reinforcement, allowing them to reach salvation. By lending a moral weight to dinosaurs’ everyday struggles, they provide lessons in proper behavior, social mores and self-reliance. As the denizens of an unremembered, distant past, dinosaurs represent an ideal (and largely blank) canvas onto which one can project a didactic message for children.

Dinosaurs, then, serve as metaphors of individual development, mediating the interplay of consciousness and unconsciousness. They also serve as symbolic
mediators of the interplay of the individual and the group, between individual consciousness and cultural participation. Dinosaur media replicate and reinforce cultural conditioning. To some extent, presumably, this mediation is conscious. Michael Crichton is probably well aware of the tension between the promise and the threat of science. Much of this indoctrination is also unconscious. It seems less likely that Crichton is aware that, as Mitchell suggests, *Jurassic Park*’s tyrannosaurus rex embodies old “feudal” capitalism and its velociraptors new postmodern capitalism.\(^3\) And it is probably Crichton’s intent, if not his conscious intent, to reinforce the mores of the patriarchy. After all, it is the tyrannosaurus, the lizard king (a female but a king nonetheless), who comes to the rescue of the children in the film’s denouement, and the villains of the piece are unquestionably the parthenogenenic velociraptors who band together like Amazons to hunt their prey. In spite of the film’s plucky heroin, it is difficult not to see *Jurassic Park* as an affirmation of patriarchal order in the face of organized feminism.

The mediation between the individual and society—the transaction between private belief and public action—has traditionally been the province of the church. Christian faith, after all, which forms so much of American culture, is a matter of personal conviction that produces public standards, all guided by a largely unknowable "other." The church provides a moral rubric for existence in the world, a process through which principles, both universal and subjective, can be translated into conduct. Dinosaurs, in their modern context, are, like God, an unknown and unknowable other, both real and imagined, public and private. While they lack the complex cosmology that defines religion itself, they nonetheless suggest a whole

\(^3\) Ibid, 182.
framework of belief—evolution, the passage of time, and the very nature of life. For the American evangelical movement, the mediation of public and private is all-important; in the move from individual conversion to organized community and from that insular community to political force, modern evangelicalism is not just concerned with doctrine, but with society itself and the individual’s place in it. Dinosaurs, in the discourse of evangelical Christianity, represent a system of micro-mediation that functions entirely separately from biblical cosmology; still, the system dinosaurs represent runs parallel to the function of the church. Evangelicals have realized that dinosaurs, rather than a threat to the substance of their beliefs, are a pathway between the individual and the world, not unlike the cosmology of their faith. Dinosaurs, in some reductive way, are a system of belief not all that far removed from the doctrines evangelicals live their lives by – a system that can be used to enrich and expand their faith.
Chapter Two
Enchanted Science, Disenchanted Faith

Following the scientific revolution, accumulations of data and of replicable laws based on that data made the distinction between rational thought and faith increasingly difficult to bridge. While some scientists might continue to point to the mechanistic universe as evidence of a creator, practical science has made the existence of such a creator less and less relevant to ordinary lives in a world dominated by new technologies. By the 20th Century, if not sooner, atheism or abstract deism had become the fashion of most scientists, while religious thought was increasingly compartmentalized, shuffled off to Sunday School. The apotheosis of the hard distinction between faith and science may have been Darwin’s theory of evolution, not because it represented a new triumph of scientific thought, but because, more than any theory since that of the heliocentric universe, it disputed man’s centrality in creation. Darwin’s impact was not merely rational—it involved a profound realignment of the self-perception of humankind.¹

The distinction between scientific and Christian thought remained particularly stark in America, where scientific progress surged with new technologies, while the population as a whole remained as Christian as ever. By the time of the Scopes Trial

in 1925, no dialogue between rationalism and faith, much less resolution, seemed possible.

Ironically, what was lost in this increasingly stark division was the extent to which these now rival modes of thought involved each other. The enchantment that lay at the heart of scientific thought was overlooked, while the rationality that underpinned much of religious thought was similarly ignored. For sixty years following the trial, Biblical literalism more or less went underground, while science found its way increasingly into the classroom and into a proliferation of natural science museums. By the present day, however, this progress to a seemingly irreconcilable separation has reversed itself. To a certain extent, science has begun more and more to hint at an infinite mystery, while proponents of evangelicalism have with remarkable success both drawn on this sense of mystery and wonder and co-opted the rhetoric and methodologies of science.² There is no more vivid example of this strange reconciliation than that of dinosaurs and their uses within the evangelical community. Unlike science, which, even while drawing on a sense of wonder, must uphold the distinction between myth and reality, contemporary evangelicalism has combined the two—and dinosaurs, those creatures that for all of us occupy the space between imagination and reality, between myth and history, have become a vehicle for reconciliation and indoctrination.

Darwin’s natural worldview was governed by the Latin maxim, “natura non

facit saltum” – “nature does not make leaps.”\(^3\) Natural processes are gradual, eons-spanning systems that move almost imperceptibly. Nature never makes a sudden, startling shift of the kind Lamarck famously envisioned with an animal straining to reach the highest boughs of a tree, then to pass along that elongated neck to the next generation. Darwin’s theory of evolution described a world that, while ever in flux, nonetheless moved, like the hour hand of a clock, too slowly for human observation.\(^4\) This aspect of evolution helped confirm speculation that the earth was indeed very old and, moreover, that the existence of the human race was short in relation to the vast scale of geological time. The gradualism of the evolutionary process – countless generations all adapting differently, in an ineluctable progress of minute successions–made an ancient earth seem not only probable and demonstrable, but logical.

As tangible evidence of Darwin’s theory, the strange, massive dinosaurs fossils unearthed in the 19\(^{th}\) century had radical effects on human consciousness. Similar to the ground-shaking theory of the heliocentric cosmos, the discovery of dinosaurs seemed to further erode the centrality of the human species in the span of natural history. The idea that huge, fearsome beasts once held dominion over the earth made humanity’s current tenure seem far more relative and transient. Dinosaurs were not only a testament to the unimaginable span of the earth’s history, but a suggestion of our species’ frailty – was massive extinction on a dinosaur-like scale possible in our time as well? The reality of dinosaurs, as evidenced by their fossil remains, required—for those who chose to accept that reality—a reorientation of perspective on humankind’s place in the natural world. Furthermore, because


Christianity had—as yet—no meaningful discursive space for dinosaurs, the
discovery of their fossilized remains only worked to reinforce the sense that science
and reason were the tools best suited for reaching a transcendent understanding of the
cosmos. Science provided not only an explanation for dinosaurs but had also provided
the dinosaurs themselves, leaving Christianity and its texts hoplessly outmoded.
Dinosaurs for a time gave shape to events far beyond the scope of human memory or
imagination, in much the way that the biblical heroes had once done.

This change fit well within the post-enlightenment division in Western
thinking between *sola scriptura* and *sola natura*—scriptural truth versus natural truth,
religion against science. The study of fossils became in many ways the cornerstone
of evolutionary theory, while dinosaurs, with their fearsome, alien forms,
demonstrated not only that the geological age of the earth was vast indeed but that it
held wonders that no Christian would yet claim to have imagined much less
witnessed. As science developed more sensitive tools for use in paleontology,
techniques such as carbon dating helped to demonstrate that dinosaur fossils were in
fact millennia old. Paleontologists, moving from the field to the laboratory, used the
half-life of decaying isotopes—more unknown and obscurely “scientific”
phenomena—to measure the age of dinosaur fossils with remarkable accuracy. By the
dawn of the twentieth century, dinosaurs and their fossils had become one the most
important tools for the popularization—some would call it indoctrination—of the
natural sciences. Natural history museums, the spaces in which countless children
first encounter the daunting spectacle of dinosaur fossils, were the new temples in
which the revelations of science were handed down.

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5 Ibid, 25.
And above all, as historian Larry A. Witham writes, “the permanent legacy [of natural history museums] is the mainstreaming of evolutionary biology.”\textsuperscript{6} As such these museums, like textbooks that increasingly incorporated both Darwin’s theory and illustrations of the dinosaurs that were evidence for it, were directly at odds with any literalist interpretation of the Bible and the Christian concept of human life. Evolution overthrew the foundational Christian concept that man was created in the image of God – after all, if natural selection were random, gradual and unpredictable, how could God’s image ever be reflected in such a process? Worse yet, the \textit{sola natura} of evolution suggested that, through the random, unpredictable whims of nature, any species could be destroyed. Such an implication would inevitably call into question not only God’s infallibility but His own permanence. The web of empiricism and science on display in museums, meanwhile, was a testament to the internal consistency of reason and deduction. “The allure of a natural history museum is bound up in its quest to show the ‘real thing,’” Witham explains.\textsuperscript{7} Science, on vivid display, appeared to be governed by laws that functioned independently of \textit{sola scriptura}, and dinosaurs reinforced the power and allure of that system of belief.

The triumph of science over faith, however, was neither complete nor immediate. The seminal modern clash of these worldviews arose in the infamous Scopes “Monkey” Trial, the result of a 1925 suit challenging Tennessee’s Butler Act which prohibited the teaching in public schools of any theory that denied biblical creation. The rhetorical clash between defense attorney Charles Darrow and prosecutor William Jennings Bryan, as depicted in the popular play \textit{Inherit the Wind},

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\item Ibid, 181.
\item Ibid, 182.
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has remained a touchstone for modern ideological struggle between evolution and creationism. According to Edward J Larson, the trial “coincided with and arose out of the so-called fundamentalists crisis within American Protestantism, when many mainline denominations…were deeply divided between the so-called modernists, who adapted their traditional beliefs to current scientific thinking, and a new breed of fundamentalists, who clung even tighter to biblical literalism in the face of new ideas.”

Arguments at the trial, widely reported in the media, solidified this doctrinal schism between the literalists and the more accommodating modernists. Bryant's “victory” is often cited as the moment in which Christian fundamentalism began its decades-long withdrawal from the public sphere. In the wake of the suit in 1925, Henry Fairfield Oswald (president of the American Natural History Museum from 1891-1933) invited John Scopes to pose with him in front of the *brontosaurus* fossil at the museum – even then, dinosaurs were already powerful symbols of the defiant evolutionary triumphalism Scopes had come to represent, despite his defeat at trial.

By the time that fundamentalist Christianity began to reconstitute its public identity and reengage with American politics in the 1970s, evolutionary science had long since become a part of mainstream education and the accepted basis of natural biology. Even though the Scopes trial had produced a verdict favorable to the fundamentalist community, little was resolved – the cultural and religious divide it epitomized had only festered and metastasized in the decades since. The trial showcased the seemingly-irreconcilable rhetorical divergence between naturalism and biblical thought, and the lack of dialogue in its wake only cemented those divisions.

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9 Ibid, 114.
For a time following the Scopes trial the division became so stark that Christian Evangelicalism, either by choice or under duress, became a peripheral phenomenon in American culture. At the same time, this stark cultural divide eliminated, without resolving, the centuries-old dialogue between science and faith, a dialogue that rested as much on similarities as on differences. The importance of literalism and rational argument in American Protestantism was forgotten, as was the mythical mode of thought—the sense of wonder and mystery—that propelled much of scientific exploration. Perhaps surprisingly, a new confluence of rationalism and enchantment would emerge as dinosaurs reentered Christian fundamentalist thought in the late 20th century.

In a sense, popular science had never acknowledged the enchantment that endowed fossils with such an enduring allure. The rise of rationalist, scientific thought as a governing schema went on without acknowledging the powerful role that enchantment played, even though the appeal of scientific discovery, as the endless fascination with dinosaurs suggests, was all along largely mythic. The popular interest in natural history museums, then as now, did not lie in a dry, textual recitation of scientific theory, but in the overtones of imaginative fantasy in which the theory was cloaked. Museums, the popularizing engines of science, work to give form and substance to the obtuse machinations of the natural world, providing a tangible link between the theoretical and the visceral.

This link is often overlooked in theoretical interpretations of empiricism’s role in modernity. The “modern period” is traditionally characterized as an era in which
rational hypotheses and the scientific method became the governing philosophical ethos, based on a dominant epistemological system that undergirds our assumptions about the world. This idea is fundamentally linked to the notion of “disenchantment,” the removal of the veil that separates human understanding from the inherent mystery of our existence. Disenchantment is the resultant effect when an attempt is made to quantify and explain the unknown, when the obscured and ill-lit is made visible.

Science relies on the observable and the testable to legitimate the architecture of its beliefs; gravity exists because we can demonstrate that mass exerts an inexorable pull on its surroundings; copper turns green because it oxidizes when exposed to the atmosphere. Explanation, as it is reasoned, is the antithesis of enchantment, and Darwin, evolution and dinosaurs all seem to be reminders of this drab “scientific” reality. The world that science attempts to explain is one defined by provable fact and largely-incontrovertible law. From a purely rational perspective, after all, ionic charges, tectonic shifts, and neurotransmitter functionality leave little room to marvel at the miraculous nature of life on Earth. Science and modernity, according to this view, exist not just to solve mysteries but to relegate the whole concept of mystery to the past. Max Weber was perhaps the most famous proponent of the idea that modernity promoted disenchantment. As historian Michael Saler writes,

Max Weber famously discussed the 'disenchantment of the world' in a 1917 lecture, by which he meant the loss of the overarching meanings, animistic connections, magical expectations, and spiritual explanations that had characterized the traditional world, as a result of the ongoing process of rationalization, secularization, and bureaucratization... Enchantment was associated not only with transcendent meaning and purpose, but also with wonder and surprise; there were the qualities that modernity, with its emphasis on inviolable natural laws, threatened to
Weber conceived of modernity as ushering in an era in which the ordered mechanization of thought eliminated the space previously occupied by the fantastic and unformulated. It is highly doubtful, however, in spite of the disenchanted aspects of modernist consciousness, that myth and mystery have been eliminated from modern thought. Enchantment survives—but, as might expect of rational minds, it is goes unacknowledged.

While it is highly problematic to contemplate the “meaning” of religious experience, it seems reasonable to assert that that the transcendence mystery of the unknown is one step removed from religious practice itself. This, of course, sets up the traditional dichotomy between religion and secular science, between “rationality” and “faith.” Since the Enlightenment, the thinking goes, Western society has listed farther and farther away from religion as its organizing ethos, and toward the scientific method. As such, religion, which is governed by a transcendent enchantment of its own, has fallen out of favor as rationality took hold of society. And yet, secular science is suffused with its own quality of enchantment. As Michael Aribib and Mary Hesse succinctly state, science has never been bereft of “magic,”

Scientific models are a prototype…for imaginative creations or schemas…Symbolic worlds all share with scientific models the function of describing and redescribing the world, and for all of them. It is inappropriate to ask for literal truth as direct correspondence with the world…We do not suddenly put on a different hat with regard to ‘truth’ when we speak of the good or God from what we wear for natural science.11

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Science evokes and re-values its own discoveries by cloaking them in the language of wonder and the unknown. While it would be erroneous to assume there is some cohesive purposeful will behind “science” itself as a cultural practice, science retains its cultural relevance because it appeals to such a basic human interest. We remain engaged and invested in science because it holds forth the promise of further exploration and extrapolation of the cavernous unknown that stretches out before us. As such, modernity is not marked by its lack of “overarching meanings, animistic connections, magical expectations,” but rather by the transformation and reinterpretation of those phenomena. The search for truth, be it with God or with physics, necessarily begins with mystery. And since neither God nor physics shows any signs as yet of fading out of relevance, it is safe to assume that the mystery has yet to be solved.

The latent wonder that suffuses modernity can be best described using Michael Saler’s conception of “ironic imagination,” whereby the mystery and majesty of imagination are experienced reflexively, imbuing the modern world with a unique quality of wonder. “Modern enchantment might be defined as one that enchants and disenchants simultaneously: one that delights but does not delude.”\[^{12}\] In other words, modernity exists with the knowledge that its governing principles are equally subsumed by enchantment, but an enchantment that ironically reasserts its rationality and measurability. Ironic imagination is a space in which fantasy never indulges the temptation to obfuscate or dissemble, but instead where knowledge and exploration are informed by the enchantment they evoke. The process is ironic in that it engages the same imaginative faculties of fantasy, but justifies those faculties with the hard,

factual sheen of rational thought.

It is this “ironic” aspect of modern fantastic thought that explains the clear distinction we perceive between the pervasive rationality of the present, and the apparent superstitious, unenlightened thought of antiquity. Mitchell attempts to explain this divergence when he notes that, “…the contrast between science and religion is undermined by the tendency of science to play the role of a modern, secular religion, popularly misconceived as the final arbiter or truth and reality in all matters.”¹³ Science may appear to arrive at “truth” in an unimpeachable, rational process – but it gets there with all the concomitant enchantment of pre-scientific belief. Science may not be the “religion” of modernity, but Mitchell is apt in pointing out that we often regard science as the ultimate guarantor of fact, much as the Church functioned in pre-Enlightenment Europe. So, while modernity is defined by being “wholly disenchanted,” it nonetheless traffics in the same qualities of transcendent, logic-defying mystery and wonder that is equally essential to religious belief.

Examining the discursive elements of scientific imagination, James W. Jones writes that, “Even the most rule-governed activities, such as the experimental method, depend on such metaphors, which ‘unite reason and imagination.’”¹⁴ The hypothesis itself – the foundation of empirical thought – is essentially a “leap of faith,” an assertion backed by little other than inference and intuition. While hypotheses can be proven with varying degrees of certainty, the central process is one that relies on imagination to reach a given conclusion.

Dinosaurs are a compelling example of the intersection of “hard,” rational science and enchantment. They are firmly grounded in the realm of science; the products of paleontology, dinosaurs are nearly inseparable from evolutionary theory and the Earth’s ancient history. The growth and maturation of the study of dinosaurs has drawn on all aspects of science, employing inference and deduction to understand how these animals might have lived. Mitchell employs the term “scientism” to describe the belief system that reinforces scientific truth, writing, “There is no question that an essential part of the taboo (in the sense of aura or magic) of the dinosaur resides in its status as scientific object, or more specifically, in its role as a monument of ‘Big Science’, and even more aptly to what might be called ‘pure scientism.’”

15 Hinting at the unique status of dinosaurs, Mitchell notes that their scientific nature only promotes their perception as “magic.” Dinosaurs are also a powerful reminder of mortality and the volatility of the natural world; these dominant species were wiped off eons ago in a geological instant, victims of nature’s implacable law of survival. Their distant descendants—from birds to crocodiles—still serve as a powerful link to the distant but actual past when dinosaurs ruled the Earth.

Alternately, even for scientists, dinosaurs are also deep repositories of fantastic enchantment, fearsome dragon-like beasts that once held dominion over the Earth. Because they existed in a distant past and their physical remains consist only of imprints of their bones, engagement with dinosaurs—even on a scientific level—requires imagination. Scientists, no less other humans, lack real earthly referents for what dinosaurs might have looked like, making dinosaurs an especially fertile ground for individual imagining. Their presence in an unremembered past means they occupy

the nebulous space between fantasy and reality – beasts substantiated by science but
given life by the mind. Dinosaurs are associated with the complexity and majesty of
nature; as parts of a vanished ecosystem, they played an important role on an earth
that bears little resemblance to our own.

Just as scientific thought has mythic inspiration, Christian thought, even as it
regards the deepest mysteries, can manifest a turn to the empirical. The return to
empirical argument on the part of creation scientists is as much a matter of tradition
as it is a response to the cultural turn to science. To burnish its image in the modern
marketplace of ideas, creation science employs the language and empirical sheen of
secular science to advertise its legitimacy and rational authenticity. The majesty and
mystery of God’s infinite power and wisdom is channeled and reflected in science’s
exploration of the perfectly-intricate gestalt of the natural world. Science is often
described as the excavation of the unknown, an effort to probe the limitless
complexity of the world around us. In turn, Christianity is complex system of belief
used to explicate and unearth the architecture of God’s plan. Both rest on the
assumption that the elemental forces driving these worldviews are beyond the scope
of full comprehension; they will forever remain partially obscured from our eyes. In
essence, both represent an inquiry into the unknowable.

It is the intersection of secular science with biblical theology that has, in some
fashion, enriched and broadened the appeal of both. Creation science self-consciously

16 Creation scientists employ empirical processes and principles in an attempt to disprove secular
scientific conceits (such as biological evolution and the geological evolution of a 3.5 billion year-old
earth) and to provide a scientific argument for a biblical creation as described in the Book of Genesis.
While they adopt the rhetoric and evidentiary technique of empirical science, most creation scientists
openly disavow the scientific method itself, acknowledging that their starting point is the biblical text
rather than physical or experimental evidence.
adopts the rational, hypothetical structure of secular science, just as popular secular science employs the language of fantasy and wonder to illustrate the infinitely-complex order of the natural world. Just as creation scientists take issue with the carbon-dating techniques for fossils, secular researchers help us to marvel at the logic-defying maw of a black hole. Evolution itself is often cloaked in terms that evoke the hidden, but purposeful intent of a powerful natural process – while the mechanics of natural selection may be “random,” their result is intricate, balanced web of life. Indeed, while evolution is a “rational” scientific process, even creation scientists are able to co-opt the sense of wonder it produces, questioning how such delicate symmetry could ever be produced through a random, meandering process.

For many of the religiously-inclined scholars and scientists who have followed in the footsteps of Darwin, the object has been to refine evolutionary theory to explore the functionality that underpins God's vast creation, but never to undermine the theory itself.

By assuming the methods and language of science to legitimize their own beliefs and to demystify dinosaurs, fundamentalist Christians are able to turn science back upon itself. Perhaps the principle paradox of creation science is that, while it is firmly grounded in the cosmology of evangelical Christianity, it is nonetheless totally conversant in the language of rational scientific thought. Rather than rely on the inerrancy of scripture alone, creation science employs the structure and logic of empiricism to justify its claims. While creationism carries with it the basic assumption that we inhabit the world described in the bible, it clothes those forgone conclusions in a secondary layer of scientific thought to support their inherent,
fundamental veracity. Through the prism of science, creationism is able to present itself with the glow of secular legitimacy, all while explicated a cohesive faith-based worldview. Creationism accommodates itself to the cultural realities of the “sanctification” of science by “presenting itself as a scientific product,” as anthropologist Christopher P. Toumey writes.17

The fusion of scientific processes with biblical exegesis represents a profound shift in the history of modern American evangelicalism. The media frenzy (and the much maligned naiveté of the plaintiffs) in the Scopes trial marked the beginning of fifty years of self-imposed exile from the cultural mainstream for evangelical Christianity. This disengagement and turning inward represented a withdrawal from the marketplace of ideas that had once been richly informed by explicitly sectarian evangelical thought and influence.18 Evangelical Christianity’s reengagement with the secular realm of politics and broader social concerns was a decades-long process that came to the fore of national affairs in the 1970s. Richard Nixon’s 1968 electoral platform of appealing to the American “silent majority” made an overture to disenchanted evangelicals deeply disturbed by the social unrest of the 1960s, while Jimmy Carter’s appeal as the nation’s first “born-again” Presidential candidate lured evangelicals to the polls in 1976. Ronald Reagan’s effort to court conservative Christians in the 1980 election firmly cemented their status as a powerful constituency of the Republican Party. While Presidential elections are hardly the only barometer of evangelical reengagement with secular society, the final quarter of the

17 Christopher P. Toumey, God’s Own Scientists: Creationists in a Secular World (New Brunswick: Rutgers University Press, 1994), 258.
20th century saw many evangelicals end their long-held belief in abstention from the secular – and evidently decaying – values of the mainstream culture.¹⁹

One of the central intellectual developments in the reengagement of evangelical Christianity is the consensus, both old and new, that science is not anathema to biblical scholarship and belief. The assumption that science speaks to different fundamental ideas than faith is challenged by creation science, which works to fuse the indelible truths of the bible with the immutable laws of science. This attitude does not regard science as an inherently corrupting, secularizing force, but rather as a symbolic architecture in which any belief system can be couched: “The brilliant innovation of modern creationism is that it refuses to accept the premise that conservative evangelical Protestantism must be at odds with modern scientific thought.”²⁰ This understanding of science, although it harks back to the Christian task of reconciling faith and reason, is profoundly postmodern; creationists employ science in a fashion that compartmentalizes and reorients basic concepts of empiricism. By divorcing science’s means (hypotheses, rationality and evidentiary proof) from its conclusions (evolution and Earth’s billion-year history) creationists are able to freely reinterpret and redirect science’s basic processes toward their own ends. Rather than a belief system unto itself, science merely becomes an epistemological lens through any worldview can be assessed and understood.

Creation science repositions science as the answer to questions of “how” rather than questions of “why” where the essential origins of existence are concerned. Science is

¹⁹ Although tracing the reentry of evangelical precepts and the reengagement of the evangelical community is the secular realm is beyond the scope of this analysis, it is sufficient to note that the advent and subsequent maturation of creation science is still taking place, and its identity and cosmology are still... evolving.

²⁰ Toumey, God’s Own Scientists, 50.
able to reflect the bible, to “[capture] truth just as the Gospel expressed God’s truth.”

In the hands of creation scientists and their evangelical proponents, secular science is more than a system of thought – it is a mutually reinforcing medium that further demonstrates biblical inerrancy. It is an increasingly prominent component in a constellation of beliefs, one that provides stability and resonance to the biblical text in a modern setting: as Toumey writes, “…creationism as a system of cultural meanings about both mortality and science that helps fundamentalist Christians make sense of the realities, anxieties, changes, and uncertainties of life in the United States in the 20th Century.” By incorporating the framework of science and empirical thought and by applying it to the template of evangelical Christianity, creation science becomes an extension of religious belief, rather than an insular world unto itself. In other words, science becomes an aspect of biblical belief, rather than a competing force. Again, this shift is not entirely new. Heather Hendershot writes that, “…science was the best means of revealing the Gospel, because Christianity was understood as a logical, scientific belief system.” Science not only reveals the truth of the Bible, creationism argues, but the Bible is actually best explained using science. The pioneering Christian filmmakers at the Moody Bible Institute (MIS) provided a tidy summation of this logic in 1961, writing that salvation is an “experiment [that] has been performed many times, and has repeatedly given results which are as convincing in their area as the results of experiments in physics of

21 Hendershot, Shaking the World for Jesus, 151.
22 Toumey, God’s Own Scientists, 6.
23 Hendershot, Shaking the World for Jesus, 152.
psychology…” This assertion posits salvation as something akin to a scientific hypothesis – a theory that can be proven through repeatable experimentation that consistently produces verifiable, replicable results. The conversion of individuals into the Christian faith continually produces the same outcome time and again, lending religious epiphany the authority of a fundamental law in the “science” of Christian faith.

Creation science is not, however, merely the dispassionate application of empirical principles to the voluminous biblical text and traditions, but a profound subversion of scientific thought as well. Although a sense of myth and wonder may drive the inquiries of secular science, the two are not reconciled; ultimately, science retains its customary, cool detachment. In creation science, on the other hand, the two are synthesized. Secular science understands the modern universe to be the result of the interplay of basic, immutable principles: gravity, entropy, relativity, evolution, and so forth. Even quantum mechanics, with its destabilizing revelations regarding the role of chance, begins and ends with mathematical analysis. Creationism sees all earthly processes as the product of a divine will, guiding and shaping all events in concordance with a plan and purpose. As such, creation science is inherently teleological, attempting to illustrate the endless reach and breadth of God’s will. The “discovery” derived from creationism is simply the reaffirmation of a priori religious precepts. Nothing could be further from the scientific method, in which proof is second to hypothesis. Ultimately, the totality of the creation science begins with proof in the form of biblical text. Hypotheses derive from what is already “known” and serve the purpose of matching scientific evidence to revealed truth.

24 Ibid, 155.
Much of creation science is employed within an implicitly political context, presented to undermine the assumptions of the allegedly malicious social agenda of “secular humanism.” Just as creation science serves the avowed aim of proving the correctness of scripture, secular science is seen continually working to taint and demonize religious thought in pursuit of a “godless” marketplace of ideas. In this way, creation science represents a superficial simulacrum of secular scientific thought—it employs the symbology and vocabulary of science toward ends that can brook no debate or vagueness. Creation science exists to validate global, universal claims that cannot be expressed empirically—the tenets of an unquestioning faith: in “a ‘debate’ between evolution and creation, [it] is clear that creation will win, and there is no room for compromise.”

Furthermore, creation science is also consciously constructed in opposition to a popular culture that is seen as corrupt and misguided. It presupposes a moral order as much as physical, corporeal order in its teachings. Ethics, while often a subject of scientific debate, is ultimately tangential to the processes of pure science—thetheorems are valid regardless of their ethical resonance or practical applications.

Creation science is deeply and powerfully wedded to a biblical moral order that guides its conclusions and expression. As such, creation science is subversive to the basic tenets and stated purpose of the post-Enlightenment scientific project; rather than delineate the contours of unknown elemental forces, creation science works to add credibility to ideas and beliefs known in their entirety since the dawn of time. Marcus Ross, a creation scientist who wrote his doctoral dissertation on the evolution of the mosasaur, epitomizes the difference between secular science and creation

\[^{25}\text{Ibid, 175.}\]
science in regards to the reconciliation of faith and reason. Many secular scientists objected to Ross’s thesis precisely because it adhered to the tenets of conventional science. For Ross there was no conflict between his faith and the data he discussed. As he sees it, he simply shifted paradigms—something secular scientists are not free to do. Ross has gone on to teach at Jerry Falwell’s Liberty University, where he is remarkably successful at persuading his students that humans and dinosaurs coexisted for a time. His approach is typical of creation science, in that it begins with Biblical text and proceeds from proof to data to hypothesis. As Ross says, “We have nothing to fear from data. If we’re afraid, it means we don’t trust God’s word.”

Ross is a representative of the most recent trend in creation science, a field that has become known as “young-earth creationism.” In an attempt to provide a forum for the empirical exploration of Christian doctrine, Henry M. Morris founded the Institute for Creation Research in 1972 to challenge evolution science and develop and promote empirical evidence to support young-earth creationism, the theory that the earth was indeed created over a span of six days as laid out in the book of Genesis. (“Institutes” and “foundations” are words in the normative lexicon through which scientific research finds funding and legitimacy – attaching such labels to creationist enterprises represents another canny aspect of the rhetorical re-appropriation central to creation science.) Young-earth creationism revolves around three “actual” events: the creation of the earth, the fall of man—actual because it

27 Toumey, God’s Own Scientists, 2.
brought actual death to God’s creation—and the great flood. Creation scientists tend to focus principally on the geology of the flood because the deterioration of an earthly paradise due to the fall is harder to prove; “physical” evidence of the flood is far easier both to find and to demonstrate.28 Astrophysicist Hugh Ross uses quantum mechanics to reconcile an ancient earth with a literal, inerrant Bible: he does so using Psalms 90:4 (“with God one day is as a thousand years”), arguing that time from the perspective of the cosmos is shorter than the “human” view of elapsed time, according to the “relativistic time dilation effect”.29 Although in conflict, both the “Rossist” school and the flood geology of the young-earth creationists attempt to prop up biblical truth with the theoretical footwork of hard science.

Successful as both astrophysicists and flood geologists have been, their work is largely unknown to the public; in the field of creation science, they represent the rarified extreme of academic and even post-graduate study. The popularizing of creation science, like the popularizing of evolutionary theory, has come about in large part through the fossil record and, in particular, the universal appeal of dinosaurs, especially to children, those who are most directly exposed to “mainstream” biological science. The work done by Ken Ham through his various enterprises, including Answers in Genesis (AIG) ministries and the newly-completed Creation Museum, represents an attempt to translate creation science into something attractive and palpable for a broad audience. His work is a logical step following the establishment of institutionalized creation science; namely, an effort to provide for children an alternative to evolutionary science. Dinosaurs, often referred to by AIG as

28 Witham, Where Darwin Meets the Bible, 53.
29 Ibid, 194.
“missionary lizards,” are the tools best suited for evangelizing creation science, rather than more esoteric options such as flood geology or “Rossism.” Nor is the usefulness of dinosaurs is limited to their archetypal simplicity. Creation physicist and AIG member Donald DeYoung explains, “Dinosaur design shows God’s glory instead of random evolutionary change. The dinosaurs reveal complex behavior, temperature regulation, unending variety in their appearance, and parental instinct. All scientific research is actually creation research, including dinosaur studies.”

Answers in Genesis ministry’s mission statement describes the organization as, “a catalyst to bring reformation by reclaiming the foundations of our faith which are found in the Bible, from the very first verse.” Using the text of the Bible itself as its basis, AIG Ministry and other likeminded organizations exist to propagate the idea that Christianity needs to be reclaimed by a return to the faith’s lost foundations and essential truths. Upholding the literal authority of creationism is necessary because any compromise on the “actuality” of Genesis would open “a dangerous door regarding how the culture and church view biblical authority.” AIG’s “statement of faith” makes clear that while creation science is important, it is rightfully secondary to the gospel of Jesus; creation science must always remain an outgrowth of the Bible itself. In his essay, “Evangelism for the new millennium,” Ham writes that:

...in explaining why Jesus died, Paul goes to the book of Genesis, to the account of Adam and the Fall. In other words, one cannot really understand the good news in the New Testament—Jesus’ death and resurrection and thus payment for sin—until one understands the bad news in Genesis of the Fall of man, and thus the origin of sin and its penalty of death...Understanding

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the foundational aspects of the gospel is a vital key to unlocking a powerful method of evangelism to reach the world for Christ.  

For Ham and his adherents, the best tool for reaching the broadest audience with his evangelical message is the Bible itself. It is the teaching contained explicitly therein that he sees as his greatest asset. Ham’s assault on evolution is not a repudiation of rationalism itself – there is ample rationalism in Christian doctrine – but an emphasis on a system of belief that is transcendentally and unfailingly reliable. Ham’s emphasis on the Bible’s unimpeachable authority is not a metaphorical or symbolic assertion – it is a belief that the Bible represents a totality of truth. It seems clear Ham’s efforts are resonating with the public; $20 million of the $27 million used to build AIG’s Creation Museum in northern Kentucky came from private donations. And again, it seems to be dinosaurs that provide the personal touch that leads not only to an rejection of evolutionary theory but an acceptance of Christ. In one testimony, Ham follower Art Wanuch explains how dinosaurs not only helped reconcile science and scripture, but also brought him closer to God:

I was caught with my arms spread as far apart as I could get them with ‘Evolutionary Science’ in one hand, teaching that the earth and dinosaurs were millions of years old, and in the other hand was the Bible with a God I could not reconcile into that timeframe. No one had the answers. So I had to choose one or the other; both stories could not fit into one hand, therefore, both could not possibly be true. I could not have blind faith. I would always doubt the reality of God—the gap was too large…Then a few years ago God took me to a talk about dinosaurs. There in 90 minutes, a fellow by the name of Mr. Ken Ham took “Evolutionary Science” and “The Bible,” and threw evolution and the millions of years out the door. Then he followed that up by taking the dinosaurs and weaving them into a biblical timeframe of thousands of years in a way that made remarkable sense. God’s Word was true after all! God had shown me “Creation Science.” Creation science made God real for me and placed my hopeless hope into the road of saving faith. That night when I walked into the door, Joan

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could not believe the change that had taken place in me. I was flying ten-feet high because “GOD WAS REAL.” Our lives have never been the same since.\textsuperscript{33} The experience of individual conversion and its relation to creation science is not accidental. In refuting secular science, creation science reaffirms not just a set of biblical facts but a human stance that evolution was crucial to weakening: humankind’s centrality and importance in the cosmos. Science places humans and all other life-forms in a relative continuum of history, ecological flux and sheer chance. Creation science reintroduces a fixed order in which humans play a fundamental and enduring role in the history of the universe. In a way, creation science represents the cosmological re-empowerment of humanity on a grand scale. As Wanuch illustrates, this process takes place one individual at a time. The conversion experience and the tenets of creation science reaffirm, respectively, the importance of the individual and the importance of humankind.

Perhaps even more than secular science, creation science has found its way into a vast array of children’s media, from literature to Ham’s own Creation Museum. Here, too, the use of dinosaurs is ubiquitous. As in academic creation science, the creationist critique of evolution in children’s media adopts a remarkably rational, empirical perspective in articulating its argument; in effect, once again, science’s own language is used to refute science’s conclusions. Part of this approach lies in the creation of an aesthetic that conveys the authority and glamour of popular science. The \textit{Creation Adventure Team: Jurassic Ark} and \textit{The X-Nilo Show} videos are a hyper-

active barrage of whizzing gadgets and eye-popping special effects. Dinosaurs of Eden frames its exploration of dinosaur history as part of a futuristic time travel adventure, with its young protagonists donning high-tech suits and entering a giant portal heavily reminiscent of the science fiction film Stargate. In a more substantive sense, much creationist dinosaur literature takes issue with the lack of direct, observable evidence of dinosaurs’ existence many millions of years ago: “Were you there?” is the common challenge posed to scientists and authority figures in the realm of evolutionary theory. Instead, authors pit the alleged lack of evolutionary proof against the inalienable “fact” of the Bible: “We have a written record of the history of the universe, past, present, and future from someone who sees and knows EVERYTHING!”, writes Ham. Stacked against the unquestionable infallibility of the scriptures, evolution (and the secular scientific enterprise more generally) is portrayed as little more than a flimsy sham given weight only by militant, society-wide indoctrination. Creation Adventure Team: A Jurassic Ark Mystery even goes so far as to explain the basic facets of a scientific theory (an observable process that can replicated without divergent results) to refute the idea that evolution is truly demonstrable science. Ham, writing in Creation Magazine about preparing Christian students for encounters with secular, evolutionist teachers, explains how, “…when I learned to teach my students how we interpret facts, and how interpretations are based on our presuppositions, then when the other teacher tried to reinterpret the facts, the students would challenge the teacher’s basic

34 See Appendix, Figures E1 and G1.
35 Ken Ham, Dinosaurs of Eden: Tracing the Mystery Through History (Green Forest: Master Books 2001). See Appendix, Figures A2 and A5.
36 Ibid, 41.
37 Ibid, 6.
assumptions…What was happening was that I had learned to teach the students how
to think rather than just what to think.”\(^{38}\) This is an especially canny mode of dissent
because it furthers empowers children as arbiters of knowledge; truth-tellers defying a
wrong-headed but still hegemonic culture. Through creationist dinosaur literature,
children are shown how to challenge evolutionary theory on its own terms—fighting
fire with fire, as it were.

Perhaps one the most powerful techniques in Fundamentalist children’s
dinosaur tracts is the framing of creationism as a vast “mystery” still in the process of
being solved. It is here that the mythic and empirical aspects of science are most
effectively united and brought to bear on the minds of children. No similar synthesis
could possibly finds its way into even the most basic secular scientific texts aimed at
children. One need look no further than the titles of “The Great Dinosaur Mystery and
the Bible” or “Dinosaurs of Eden: Tracing the Mystery Through History” to be
reminded of the fact that, for young readers, creation science and dinosaurs are
thrilling puzzles that they, no less than adults, are privy to. Many books feature
illustrations that show dinosaurs as part of the landscape in seminal moments of
biblical history, from Adam and Eve sharing the Garden of Eden with an Iguanodon
to a pair of Diplodocuses boarding Noah’s Ark. These books and videos work to
create the impression that an entire, heretofore hidden history of the world is being
unearthed before our eyes. Dinosaurs’ role in recent history has merely been
concealed, these media suggest, a ringing historical truth shrouded in the mists of
time. Mythical and folkloric references to “dragons” and “serpents” from cultures
around the world are raised as credible evidence of dinosaurs’ co-existence with

humans in a bygone era.⁴⁹ Creation Adventure Team: A Jurassic Ark Mystery even
points out that word “dinosaur” did not exist until the 19th century, suggesting that the
“dragons” of previous eras may actually have referred to dinosaurs. These “clues” are
strung together to create the electrifying impression that dinosaurs, until very
recently, lived among us – our historical hindsight (and biblical exegesis) has simply
been too myopic to recognize it until now.⁴⁰

In the end, fundamentally, creation science in its use of dinosaurs represents a
return to mystery and wonder. In this respect, it resolves the tension which secular
science is obliged to ignore. Then, too, when it comes to a sense of wonder that is
unattached to science and the exploration of the natural world, creationism and
Christianity are uniquely well-placed to engage the public imagination. After all, a
sense of mystery and myth, far more than empiricism, has been the traditional
purview of the church. Dinosaurs, in their mythic aspects, serve a number of cultural
ends, but few are better served than contemporary evangelical Christianity.

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³⁹ Paul S. Taylor, The Great Dinosaur Mystery and the Bible (Colorado Springs: Cook
Communications Ministries 1987), 36.
⁴⁰ The Creation Adventure Team: A Jurassic Ark Mystery. dir. Cathy Henderson, DVD (Answers in
Chapter Three
Barney Meets Behemoth

Natural history museums, despite their primary purpose as sanctuaries for scientific artifacts, draw significant revenues from the sale of scientifically irrelevant dinosaur products in their gift shops. Dinosaurs have an inedible and sometimes mystifying hold on the American popular imagination—one that frequently gives rise to commercial fetishism. From Flintstones’ children’s vitamins to the Sinclair Oil logo, dinosaur imagery and iconography is powerful enough to make these paleontological curiosities useful tools in marketing as well as education. Dinosaurs are no longer primarily associated solely with prehistory, no matter what the context into which they are placed. The grip that dinosaurs maintain on the popular imagination is that of myth, and like all myths, the myth of dinosaurs is over-determined and serves multiple ends.

Dinosaurs hold such an enduring appeal in part because they play on elemental aspects of the human experience. Their embodiment of the primal, atavistic, and repressed— the id, in Freudian terms – both fascinates and terrifies us. Such fears are especially pronounced in children, who have yet to develop the emotional mechanisms to deal with the force of their own urges and emotions. At the same time, however, dinosaurs are also symbolically safe: remote and isolated in the
distant past, they are both “real” and unable to harm us.\footnote{Stephen Jay Gould, \textit{Dinosaur in a Haystack} (New York: Harmony Books, 1995), 223.} As monsters as any figment of the imagination and yet substantiated by secular science, dinosaurs are unique in metaphorical agility, simultaneously the objects of fantastical and rational contemplation.

By virtue of their enduring, mythic allure, dinosaurs are versatile cultural tools. Dinosaurs impart lessons rich in both imaginative and scientific content, and as such, they are also instruments through which children are effectively socialized into particular ways of thinking about the world around them. Modern media and educational pedagogy—the children’s literature, the films, television, and video games that provide the calories in children’s media diets—take full advantage of the fascination that dinosaurs draw out in young people. From public educational programming (PBS’ \textit{Barney and Friends}) to network sitcoms (ABC’s \textit{Dinosaurs}) to big-budget feature film blockbusters (Universal’s \textit{Jurassic Park}), dinosaurs are ubiquitous element of our modern, media-saturated culture.

Perhaps the most notable appearances of dinosaurs in recent mass media production takes place in the enormously successful film \textit{Night at the Museum} (2006). The film features a massive Tyrannosaurus Rex skeleton that springs to life at night in New York’s American Museum of Natural History. The dinosaur first appears as a fearsome beast, only to be revealed as a playful, dog-like scamp, more interested playing fetch than catching prey. The role reversal illustrates the enthralling combination of fear and personal identification that dinosaurs elicit in children. The T-Rex in \textit{Night at the Museum} is both alive and dead at the same time, occupying that strange space between fossilization and vibrant, ambulatory life in the way that only a
dinosaur can. Not only was the Tyrannosaurus Rex fossil a prominent part of the film and its accompanying advertising campaign, but the film’s setting in a museum implicitly reinforced the dinosaur’s role within the evolutionary narrative (a narrative which museums play a large part in disseminating and legitimating). In all their various manifestations throughout popular culture, dinosaurs tend to carry with them the valence of evolutionary history. That Night at the Museum’s T-Rex behaves like a modern-day animal – a retriever – may serve to reinforce the idea that extinct species were subject to evolutionary forces and may have evolved characteristics that we recognize in our world today.

The dinosaur myth resonates with children in part because the cultural apparatus is so adept in foisting dinosaur imagery on them. To a degree, the myth of dinosaurs as a popular tool for marketing to children is self-perpetuating. W.J.T. Mitchell understands “dinomania,” or active engagement with the dinosaur myth, almost as a rite of passage, an “initiation ritual” in modern American childhood. He hypothesizes that a child’s fascination with dinosaurs is a “part of a complex cultural ritual constructed by the whole ensemble of popular media images and pedagogy that influences the child’s experience.”

Dinosaurs are frequently portrayed not only as safe and suitable subjects for childhood consumption but as reflections of human society and social norms. Unlike the dinosaurs of monster movies, dinosaurs in children’s media are almost always anthropomorphized, as more “us” than “them” from the child’s perspective. The otherness of dinosaurs is muted and shifted to reflect a range of interpersonal relations with which children can identify. Even in

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“lost world” fantasies (such as James Gurney’s popular *Dinotopia* book series),
dinosaurs and man always coexist peacefully.\(^3\) In these alternate universes, humans
are typically placed above dinosaurs in the hierarchical social structure – think of
Fred and Wilma’s dog-like pet “Dino” in the popular Hanna-Barbera cartoon *The
Flintstones*. Dinosaurs are consistently depicted in a fashion that makes intuitive
sense to young minds, and dinosaur media is well adapted for consumption by
children.

It is dinosaurs’ usefulness as pedagogical tool that has given America one of
its most enduring and well-known figures, Barney, the “dinosaur sensation.” *Barney
and Friends*, headlining a stuffed purple T-Rex who “comes to life” in the
imaginations of his child playmates, debuted on Public Broadcasting Service (PBS) in
1992 and quickly became a commercial and cultural touchstone, spawning toys,
games, clothes, movies, traveling stage shows and more. John O’Neill writes of
Barney, “Here pedagogy has been reduced to dinagogy...”\(^4\) Barney is characterized by
a certain quality of convenience, coming to life whenever one of his young friends is
having a dilemma and teaching children basic moral lessons through song and dance
in episodes titled “Sharing is Caring,” “Our Earth, Our Home,” and “Playing it Safe.”
Barney seems somehow always to be aware of the events that precede his appearance,
even though his actual presence is seemingly intermittent and unpredictable. A giggly
and relentlessly jovial presence, Barney is utterly non-predatory representation of T-Rex, a stuffed animal that springs to life periodically, with no real dinosaur-like
attributes beyond his form. The “dinosaur sensation” is a dinosaur only in name. The

fact that children alone can see him or interact with him both highlights his liminal otherworldliness and gives him a fetishistic exclusivity. As they can with T-Rex in *Night at the Museum*, children can enjoy the excitement-inducing valence of dinosaur fraternization while experiencing none of the threat and menace associated with Barney’s non-imaginary brethren.

Often credited with initiating a new genre of children’s media directed exclusively at a preschool-age audience, the creators of *Barney and Friends* unabashedly geared their program toward its target audience—adults tend to loathe the show. The pedagogical aims of Barney’s predecessor, *Sesame Street*, were undoubtedly directed at a similar demographic but included parents as well. The producers of *Barney and Friends* had no interest in crafting the show to appeal to adults: it lacked entirely the wit and satirical panache of *Sesame Street*, and its pace and tone are ill-suited for adult audiences. Like the more recent *Blue’s Clues*, Barney appeals for the attention of its audience and its audience alone, with no ironic shading given to the moralistic content it presents. As noted, much of children’s fascination with dinosaurs arises from identification with the creatures themselves. In this sense Barney is ideal because he is reactive, a pure projection, a comforting presence ready to adapt and respond to his friends’ needs and fears. He is a “shapeless, toothless dino-security blanket…who will be whatever [children] want him to be.”

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The lessons Barney imparts seem fairly innocuous and bland, ranging from the importance of friendship to the virtues of patience. Nevertheless, the program subliminally imports and reinforces cultural standards, not all of which are benign. *Barney and Friends* also serves to reinforce gender norms and other societal “lessons” for its children viewers. Mitchell writes of how, “Some of these lessons are ones we probably would just as soon they didn’t learn—the ‘naturalness’ of being a voracious consumer, of being an aggressive predator or passive victim, a bully or a sissy.” The notion of a lesson, in this case, is not always to encourage or impart moral behavior, but to adjust children to prevailing social norms that will face and be forced to adapt to throughout life. Such subliminal conditioning, even more than Barney’s vapid, childish patter, may account for the visceral reaction many childhood fans have against Barney once they reach a given age. One they slip outside of its target demographic, children may deem themselves “too old” for Barney’s simplistic adventures and too sophisticated for its cultural conditioning.

One of the most common tropes in children’s dinosaur media is the depiction of dinosaurs as children in a world that misunderstands them. Analyzing “dinagogy,” John O’Neill argues that, “The central feature is that the historical family—the truly endangered species—is naturalized by assigning the role of the missing parent to animal figures whom children can share anxiety of extinction.” In films like *The Land Before Time* (1988) and in fossilized displays of dinosaur family units in natural history museums, dinosaurs are presented as having social systems very similar to

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7 Ibid, 244.  
8 It may be that the specific demographic targeting of this show itself includes a subliminal cultural message advocating exclusivity. Children who understood the show as their own private sphere during the preschool years are conditioned to reject it once they have attained to exclusivity the classroom.  
modern human arrangements. Young dinosaurs are playful youngsters in need their parents’ protection, the offspring of nuclear families with familiar social dynamics of authority and willful insubordination. *The Land Before Time*’s protagonists are a collection of dinosaurs forced to cope with a dangerous and unpredictable world without the care of their parents, a narrative that draws on children’s common fears of abandonment as well as their sense of being wiser and more independent than their parents.

There is also a powerful utopian element in such depictions of dinosaurs-as-children. Children’s media in general often plays upon the idea that children, left to constitute their own lives, free from the requirements and burdens of parental authority, would exist in a happy, perfect world. Ellen Seiter argues that a “utopian sensibility,” one that envisions a world “where kids rule,” is central to the appeal of children’s media. She adds that, “Children’s commercial television is also what we may call utopian, universally appealing to children in its subversion of parental values…”10 Dinosaurs suit this utopian sensibility because so little is in fact known about their social arrangement that they offer a empty field on which to project idealistic expectation. At the same time, they exist in a world outside our own, a world that is nonetheless very real and grounded in science.

*Barney and Friends* is one expression of this utopian trope in children’s media: after all, “Mom can’t see him” and he only comes to life once adults have left the room, engaging children in a world unto themselves. Films like Disney’s *Dinosaur* (2000) and *The Land Before Time* series depict child dinosaurs as canny

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survivors who carry on even after the death or disappearance of their parents. In these films, dinosaurs are rarely discussed or displayed without mention of their egg-born lifecycle and the rearing of infant young – aspects of dinosaur existence immediately familiar and appealing to young children.\(^{11}\) Dinosaurs existed in an era of history long before the advent of the society and world that children know, and depictions of dinosaurs thus represent the fulfillment of the childhood fantasy of complete freedom and release from the rules and limitations that their world imposes.

These popular media representations are uniformly secular, other than in the extent to which the promulgate Judeo-Christian values. In contrast, comparable Christian texts come at a disadvantage in large part because of the absence of children and child heroes in the Bible. While a great deal of dinosaur-themed media is geared directly to children, Christian texts are conspicuous for their lack of children or figures with whom children can readily identify. The Bible, with its depictions of historical kings and prophets, is shaped by narratives of grown men and women grappling with adult dilemmas and contains virtually no child protagonists. From the Israelite patriarchs of the Old Testament to the Jesus of the New Testament, individuals seem to pass instantaneously from birth to adulthood; Jesus’ life as a child is almost entirely omitted from the four canonical gospels. While the Bible’s thematic substance illustrates many of the moral lessons taught to children by Barney and

Friends, little is framed in a child-friendly context or us immediately available to children’s empathy.

Recognizing dinosaurs as the focus of so much adulation and fascination by children, purveyors of evangelical Christian thought have, at times, expressed concern that a cult-like fascination with dinosaurs in children’s media might undermine religious worship. Minister Phil Phillips authored 1994’s *Dinosaurs: The Bible, Barney, and Beyond* in response to the wave of dinosaur mania following the release of *Jurassic Park*. In it he takes Barney to task for usurping Christ,

> All the benefits notwithstanding, I’m not a fan of Barney. I find the metaphysical aspect of the show troublesome—the fact that Barney is a stuffed animal that comes to life as a walking, talking, miracle-working hero…He does what Jesus Christ alone can truly do in a person’s life—give abiding comfort and be a source of divine love.12

Dinosaurs, Phillips suggests, can function as false idols in the lives of Christian children, consuming the love and devotion they reserve for Christ. Phillips is also uneasy with the utopian, magical aspects of *Barney and Friends*, in particular, Barney’s unique, quasi-mystical powers, suggesting that perhaps such children’s media compete with and threaten the centrality of worship in the lives of Christian children.

In attempting to bridge the gap between Christian doctrine and secular children’s media, many Christian authors, animators, and marketers are confronted by the plain fact that biblical text proffers a different quality of storytelling than that to which a modern child audience is accustomed. Rooted in pre-modern traditions, much of Christian biblical liturgy is quasi-historical or flatly allegorical, lacking the

narrative construction, sensory detail, and vivid characterizations children find in
secular media. Biblical liturgy is community-oriented, designed to draw together and
systematize a body of beliefs that was still emerging during its writing. The origins of
biblical liturgy were not crafted to provide the narrative cohesion of linearly-
constructed children’s stories, but rather to provide the foundations for the
burgeoning Christian community. The Bible is more often read as religious history
than as artful fantasy, and it does not readily engage its young readership in the
aesthetics of myth. The language, even in most colloquial transliterations, remains
arcane and as was and is the case of Latin liturgy, much of the Bible’s power resides
in its sheer inscrutability. To be sure, it is not a text that modern children are apt to
pick up and read on their own in the reading corners of their libraries or classrooms.

Modern evangelical media, particularly with the emergence of the
teleevangelists, have acknowledged the discrepancy between the public nature of the
Bible and the private consumption of most modern media. Evangelical media
producers, in their publications and productions, work to “privatize” faith and
translate it into a primarily individual experience, one that, in a fashion that mirrors
the private experience of secular media. To be sure, the effort is not entirely an
accommodation. The theological basis of contemporary American evangelicalism,
with its emphasis on a personal relationship with Christ, suggests that the road to
conversion is one well suited to more modern form of liturgy.

The shift to a contemporary, postmodern liturgy remains, however, a delicate
balancing act. One common characteristic of evangelical Christianity is an emphasis

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on biblical literalism and the fixed truth of the biblical text. What is literal cannot be easily translated into other media, especially media palatable to children. Evangelical children’s media finds an obstacle in translating for children a text, the truth of which lies as much in the form as in the content. Nevertheless, the tradition of biblical literalism has long contained this paradox. As Susan Harding writes, “The Biblical text is considered fixed and inerrant, and it means what God intended it to mean, but discerning that meaning is not simple or sure or constant. The Bible is at once a closed canon and an open book, still alive, a living Word. Preachers and their followers are third testaments, the authors of always unfolding chapters and verses.”

While the text itself is understood as divinely ordained, its meaning is deduced and refined by its readers.

Traditional children’s bibles condense the Bible’s stories and simplify themes and structures to make them intelligible to young readers. In general, the tendency has been to tip the balance from literalism, standardized and public, to private negotiation with text and with faith. Ruth Bottigheimer explains, “Children’s Bibles express values and standards that are not universal and eternal but particular and ephemeral. Bound by place and time, they adapt an ancient and inspired text to changing manners, morals, ideas, and concerns…their authors’ common effort to use the Bible to shape a meaningful present has produced Bible stories that mingle sacred text with secular values.”

The ideology of biblical literalism, however, continues to complicate the transliterations and reinterpretations because any form of editing and

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abridgment, as is necessary in creating children’s Bibles, is certain to de-sanctify the text.

Part of the solution for evangelical media has been to turn to media beyond the liturgy itself. Over the last two centuries, but particularly since evangelicalism reengagement in the public sphere in the 1970s, evangelical media has worked to uphold the history and literalism of biblical interpretation while also engaging in non-liturgical forms of religious dissemination. Evangelicalism boasts a long tradition of religious merchandising and media-driven promotion that dates back to the popularity of religious iconography in the 19th Century, when renderings of religious imagery could be purchased to sanctify the home or workplace. Christian bookstores began to emerge after World War II, and Christian political media began to gain force with Jerry Falwell’s founding of the Moral Majority in the late 1970s and his urgent call for direct political engagement in the 1980s. By appropriating the forms and presentational substance of secular media, Christian media gathered cultural force in the 1980s, challenging what were perceived as the errant and corrupting messages of secular media. As Heather Hendershot writes, “…those who accepted Falwell’s invitation to action were, in effect, transforming themselves from separatist fundamentalists into engaged evangelicals. And cultural goods such as videotapes, music, and books may have helped to ease and maintain this engagement.” Clearly, by this time, evangelicals had accepted the power and the uses of modern media, uses that worked in parallel with, rather than in contradiction to, biblical literalism. Evangelicalism also has a long history of subtly adapting to contemporaneous change.

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16 Susan Harding offers a comprehensive history of movement to reengage American evangelicalism with the public sphere in the introduction to The Book of Jerry Falwell.
17 Hendershot, Shaking the World for Jesus, 27.
Doing so is a complex, two-way process, as Hendershot describes, one in which new Christian media have played an expanding role: “The growing Christian market in films, videos, and Web sites, then, is not evidence of the ‘secularization’ of evangelical culture but rather of the complicated osmosis occurring between the ‘secular’ and the ‘religious’.”\textsuperscript{18} As important a precept as biblical literalism is in most forms of evangelicalism, the movement has been imbued with levelheaded sense of pragmatism in its efforts to combat the scourge of “secular humanism.”\textsuperscript{19}

Evangelical media producers, as self-described combatants in the culture wars, have become well aware of the value of children as a target audience. As Focus on the Family founder Dr. James Dobson warns, children, susceptible to indelible and irreversible indoctrination, constitute both a threat and an opportunity.\textsuperscript{20} Evangelical children’s media mirror the forms and presentation of secular media so as to offer children a Christian alternative to potentially corrupting influences. Popular evangelical children’s media today—from the successful animated film and video franchise \textit{Veggie Tales}, to the live action superhero show \textit{Bibleman}, and the sitcom \textit{McGee and Me}—are ambiguous with regard to traditional Christian dogma, focusing instead on relaying “family-oriented” principles such as the value of obeying parental authority.\textsuperscript{21} Christian media that promote parental authority (like the Bible itself) lacks the common and appealing trope in secular children’s media of a utopian

\begin{itemize}
\item \textsuperscript{18} Ibid, 6.
\item \textsuperscript{19} Hendershot continues on p. 11: “…evangelicals have not simply ‘sold out’ or been ‘secularized.’ Rather, evangelicals have used media to simultaneously struggle against, engage with, and acquiesce to the secular world.”
\item \textsuperscript{20} Ibid, 35.
\item \textsuperscript{21} Ibid, 35-36.
\end{itemize}
“world where ‘kids rule.’” Nonetheless, by delivering a relatively subtle message about Christian principles, such media attempt to capture the imaginations of children at their most impressionable, or vulnerable, age. Here, as they have for secular and scientific media, dinosaurs have shown a unique adaptability in making the arcana of adulthood accessible and even appetizing to children.

One respect in which evangelicals have put dinosaurs and children’s fascination with them to use is to bridge the gap between textual literalism and imaginative fantasy. Answers In Genesis (AIG) ministries, Ken Ham’s evangelical media empire, publishes children’s bibles that feature unabridged and unaltered text, accompanied by kid-friendly illustrations. As he explains in, “Dinosaurs and the Bible,” an essay intended for children, “The Bible, God’s very special book (or collection of books, really), claims that each writer was supernaturally inspired to write exactly what the Creator of all things wanted him to write down for us so that we can know where we (and dinosaurs) came from, why we are here, and what our future will be.” Ham also publishes scores of children’s books that depart from strict recitation of the biblical text to provide lessons more palatable to children, stories and interpretations that are semantically, if not textually, dedicated to literalism. Without sacrificing the transcendent inerrancy of the text itself, these media frame the Bible’s teachings in formats that pair biblical citations with an interpretational authority that

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explains and enriches the biblical text. The reality of dinosaurs would seem to be at
odds with biblical literalism but some evangelicals have found otherwise.

Ken Ham makes the common creationist argument that the description in Job
40 of the behemoth, a large beast that has a tail “like a cedar tree” can only be
understood to be a dinosaur. Ham suggests indirectly that a cultural fascination with
dinosaurs itself is nothing new and that it was shared by the authors of the Bible. He
contends that the lengthy passage could only refer to a dinosaur, as opposed to an
elephant or hippopotamus, as other Bible commentators have suggested. Ham and
others conclude that, because the Bible rarely mentions other animals, such an
anomalous description would surely be reserved for God’s greatest non-human
creation, the dinosaur. Creationists of the biblical literalist tradition further note that
the Bible does not refer to “dinosaurs” explicitly because the word itself did not exist
in any scientific or popular lexicon until the nineteenth century. Many creationists
theorize as well that the many references to dragons in ancient myths and legends
around the world are likely references to dinosaurs that survived the biblical flood
and went on to coexist with humans for many years, eventually dying out as a result
of sin-related catastrophes that have befallen the earth over the eons.

The cultural osmosis through which Christian media have absorbed influences
and elements from secular counterparts has resulted in a theory of dinosaur-driven

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24 Job 40: 15-24 King James Version, “Behold now behemoth, which I made with thee; he eateth grass
as an ox/ Lo now, his strength is in his loins, and his force is in the navel of his belly/ He moveth his
tail like a cedar: the sinews of his stones are wrapped together/ His bones are as strong pieces of brass;
his bones are like bars of iron/ He is the chief of the ways of God: he that made him can make his
sword to approach unto him/ Surely the mountains bring him forth food, where all the beasts of the
field play/ He lieth under the shady trees, in the covert of the reed, and fens/ The shady trees cover him
with their shadow; the willows of the brook compass him about/ Behold, he drinketh up a river, and
hasteth not: he trusteth that he can draw up Jordan into his mouth/ He taketh it with his eyes: his nose
pierceth through snares.”

25 Ham, “Dinosaurs and the Bible.”
creationism and its appearance in children’s media. What distinguishes dinosaurs from other subjects of evangelical children’s media is the fact that dinosaurs are not employed merely as imaginative devices for biblical instruction, but that they are treated as actual, and woven into the very biblical narrative itself—the creators of *Veggie Tales*, for example, never claim that talking vegetables are mentioned in the Bible. The Answers in Genesis Creation Museum offers a walking tour of what the curators call “The Seven C’s of History: Creation, Corruption, Catastrophe, Confusion, Christ, Cross, Consummation”. Every step of the way, dinosaurs serve protagonists of this journey through the Bible’s central events. In “What Lessons Can We Learn From the Dinosaur?,” Ham begins with a list the ways that dinosaurs may remind readers of the nature of God. The text is strikingly precise. Lessons include the belief that God did not intend for death to be a part of His original creation, meaning that all dinosaurs, even the fearsome T-Rex, were plant-eaters before Adam sinned in Genesis 1:30. Ham also teaches that God, as the judge of His creation, punished the sins of some dinosaurs with the flood while granting mercy to obedient dinosaurs taken aboard Noah’s Ark. These lessons eventually move further and further away from dinosaurs until Ham ends with an invitation to the reader to accept Christ as lord and savior.26

Clearly to a certain extent, the evangelical turn to dinosaurs has been less a matter of biblical literalism than a reaction to the cultural threat that myth of dinosaurs presents. Some evangelicals, parents especially, see dinosaurs as vehicles for all the worst elements of secular humanism. So ingrained in secular culture, dinosaurs are representative and constitutive of its corrupting and dominant

26 Ibid.
influences. The tendency, however, has been not to reject dinosaurs but to embrace them. Phil Phillips, writing to an audience of evangelical parents, notes that,

Dinosaurs have been used to promote just about everything in America, from cereal to gasoline…You and your child are likely to encounter dinosaurs at clothing stores, libraries, doctor’s waiting rooms, grocery stores, and national parks, in newspapers and on television, and even on school milk cartons…No one seems immune to the spell of dinosaurs. And especially so, our children…Dinosaurs are with us still. We need to learn just how to live with them in peace.27

Once the policy of social disengagement was no longer a basic tenet of American evangelical Christianity, religious leaders and parents alike were faced with the task of integrating the potentially poisonous influence of dinosaurs into their religious cosmology.

Literalism aside, the incorporation of dinosaurs into biblical narrative is in part a defensive strategy against secular dinosaur media, providing parents with tools to protect their children from unchallenged exposure to the secular dinosaur myth. Secular “dinomania” provides evangelicals with an opportunity to define their faith in opposition to the corrupting influence of such media. The Answers in Genesis (AIG) website has movie reviews for any movie that might present dinosaurs in an evolutionary context, such as Jurassic Park and its sequels, Disney’s Dinosaur, and Night at the Museum. The reviews always begin by meticulously critiquing of “suspect science” of evolution and point out any “Darwinian subtleties” in the film. Criticism is followed by a detailed description of how the creationist stance diverges from that of the film, and reviews generally end with a suggestion that audiences use the film as an opportunity to spread the gospel of Christ. One review reads,

27 Phillips, Dinosaurs: The Bible, Barney, and Beyond, 11.
Since Hollywood movies, TV programs, museums, and evolution-based texts constantly use dinosaurs to ‘support’ evolution, it’s important that Christians have answers in a dinosaur crazed culture. After Christians present the above information to their friends and family, perhaps the unsaved of them will be more prone to listen to what the rest of the Bible claims—including its gospel message—and for the puzzled Christians they talk to, they will become more confident in their faith.28

It would be simplistic to say that evangelicals have simply co-opted dinosaurs for their own ends, or that they did so in response to secular threat. On the contrary, from a literalist perspective, dinosaurs occupy a place in the Bible and are evidence of God. The public fascination with dinosaurs is as much Christian as secular, and evolutionary interpretations of dinosaur science are blasphemous. The movement urges no boycott against films such as *Jurassic Park*. Evangelicalism has always understood itself not as confrontational but as an oppositional movement that springs from a dialectical identification with the secular and ungodly. Answers in Genesis urges parents to see these films and to use them as proselytizing tool.

Creationist texts are not merely interested in refuting the broad strokes of evolutionary theory, they are equally committed, if not more committed, to using dinosaurs to educate children about the Bible itself. Evangelical Christian authors are committed to actual biblical instruction beyond the more immediate goal of resisting the secular evolutionary narrative. Taylor makes this goal entirely explicit in an essay for Christian adults titled “Dinosaur Mania and our Children”:

Every Christian is in a position to help children escape this great dinosaur deception...Christians should take advantage of the unique opportunity the dinosaur fad presents—before it is too late. People are interested in dinosaurs now. So now is the time to

present them with the truth. One of the prime duties of each Christian is to proclaim news of our Creator to glorify him. Dinosaurs can be used admirably to do this—like all other things in creation.29

What appears initially to be a tenuous linkage between a few disparate biblical passages has grown into a robust school of biblical dinosaur exegesis; by explicating the system of inferences and interpretation that indicates dinosaurs’ presence in biblical history, children learn the complex process of unpacking scripture for themselves. Ken Ham writes that, “The Bible tells us in Romans 8:20-22 that sin affected EVERYTHING God had made. This means sin affected dinosaurs.”30 This use of syllogistic logic to apply a biblical passage to something not mentioned explicitly in the passage itself represents a complex quality of reasoning. Such books not only teach their readers about the Bible, but how to read the Bible as well. In this context, dinosaurs become a conduit for more general instruction about the tenets of the evangelical Christian worldview and doctrine. By harnessing children’s imaginations, evangelical media are able to inculcate a way of thinking that bridges the gap between science and faith – to the advantage of faith.

In their effort to incorporate dragons and biblical serpents into a paleontological context, creationists face a dogmatic quandary in considering the Edenic narrative of the Book of Genesis. Was it a dinosaur, coiled in the canopy above the Garden, that tempted Eve? AIG’s published materials leave this question largely unanswered, as is apparent in its animated television spot advertising the Creation Museum. The commercial begins with the image of the Edenic serpent and

ends with that of a T-Rex. The idea that a dinosaur may have been complicit in the fall of man complicates the depiction of dinosaurs as God’s greatest non-human creation. Arthur Conan Doyle’s book, *The Lost World*, and the later American film adaptation ambiguously depict “the land that time forgot” – is it an Edenic paradise or the depths of hell, a realm untouched by sin or a blasted wilderness bereft of God’s light? Although Doyle’s story is not an evangelical text, *The Lost World* was the popular foundation of much dinosaur media and its effect was enormous on secular religious depictions of dinosaurs was enormous. Sanz frames this paradox compellingly:

> Another odd trait of the lost world is its sense of being a prohibited and damned place, dangerous for those who dare to venture into it and the source of dramatic events if one of its inhabitants abandons the place…It is a place in which humans are not the dominant species and in which humankind is scarcely able to survive against the enormous beasts of the past…The lost world is a morally and physically dangerous place. Dinosaurs have on occasion represented primordial evil—the fundamental evil that has existed since the beginning of time.\(^{31}\)

The general supposition that the various dragons and lizard-like creations of Christian myth were actually dinosaurs is an exciting “hook” for creationists, but one that poses larger questions about God’s attitude toward the beasts. The lack of creationist consensus over exactly how the dinosaurs went “extinct” suggests the fact that dinosaurs’ role in the creationists cosmology is an evolving discourse. Genesis is a powerful, foundational narrative, and its centrality to evangelical Christianity means that the developments of secondary doctrine—such as dinosaurs—will inevitably reshape the theology of Genesis.

\(^{31}\) Sanz, *Starring T.rex!*, 57.
Literalism in evangelical Christianity finds still other uses for dinosaurs. The tradition of literalism views the Bible not only as the revealed word of God but as a sort of encyclopedia, providing clear answers to hard questions. Literalism thus acts as a biblical parallel to science and shares an appeal of a kind of thinking that raises and answers questions about the physical world. Evangelical Christian children’s books on dinosaurs are more than vehicles for biblical exegesis – they work as hard as secular texts to satisfy children’s appetite for actual dinosaur-related facts. Such Christian media are fully engaged in the enterprise of child empowerment, furthering their reader’s mastery of esoteric dinosaur knowledge. Books like Ham’s *Dinosaurs of Eden* inundates its readers with dinosaur names (complete with phonetic pronunciations), facts about their life cycles and explanations of how particular species’ Latin names were derived: “Megalosaurus (MEG-a-lo-SAWR-us), *meaning* big reptile, was the first dinosaur to be named scientifically.”\(^{32}\) Paul S. Taylor’s *The Great Dinosaur Mystery and the Bible* even begins with one of paleontology’s most notable taxonomic foibles, the misattribution of the Brontosaurus skeleton, “…even though it was pictured in every dinosaur book and museum for the last hundred years.”\(^{33}\) Such books and videos are very attentive to the kind of meticulous detail and quotable specificity that children respond to when absorbing minutiae about their favorite extinct reptiles.

Like its secular counterparts, evangelical dinosaur media range beyond the realm of science to what might be better called philosophy. The book *Why is Kieko Sick?* is an instructive example of the ways in which these media address fundamental

\(^{32}\) Ham, *Dinosaurs of Eden*, 13. See Appendix, Figures A3 and A4

existential subjects (death, illness and mortality) while allaying children’s fears.\textsuperscript{34} The book concerns the friendship between two young girls, one Japanese, one American. When Kieko develops leukemia, the story becomes less a book about cultural division than an exploration of the reasons for illness and pain. The author uses dinosaurs to reiterate the ultimate truth and power of the Bible; when the protagonist, Emily, finds out that her friend Kieko is sick, she asks her parents why bad things happen, and her parents use the Bible to instruct their daughter that all bad things, whether the extinction of the dinosaurs or the deaths of loved ones, happen because Adam sinned. Emily, considers their explanation: “I thought about how God created Adam and Eve in their perfect garden, and how they disobeyed and everything changed, and about how I sometimes disobey my parents. Then I thought about how because of all our sin, Kieko has cancer. It made me sad.”\textsuperscript{35} Although the reference dinosaurs is brief, it demonstrates the way in which they have become subsumed not only within literalist biblical exegesis, but within the morality of the Edenic narrative and the Bible as a whole.

The story of Kieko is entirely self-contained in the sense that, like the Bible, it is not a reactionary text. It is serves the Christian community and is intended for Christian readers. Whatever its origins, the pedagogical role of creationist dinosaur media is not perpetually bound up in reaction to the secular community. The evangelical view of the endtimes and the ways in which this millennial stance informs evangelical lives and theology is unique to the movement. One compelling use of dinosaurs in Christian children’s media is to raise the question of whether dinosaurs

\begin{footnotes}
\item[34] Stacia McKeever, \textit{Why is Keiko Sick?} (Green Forest: Master Books, 2006). See Appendix, Figures B1-3.
\item[35] Ibid, 25.
\end{footnotes}
might repopulate the Earth during the millennium, following the biblical endtimes. The question of dinosaur resurrection fascinates children, as secular media suggests, but the evangelical extension of this fascination is very much its own. Ham ends *Dinosaurs of Eden* on a hopeful note, suggesting, “Do you think God will ever make dinosaurs again so we will see them in the new Earth? I hope so, don’t you?” For children, this is perhaps the most exciting idea of all: in God’s eternal kingdom, living, breathing dinosaurs may actually one day be returned to Earth. It is the dispensational millenarian spin on the secular fantasy of *Jurassic Park*. The Bible is thus positioned as not just “a history book that [tells] us all we need to know about the events of the past” and the dinosaurs, but an exciting narrative of the dinosaurs’ potential resurrection one day.37 Paul S. Taylor, writing about life during the millennium, notes that, “We will see the dinosaurs (and all extinct animals) in the way that God intended, not as dead bones, but as beautiful, living creations designed for our enjoyment.”38 Dinosaurs, as one of God’s creations, lived and died by His plan – is it not conceivable that they might one day return as part of his everlasting paradise? This suggestion that they might is not one advanced universally across creationist dinosaur texts, but it is an example of the Christian use of dinosaurs that leaves secular contexts far behind. *Jurassic Park* entails a willful suspension of disbelief—it’s satisfaction ends when its audience leaves the theater. The endtimes, on the other hand, are a question of faith and their satisfactions endure for a millennium.

It comes as little surprise that evangelical children’s media, even (or especially) in the face of the challenges posed by paleontological science and secular

36 Ham, *Dinosaurs of Eden*, 64.
37 Ibid, 48.
myth, have found a way to marshal a once-secular narrative about dinosaurs to its own purposes. The tools at the disposal of evangelicals are, in many ways, more diverse than those employed by the secular evolutionary and mythmaking establishment. Biblical text and biblical history, for all the absence of child heroes and the difficulties of its superannuated rhetoric, are ideally suited to children’s conception of “the land before time,” and their hopes for the future. The cosmological grandeur of such concepts inspires a sense of wonder and mystery that secular science, and even secular myth, cannot muster as readily. For centuries, Christians have wrestled with the conflict between rationalism and faith, the irreconcilable tension between the known and the unknowable. Despite the ascendance of modern (and postmodern) philosophies that reduce the world to utilitarian calculations uninterested in notions of God and morality, evangelicals have sustained awe and mystery through faith and a comfortable rapport with the unknown. While the goal of science is to explain the mechanics of the universe’s mysteries, religion keeps the wonder of those mysteries alive. Children’s minds are able to sustain the tension between the factual and the unknown and in much the same way. For this reason too, evangelical children’s media has access to the minds of children in a way that secular and scientific media do not. The conflict between myth and history, the imaginary and the actual—from the idea that dinosaurs once coexisted with humans or the hope that we might live to see them on earth once again—are the tensions that evangelicals both sustain and resolve by keeping their holy texts and ways of thinking vibrant and alive, in spite of change.
Dinosaurs have served multiple ends for the broader evangelical Christian community – rather than merely serving as symbols of the folly of evolutionary science, they are now commonly employed as representation of the Bible’s enduring truth. Dinosaurs serve to “disenchant” creation science; situated within the framework of the Bible, dinosaurs work to *affirm* biblical literalism and the timeline of the six-day creation. In this fashion, dinosaurs provide a starting point from which to debunk secular tenets and even to “save souls,” making evangelical Christianity all the more attractive through a seamless incorporation of what science has called pre-historic. Most important, dinosaurs infuse the Bible with images and themes that attract and hold the attention of children. For secular and Christian communities alike, dinosaurs serve as a bridge between fact and faith, between present and past, between known and unknown – they provide a space in which both the real and the imagined can coexist side by side.

Christian media have an advantage in using dinosaurs to engage children because secular media make a firm distinction between science and myth; Christianity has historically worked to unite the mystical with the rational, and the unique symbolic identity of dinosaurs is particularly well-suited to its religious ethos.
Religion, on a routine basis, mediates the fundamental, existential question of what is known and what is unknown. Much about dinosaurs will remain forever shrouded in mystery, and thus the space they provide for the engagement of imaginative faith is both broad and deep. Intellectual and emotional engagement with dinosaurs constitutes two different modes of thought that exist in constant tension with each other. An active engagement with dinosaurs serves to reconcile the chronic dualities of the human condition, the same dualities that religious faith serves to reconcile.

To a certain extent, unquestionably, evangelical Christians have engaged dinosaurs because they represent a threat from secular culture, but, from the outset, dinosaurs have presented much more than an opportunity for reactionary response. Dinosaurs are effective tools in the evangelical community because they function as quasi-religious objects in and of themselves. They mend the apparent disjunction between history and myth and serve to synthesize other dichotomies. By the standards according to which certain social phenomena are constituted as religious, dinosaurs may be considered legitimate structures of faith. The saga of the dinosaurs’ time on earth is a religious myth, a toy dinosaur is a religious object, and “dinomania” is a form of religious fervor. Dinosaurs fit so well within the evangelical religious media because they have per se a distinctly religious quality. If dinosaurs can penetrate the generally inviolable wall that separates scholarly science from popular culture, perhaps they can broker the distinction between the sacred and the profane as well.

1 David Chidester and John Linden, among others, have proposed a methodology through which to assess various extra-religious cultural phenomena, from rock and roll to film, as religious. The writers apply sets of diagnostic criteria established by the canon of religious studies to their subjects. See below.
Clifford Geertz’s definition of religion substantiates the children’s apprehension of dinosaurs as a religious phenomenon. According to Geertz, religion is:

1) a system of symbols which acts to
2) establish a powerful, pervasive and long-lasting moods and motivations in men by
3) formulating conceptions of a general order of existence and
4) clothing these conceptions with such an aura of factuality that
5) the moods and motivations seem uniquely realistic.

His definition recognizes the capacity of religion both to create order and to provoke an unparalleled and concrete sense of truth for its adherents. For Geertz, these “systems of symbols” function as “extrinsic sources of information” that “give meaning, that is, objective conceptual form, to social and psychological reality both by shaping themselves to it and by shaping it to themselves.” Religious symbolic systems are unique because they are both models for reality and models of reality—“they both express the world’s climate and shape it.” Dinosaurs are “system[s] of symbols” for children who engage with them. Certainly dinosaurs establish moods in children, whether fear or fascination – and these moods tend to persist for longer than a typical child’s short attention span might suggest.

Dinosaurs also establish motivations, which Geertz says are neither acts nor feelings but “liabilities to perform particular classes of act or particular classes of feeling.” In other words, dinosaurs are not merely factual entries in children’s expanding reservoirs of perceptive data – they are actionable influences that shape children’s understanding of the world and of how they fit into it. Psychologist John E.

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2 While Geertz’s definition has been rightly criticized as insufficient for its emphasis on the interiority of religious experience, it seems unquestionably applicable to the nature of American evangelicalism, with its particular stress on individual conversion and a personal relationship with Christ.


4 Ibid, 92-93.

5 Ibid, 95.

6 Ibid, 97.
Schowalter writes, “…the interest in dinosaurs seems to be a brief but useful adjunct in the developmental process and in accommodating appropriately to an adult-ruled environment.” Children gain knowledge and templates for social-functioning from dinosaurs beyond the scientific facticity that fills age-appropriate books on the subject. As in *Barney and Friends*, dinosaurs often serve as protagonists in the moral fables that provide the basis of so much of children’s media. Insofar as they function as symbolic models for child development, dinosaurs meet the criteria of Geertz’s definition.

Dinosaur media also serve a religious function by communicating the basic realities of human existence to children. As per Geertz’s definition, dinosaurs help children “formulate conceptions of a general order of existence,” not only through their uses in formidable pedagogical media, but in that their mythical aspect helps children mediate the essential transience of life. The extinction of dinosaurs illustrates to children the implacable rhythm of life and death, suggesting that all things must one day “go the way of the dinosaurs.” Dinosaurs are different from other cultural symbols that may establish moods and motivations in children in part because the source for such dispositions is a belief in dinosaurs’ “all-pervading vitality.” Both imagined and actual, dinosaurs have a vividness and vitality that few cultural symbols possess. The sense of order they provide is an enduring, self-perpetuating product in the same way. Schowalter notes that a chief characteristic of dinosaur fascination in children is that fantasies involving dinosaurs “contain at least some recognizable

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8 Geertz, *The Interpretation of Cultures*, 98.
connection to real life.” The attraction of dinosaurs is grounded in a discernable relation to the world in which children live – they reaffirm a child’s reality, much as faith in God affirms the reality of a believer.

The sense of mastery that children find in internalizing dinosaur-related arcana recalls Geertz’s notion that religion provides a sense of discernable order. Depictions of dinosaurs in children’s media are rarely totally divorced from a basis in paleontology and biological science. The dinosaur is thus given an “aura of factuality” that gives weight to the transcendent truths that dinosaurs represent in their more mythic aspects. Geertz recognizes the distinction between scientific and religious perspectives when he writes that the religious perspective:

…differs from the scientific perspective in that it questions the realities of everyday life not out of institutionalized skepticism which dissolves the world’s givenness into a swirl of problematic hypotheses, but in terms of what it takes to be wide nonhypothetical truths.  

Religion tackles the same basic questions as science, but never abandons the totality of vision that characterizes religious belief. The aura of factuality that pervades “dinomania” is uniquely realistic because the “fact” of dinosaurs is understood as an absolute truth, but a truth that lies beyond a tangible frame of reference. Religion links reality with an alternate sense of reality, fusing what “is” with what “might be.” Given how little is known about dinosaurs beyond their fossilized remains and competing evolutionary hypotheses, dinosaurs also present this “dual” sense of reality.

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10 Geertz, The Interpretation of Cultures, 112.
11 Geertz, 94.
Dinosaurs serve a religious function in their particular location of the human experience. David Chidester, in *Authentic Fakes*, and John C. Linden, in *Film as Religion*, investigate nontraditional religious forms in popular culture and argue provocatively that the distinction between religion and other forms of culture is less stark than it might seem. Their application of theories of religion and religious practice to what are often categorized as “ordinary” or “secular” aspects of culture can be easily extended to dinosaurs. Chidester writes that, “something is doing religious work if it is engaged in negotiating what it means to be human.”

Religion is not limited to its institutional aspects—services of worship, ritualized atonement, a defined community of believers, etc. – it also engages in a dialogue about what transcendentally defines existence. Chidester further speaks to the idea that religious belief often involves defining humans in contrast to a superhuman being, and that it facilitates the orientation of the faithful in time or space – in other words, a transcendent non-human presence helps provide structure and order. The same may be said of dinosaurs, through which children may locate themselves in a time and space that are both real and imaginary.

Linden applies a similar methodology to American cinema. “This is not to say that everything in culture is ‘religion.’ Rather it is to argue that what we have always called ‘religion’ is identified by its function in society, and that this function can be met even by cultural phenomena not normally called ‘religious.”

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13 Ibid.
occupy has religious significance. For Chidester, “religion is both fake and authentic” — the same can be said equally of dinosaurs, which exist in part as fantastical behemoths and in part as solidly-substantiated biological beings. The contradictions and paradoxes involved in the simultaneous imagining and evidentiary grounding of dinosaurs can be read through the lens of religious experience.

Dinosaurs, moreover, are icons, and as icons they equal and, at times, transcend the status of many other cultural phenomena. Their studied, tangible qualities are ancillary to a collective understanding of what they represent and mean. As Chidester writes, “In the production and consumption of popular culture, even ordinary objects can be transformed into icons, extraordinary magnets of meaning with a religious cast.” Indeed, the quotidian lives of dinosaurs – long-dead lizards whose remains have been encased and preserved for eons in magma and sediment – cannot explain the role they play in the cultures that have appropriated them.

Among other things, as mentioned, dinosaurs serve as “transitional objects.” As such, they mediate the developmental transition from subjectivity to objectivity in children by transcending the dichotomy of wish and actuality. Dinosaurs exist within the external world but acquire meaning through the child’s subjective—and intensely personal—engagement with them. Schowalter notes that dinosaurs, as “monsters” of the imagination who are nonetheless grounded in empiricism, serve as a unique bridge for children to pass from subjective fantasy to an objective world.

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15 Chidester, Authentic Fakes, 231.
16 Chidester, Authentic Fakes, 34.
There is a body of scientific knowledge about dinosaurs which can be mastered and for which the child receives praise and is taken seriously, something that is not true for other monsters. Preoccupation with Batman, Robin, or a bionic superhero may provide the same thrill of identification with an aggressor, but it is a less obvious step toward development in the real world. Dinosaurs thus serve as a cognitive stepping stone for children, helping them grasp a higher-order understanding of the world around them. Knowledge, selectively validated by adults, gains legitimacy in the eyes of children through their study of a subject that begins more as myth than as fact. For children, this is a symbolic, conceptual transition that is aided by a specific kind of engagement with the outside world. It is not merely a transition from the pleasure principle to the reality principle. In his essay “Playing and Believing: The Uses of D.W. Winnicott in the Psychology of Religion,” James W. Jones writes, “Winnicott is proposing an independent line of development for the symbolic process that starts from the play of children and eventuates in…the evocative symbols of the world’s major faiths.” Religious symbols are transitional in the Winnicottian sense – they provide a bridge from childhood play into a mature understanding of that most adult of symbolic cosmologies, religious belief. Transitional spaces and moments are also sacred; as Jones argues, transition produces creative renewal and the tensions out of which thoughts and ideas are formed and refined. Ritual, in essence, recreates transitional space by summoning

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19 James W. Jones, “Playing and Believing: The Uses of D.W. Winnicott in the Psychology of Religion,” in Religion, Society, and Psychoanalysis, ed. Donald Capps and Janet Liebman Jacobs (Boulder: Westview Press, 1997), 114. It is important to note that neither Jones nor Winnicott are implying that there is something juvenile about religious symbols. Winnicott’s theory is often applied to adult symbolic expression, both religious and secular.
elemental forces and reaffirming their potential to change and realign.\textsuperscript{20} This is a necessarily a subjective experience, bridging one moment and one worldview with another. Religious ritual can mediate the epistemological dichotomy of subject and object through the use of artifacts (rosaries, the Eucharist, etc.) that exist in the physical external world but are given meaning through subjective assimilation and application of cultural and individual experience.\textsuperscript{21} It is in liminal moments of transition and ritual that consciousness and thought are shaped and reshaped. Dinosaur play and religious ritual, as disparate as they may seem, each mediate known and unknown, past and present, subject and object, myth and history.

Although the intellectual foundations of evolution and biblical history differ widely, certain basic similarities between religious experience and children’s emotional engagement with dinosaurs present a unique opportunity for evangelical Christians to actively shape the religious imaginations of children. Children interact with dinosaurs in an immediate, visceral fashion that collapses the space between a perceived present and a re-imagined prehistory. As Schowalter explains, “For a child without the clear ability to tell past from present, dinosaurs become ideal images with which to struggle with issues concerned with asserting oneself and growing up.”\textsuperscript{22} Dinosaurs are both templates and canvasses, providing models for emulation and spaces for projection. The distinction between past and present is functionally blurred.

\textsuperscript{20} Ibid, 120.
\textsuperscript{21} William Meissner, “The Role of Transitional Conceptualizations in Religious Thought,” in \textit{Psychoanalysis and Religion}, ed. Joseph Smith and Susan Handelman (Baltimore: Johns Hopkins University Press, 1990) 107. Meissner continues on p. 109: “Religious symbolic systems are, at least in the Judeo-Christian tradition, derived from a twofold source that is at once subjective and objective. The subjective dimension comes from the dynamic constituents of human understanding and motivation, while the objective dimension is contributed by a revelation with the presumption of a divine presence or action behind it.”
\textsuperscript{22} Schowalter, “When Dinosaurs Return,” 2.
when children immerse themselves in the world of dinosaurs: an imagined past, given vividness by active wishes and persistent doubts, informs and illuminates the present.

A further value of ritual is its basis not only in subjective experience but in the communication and sharing of that experience. Chidester explores this dynamic in his discussion of how the experience of popular music in American culture serves as a form religious ritual. “Rock ‘n’ roll is a religion because it enacts an intense ritualized performance—the ‘collective effervescence,’ as Durkheim put it—which is generated by the interaction between ritual specialists and congregants…”23 The same interaction is analogous to that among children, teachers, parents, and paleontologists in the cultural dialogue concerning dinosaurs. The subjective experience of dinosaur lore is heightened by the public and formal exchange of information.

The imagination is a place where time stands still, a “lost world” freed from reality’s constraints. It is a space in which beliefs and fears, simmering unconscious desires and thoughts, are given symbolic expression, where the grammar of causality does not apply, other than as reference. From any sort of rational perspective, the imagination is always the imagining of the unimaginable, the conceiving of the inconceivable, an entry into a “lost world.” The imagining of a dinosaur requires a no less grand cognitive leap than the imagining of infinity or nothingness. Mitchell writes, “…the very idea of the dinosaur depends on our ability to conceive of… ‘deep

23 Chidester, Authentic Fakes, 34.
time,’ an unimaginably distant past…”24 This otherworldly space that dinosaurs evoke, what some call “dinotopia,” can, like sacred space, be both dystopic and utopic at once. The story of the dinosaurs, like the creation narrative in Genesis, is fundamentally linked to the dawn of time; as denizens of a “land before time,” dinosaurs, like Adam and Eve, are emblems of the world’s earliest hours. Both stories are, or can be understood, as matters of history, but also concern moments so distant from common perception as to require symbolic mediation.

Religious faith and children’s imaginative engagement with dinosaurs provide the contemporary symbols that permit the re-imagination of a distant past. “…The worlds of the dinosaurs and that of human beings are both real, the only difference between them being temporal,” writes Jose Luis Sanz, later adding that, “The dinosaurs are systematically present in the contacts between human beings and our distant past as described in fairy tales.”25 Children can effectively collapse the temporal gap between present and prehistory but may also require tangible “transitional objects” through which to do so. Dinosaurs provide a more effective bridge to the past than does the arcane and culturally conditioned symbology of Christian liturgy.26 If so, an imaginative engagement with dinosaurs may serve as a sort of “pre-faith.”

Although evolution represents a negation of the biblical creation, dinosaurs – those flagship representatives of evolutionary theory – are also part of a larger human enterprise to understand time. Mircea Eliade writes compellingly about this function

of religion: “Since the sacred and strong time is the time of origins…man will seek periodically to return to that original time.”

Though it would be a mistake to draw too close a parallel between religious ritual and dinosaur myth, the latter, with its way of collapsing time, helps address basic questions about humanity’s place in the cosmos in a way that religion accomplishes abstractly and programmatically.

The fusion of present reality with a distantly remembered past has a significant and relevant intellectual pedigree. The idea that human consciousness is a fusion of the present and a half-remembered past is a central idea in Eliade’s religious theory. He contends that the ideal and the real were long ago integrated in the consciousness of religious man; by creating an axis mundi (a sacred space) and repeating paradigmatic events that took place in illo tempore (the time of origin), religious man established both his individual existence and his place in the cosmos. In reactualizing and communicating with the sacred, man passed from one mode of being to another, from subject to object: “every human experience is capable of being transfigured, lived on a different transhuman plane.”

For religious man, the individual and his surroundings were a temporary fusion of the cosmic and the human – a moment Eliade locates at the beginning of time. This powerful synthesis of the earthly and the transcendent, of past and present, is associated with prehistory – the eternity in which religious ritual locates itself and in which time revolves and history forever repeats itself.

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28 The term “religious man” is Eliade’s.
29 Ibid, 171.
Eliade’s description of sacred time in religious ritual is reminiscent of the imaginative engagement with dinosaurs and its circularity and conflation of past and present. Sacred time, “…appears under the paradoxical aspect of circular time, reversible and recoverable, a sort of eternal mythical present.”\textsuperscript{30} For Eliade, religious ritual constitutes a non-linear dialogue that takes place outside of time: “…although it takes place in time, does not bear the burden of time.”\textsuperscript{31} Similarly, children engage with dinosaurs in a sort of \textit{axis mundi}, a space outside of everyday referents: “A child need not be old enough to read a map to travel back over time, and since dinosaurs lived far back in history, they can be made to seem to have nothing do with the child...”\textsuperscript{32} It is not necessary to accept Eliade’s view of mythical time as a higher truth lost to the processes of psychological and cultural development to find in it echoes of a child’s fascination with dinosaurs. It may be that, despite their disparities of content, the mode of thought that engage with God and dinosaurs are akin, making dinosaurs a useful vehicle through which to communicate certain tenets of evangelical Christianity—the Creation, the primordial sin, the resurrection, and the endtimes.

Eliade argues specifically that religious ritual “represents the reactualization of a sacred event that took place in a mythical past.”\textsuperscript{33} Experiencing dinosaur media can be a spiritual activity in which consciousness dissolves and becomes engaged in a narrative outside of present or historic time—imaginative play that involves dinosaurs is qualitatively different from play involving cowboys and princesses. Having defined sacred time as the “reactualization” of a mythical past, Eliade description of the act of

\textsuperscript{30} Ibid, 70.
\textsuperscript{32} Schowalter, “When Dinosaurs Return,” 5.
\textsuperscript{33} Eliade, \textit{The Sacred and the Profane}, 68-69.
reading is no less applicable to dinosaur play which, “projects [the child] out of his personal duration and incorporates him into other rhythms, makes him live another history.” The mythic architecture of dinosaurs allows children to locate themselves at the center of a re-created and deathless *illo tempore*. It is through the performance of this particular imagined past that children engage with the ahistorical.

Outside of “profane” time, dinosaurs continue to live, providing children with transcendent referents — elements necessary (in Eliade’s understanding) for connection with the sacred and for a sense of fulfillment of the ineluctable trajectory of linear history, the fatal arrow of time. To Eliade, the cyclical and the timeless, as embodied in religious ritual, are not products of human consciousness. On the contrary, they are aspects of deeper reality that underlies man’s belief in sequential time and teleological history. Dinosaurs, exempt from the rigidity of profane time, are gatekeepers to a cosmology that coincides with Eliade’s notion of sacred time and space. Sacred consciousness does not imply a rejection of the concrete and factual—a loss of objectivity—but rather an integrated consciousness that fuses an awareness of both of the individual and the universal. It is not necessary to accept at face value Eliade’s own belief in an underlying sacred reality to understand it as another mode of consciousness or to find in it reference to the religious state of mind as described as by figures as disparate as Christ, Lao-Tsu, Plato, and William James.

While Eliade’s strict dichotomy between sacred and profane suggests a way in which dinosaurs can provide a transcendent referent, his work does not account for the extent to which dinosaurs work in general to blur other dichotomies that typically

34 Ibid, 205.
35 In *The Myth of the Eternal Return*, Eliade refers to this as the “terror of history.”
structure human consciousness. Eliade’s reductionism opposes chronological order to the murky notion of “prehistory,” but does not address the role of religious ritual and myth in bridging the epistemological separation between real and ideal. John C. Linden explains how Geertz achieves a non-reductionistic sociological definition of religion and sacred myth and ritual: “Geertz insists that myth must function both pragmatically and mystically, and that in doing so it can be reduced neither to merely a strategy for societal maintenance nor an irrational and inexplicable mystery.”

Unlike Eliade, Geertz contends that sacred myths should be understood within their sociopolitical, religious, and historical contexts while, at the same time, maintaining their qualities as transcendent or universal. They can occupy the same spacetime as mundane facts and concerns and still provide the mythic resources that lend them religious value. Mythic narratives of dinosaurs—combining science, product placement, nationalism, and universal parable—are much the same blend of the quotidian and the timeless. Among the chief elements in dinosaur media, films have a special place: Mitchell explains that in these movies, “…dinosaurs are fully released from science (while maintaining their pseudoscientific legitimacy) into the realm of mass mythology and imagination.”

They bridge both worlds.

Another of the dichotomies with which religion makes its peace is that between the known and the unknown. Religion, more often than not, involves a terrifying “other” which both fascinates and disturbs in its expansive unknowability.

36 Geertz, The Interpretation of Cultures, 62.
Religious Studies scholar, and frequent critic of Mircea Eliade, Jonathan Z. Smith argues that religious myth and ritual have as much to do with cosmogonic chaos as they do cosmogonic order. As he writes, “…chaos is never, in myths, finally overcome. It remains a creative challenge, as a source of possibility and vitality over against, yet inextricably related to, order and the Sacred.”

While certain myths undoubtedly provide a sense of temporal order and spatial orientation, others serve to highlight the tensions and paradoxes inherent in human existence. Both the Genesis story, ending with the fall of humanity, and the dinosaur story, ending with extinction, can be seen as what Smith calls “dualistic creation myths” that describe as much the destruction of order as its formation. Such myths provide structures in which the mind frames its origins but introduces troubling and unsettling questions in the process. Dinosaurs, like Gods, frequently assume the role of colossal, fearsome, and destructive presences in the collective psyche.

In Religion and its Monsters, Timothy K. Beal explores “those places where representations of the monstrous and the religious converge,” positing “the monstrous as a form of theological expression.” Indeed, the foundation of the biblical evidence for dinosaur’s existence – Job 40’s description of a hulking “behemoth” which is “chief of the ways of God” – evokes just such a distinctive quality of mystery and terror. Beal describes this specter as “a kind of dangerous otherness within creation.”

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39 Ibid, 100.
41 Job 40:19
42 Beal, Religion and its Monsters, 50.
children and adults alike, it is not surprising that creationists should construe the behemoth of Job 40 as a dinosaur. Indeed, “The voice of the monster is the voice of theodicy,” writes Beal, suggesting that the monster of the Old Testament is neither behemoth nor leviathan, but the Creator himself.\(^\text{43}\) Gods, as much as monsters, are emissaries from that darkness into which humans fear to tread.

Monsters, embodiments of chaos and entropy, play to primal human fears of disorder and disunion. As Beal writes, “…the monster movie often remythologizes otherness as an embodiment of the forces of chaos that perpetually threaten the cosmos. As a reenactment of the mythic battle against chaos monsters, monster movie time is a kind of sacred time.”\(^\text{44}\) In battling monsters, heroes and heroines take up the eternal struggle to conquer the forces that would otherwise undo carefully constructed and ordered existence. The dinosaurs of monster movies are symbols of sacred chaos – the barbaric Titans beaten back and defeated by Zeus’ legions.\(^\text{45}\)

Although Gods were often the foes of monsters in classical mythology, they share the role of the dialectical other, the gaping unknown. Like Smith, Beal criticizes Eliade’s depiction of religion as the source of order in the cosmos, a view that ignores divine chaos as an agent of the sacred.\(^\text{46}\) Encounters with deities and demons are, alike, attempts to control the unknown. Gods and dinosaurs both do ontological work in that they define, by opposition, what it means to be human. As Ingebretsen notes, the place of monsters and otherworldly creatures off the “social map,” provides a

\(^{43}\) Ibid, 3.
\(^{44}\) Timothy K. Beal, “Behold Thou Behemoth: Imagining the Unimaginable in Monster Movies,” in Imag(in)ing Otherness: Filmic Visions of Living Together, ed. S. Brent Plate and David Jasper (Atlanta: Scholars Press, 1999), 197.
\(^{45}\) Beal, Religion and its Monsters, 161.
\(^{46}\) Beal, Religion and its Monsters, 9-10.
sharper understanding of human identity.\textsuperscript{47} Gods and dinosaurs are deified others, mythical entities that make their mysterious homes in regions “off the map,” in the space of unordered chaos.

Even those dinosaurs that serve as projections of desires and atavistic urges are representations of the feral and unknown, not merely the unconscious but nature herself, who, according to her mercurial whims, can either rejuvenate or destroy. As Sanz says, “The dinosaur symbolizes the unleashed and uncontrollable forces of nature that humankind has not found out how to master and that humankind therefore fears.”\textsuperscript{48} Rudolph Otto’s \textit{Mysterium tremendum et fascinans}, is an apt description of the state, simultaneously terrifying and fascinating, desired and feared, that both God and dinosaurs evoke. They are ambassadors of nature, in all its wild ferocity and dizzying vitality. As any visit to a paleontological exhibit soon suggests, Otto’s description of religious experience as an encounter with a monstrous but fascinating other echoes children’s encounters of dinosaurs: “The daemonic-divine object may appear to the mind an object of horror and dread, but at the same time it is no less something that allures with potent charm.”\textsuperscript{49} This duality of fear and enticement lies at the heart of dinosaurs’ appeal to children; the darkness and apprehension elicited by such ancient, enormous beasts is balanced by an otherworldly magnetism.

\textsuperscript{48} Sanz, \textit{Starring T.rex!}, 104.
The quality of transcendent experience that children find in their engagement with dinosaurs, the synthesis of dichotomies, past and present, fantasy and reality, life and death, is at least formatively religious and parallel to the experience of adult evangelicals within their faith. It is for this reason, more than any other, that evangelicals have summoned dinosaurs into the sacred space of their worldview. By siting dinosaurs within the Bible and biblical times, evangelical children’s media capture the baffling dynamism and paradoxical nature of dinosaurs in a way that secular media cannot. At best, the dinosaurs of secular media tend to reflect contemporary concerns, the drama of the family or the threat of technology, and make use of dinosaurs’ otherness as a metaphor for any and every fear or wish. Evangelicals give dinosaurs the full range of their synthetic talents. While the dinosaurs of the Bible are products of a cosmic order, as members of God’s creation, they are also chaos-producing monsters that disrupt that selfsame cosmic order. Evangelical uses of dinosaurs are religious in the broadest sense, but also relevant to the particulars of their faith.

The tension of past and present and the existence of a sacred time find a unique expression in the practices of the evangelical church. Figural interpretation in evangelicalism, in which early myths “typify” or prefigure later events while later events in turn fulfill the earlier myths, blurs the line between myth and history, now and then. As Susan Harding writes, “There is no distinction between biblical and historical stories here. Both are ‘events on earth’ related by figuration, enabling Christians to envision ‘the real world as formed by the sequence told by the biblical

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50 Beal, Religion and its Monsters, 27.
stories.”  

This dual-direction construction of history, reminiscent of Eliade’s circular conception of sacred time, means that the biblical text animates the present as well as the past.

The cultural apprehension of dinosaurs similarly blurs the lines between myth and history, informing the present through a mythically constitutive past. Michael Crichton’s use of real science in the story of **Jurassic Park**, and the appearance of dinosaurs in Cold War era monster movies, like **The Giant Behemoth**, are interpretive configurations of historical events. And, like the biblical exegesis of evangelicals, these mythical constructions use a reading of the past to provide shape and context for the present, while at the same time, serving up the present as a rebirth of the past. In the case of **Jurassic Park**, ramifications left the theater, as the film provoked a wave of technological progress in the re-synthesis of dinosaur DNA. Before **Jurassic Park**, developments in genetic science made a reality out of cloning. After **Jurassic Park**, further advances, inspired in part by the film, refined paleontologists’ view of the past and geneticists’ techniques in the present.  

Real science shaped the myth of **Jurassic Park** and the myth, in turn, changed science. For evangelicals, the Old Testament shaped the New, and the New Testament gave shape to the Old.  

Another formative duality in American evangelicalism is the mediation of public and private faith. In any organized religion in the U.S., there is necessarily a dynamic dialectical interaction between private faith and communal institutions, each one informing the other. From the subjective experience of conversion to the public

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ritual of baptism, the interplay of believer and church is one of constant shifts and changes. In the evangelical tradition, this tension is ever-present and especially significant. Harding defines conversion as “an inner transformation which quickens the supernatural imagination...Conversion transfers narrative authority—the Holy Spirit—to the newly faithful...”\(^{54}\) While much of the born-again tradition centers in the narrative authority of each believer, there is also emphasis on the community of believers and on the preacher as an authority figure whose power is as God-given as the Bible itself.\(^{55}\) The public authority of the pastor transfers back to the individual through the practice of “witnessing,” in which each congregant is imbued with the Holy Spirit. Nancy Ammerman writes, “Even within the church, the ability to ‘speak the Word’ is a gift given by God to laity as well as to the clergy.”\(^{56}\) The weight of religious authority shifts constantly from the individual to the institution of the church and back.

A swing of weight on an historic scale took place in the late 20\(^{th}\) century when the movement of evangelical reengagement in culture and politics brought private faith out beyond the walls of the church. The role that figures like Jerry Falwell and Pat Robertson have played in the public airing of what many had seen as private issues—abortions and the sex lives of presidents—brought the insular moral order of evangelicalism into the secular public sphere.\(^{57}\) Nonetheless, despite the “coming out” of evangelicalism since the 1980s, the church’s focus on a personal relationship

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\(^{54}\) Ibid, 34.
\(^{55}\) Ibid, 88.
with Christ has kept alive the tradition of individuals. “Fundamentalists see their religion neither as irrelevant to other institutional involvements nor as residing in their own individual solutions to life’s problems.”58 The constant dialogue between the public sphere, the organized church, and individual faith is an expression of God’s intent and the practice of faith.

Dinosaurs, as noted in Chapter 1, serve as symbols both of cultural identity and personal psychology, like the evangelical tradition, serving to mediate the personal and the social. Dinosaur fascination is a public phenomenon, a rite of passage for children in contemporary American society, but one intimately bound up in individual psychological development. Through dinosaur play, children learn how to live in society (dinosaurs teach children about social hierarchies and other concepts), while at the same time, working through personal psychological processes (such as the developmental dramas of latency).59

The dual nature of the dinosaur phenomenon is echoed in the interplay of church and believer in American evangelicalism. Dinosaur-driven power percolates down from the community of paleontologists to the individual child, as the child becomes a master of dinosaur-related facts. The process also works in reverse. Schowalter writes that children love “to correct adults on the more esoteric points of dinosaur lore. Indeed, it is not uncommon for some of the more adroit of these preschoolers to delight in quizzesing their teachers on obscure attributes of the horned Protoceratops or the armored Ankylosaurus.”60 Dinosaur facts provide scientifically-validated knowledge for children to employ as a social leveraging tool – facts are a

58 Ammerman, Bible Believers, 3.
60 Ibid, 3.
form of exciting social capital for emerging identities. Paleontologists are depicted variously as members of a rarified community, anonymous scientists in lab coats who roam museum halls or sit hunched over microscopes in laboratories, and as rugged, fiercely individualistic “Indiana Jones”-type figures who plunder tombs and haunted crypts.\(^{61}\) On its website for children, The American Museum of Natural History in New York encourages users to take paleontology into their own hands: “Searching for fossils is like traveling back in time to get a peek at Earth's past. You don't have to be a professional paleontologist to collect the remains of ancient life. Anyone can find fossils. All you need is some basic information, a good location, and a lot of patience.”\(^{62}\) It is not merely scientific fact that empowers children, it is also the enticing allure of paleontology itself, ringing with the power self-actualized knowledge.

The parallels of dinosaur science to evangelicalism, with its mixed stress on community ethos and individualistic self-determination, are unmistakable. Evangelical dinosaur media make full use of this and other religious aspects of dinosaur fascination. This use is relatively recent but has quickly taken on an air of liturgical permanence. Whatever its origins, the incorporation of dinosaurs into evangelical children’s media is not only a reaction to secular culture. Nor are dinosaurs simply a tool for evangelical indoctrination within the context of the church itself. They have become aspects of the faith, not only its ritual and its liturgy, but the very state of mind and being that evangelicalism presupposes.


Conclusion

Years before I found myself standing beside the animatronic dinosaurs in the lobby of the Creation Museum in Kentucky, I was a frequent visitor to the Theodore Roosevelt Rotunda in the lobby of American Museum of Natural History in New York. The cavernous marble halls echoed, as I am sure they do today, with the footsteps and shouts of children. In the center of this enormous space, as chaotic on any given school day as Grand Central Station at rush hour, one particular family drama never varies. In the world’s largest fossil display, a barosaurus, its bones wired up to a height of 50-feet above the rotunda floor, rears to protect its young from the fearsome jaws of two alosauri. I remember knowing that the barosaurus, in spite of its size, was an ungainly, placid herbivore, and I empathized with its desperate, perhaps futile, efforts to guard its helpless offspring from the carnivorous predators, with teeth beautifully evolved to tear and devour flesh. I had been brought to the museum in the interests of science (and probably in the interests of keeping me more generally occupied), but my fascination was hardly scientific. I was both terrified and fascinated by the spectacle. I was aware of the age of these bones—an awareness heightened, if anything, by my inability to comprehend rationally so vast a chronological distance. At the same time, I was caught up in the drama of the scene as though it were unfolding before my eyes. I was simultaneously witness to a monstrous myth and an empirical reality as palpable as bones. My stance as an
observer was a transcendent synthesis of intellect and emotion and what I saw was both entirely real and, at the same time, entirely beyond the grasp of my imagination.

Dinosaurs cause children to reflect upon themselves and their world. They shed a light on indelible human characteristics, and provide a structure, which refracts essential human quandaries through the prism of popular culture. American children have a sense of dinosaurs that makes uneasy bedfellows of science and fantasy, history and myth, past and present, subject and object. Children see reflected in dinosaurs the unimaginable span of their planet’s history and the depth of their own fears. Dinosaurs create a space in the minds of children where the fantastical and wondrous can find a comfortable union with the earthly and tangible. The denizens of Latin-rooted, geological epochs and of free-wheeling imaginations, dinosaurs are the ultimate symbols of both mortality and eternity. They teach children the most profound lessons in the paradoxes of what it means to be human.

Those who designed the fossil display at the American Museum of Natural History understood not only the empirical meanings of dinosaurs but also this power of dinosaurs to inspire a transcendent sense of mystery. Although the museum is renowned as a scientific institution, its visitors are not primarily scientists, and the museum itself, with this particular display as its centerpiece, is a synthesis of popular entertainment and scientific didacticism. The same is true of the Creation Museum. It, too, uses dinosaurs and the sense of wonder that they evoke in children to make scientific content palatable, although the science in this case is creationism rather than evolutionary biology.
A more fundamental difference, however, is that at the Creation Museum, a sense of mystery and awe is not merely a conduit to scientific curiosity; it is an element of the museum’s content. The museum’s tagline is “Prepare to Believe,” and its self-conscious goals are not only to provide empirical evidence for creation science but also to instill faith in its young visitors. The dinosaurs at the Creation Museum are neither markers in a causal evolutionary chain nor are they steps in a pedagogical methodology. The museum takes full advantage of the transcendent power of these creatures, an ability to sustain a synthesis between the actual and the unimaginable. It is for this reason that evangelicals have been able to turn the anathema of dinosaurs into a powerful aspect of their faith.

In secular media, dinosaurs are, inevitably, a means to an end. As fossils in museums, they provide evidence for evolutionary theory while the wonder that they evoke entices young minds in the eventual direction of empiricism. In films, books, and television they replicate social values and teach moral lessons. In evangelical Christian media, on the other hand, dinosaurs arrive in their full synthetic power, not only as evidence for scientific theory or as allegorical representations of human drama but as apprehensible avatars of God’s mystery.

In my visit to the Creation Museum, I understood the intentions of its curators but felt little of the awe the museum is intended to inspire. This may have had to do less with the museum itself and its displays than with my reasons for being there. I was there as an observer, in the guise of an empiricist, and to some extent, I have become one of the disenchanted scientists that natural history museums are, in part, intended to produce. Undoubtedly, too, I have lost the capacity for wonder that I had
as a child. For those of us in the field of religious studies, dinosaurs, and our mutable responses to them, teach us something about the paradoxical depths of our subject.
Appendix

A. Dinosaurs of Eden: Tracing the Mystery Through History, by Ken Ham¹

B. Why is Keiko Sick? by Stacia McKeever

C. The Great Dinosaur Mystery and the Bible, by Paul S. Taylor


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D. *D is for Dinosaur: A Rhyme Book and More*, by Ken and Mally Ham⁴

M is for Monster like the great dinosaur.
But how could he enter the ark through the door?
Well, many dinosaurs were really quite small;
The young ones, especially, were not very tall.

X is in excited, which Christians should be,
One day we know that heaven we’ll see.
There’ll be no more dying, or crying or pain;
For God our Creator, forever will reign.

The Three-In-One Multipurpose Family Book
- An Entertaining ABC Rhyme Book
- A Coloring Book
- A Sunday School, Home School, Christian School,
  and Home Devotional Teaching Book

"Read Me A Story, Daddy"
Authors’ Testimony

We have always had a tradition in our home
of praying and reading the Scriptures each
nighting with our children, and having
family devotions each evening. We have
attempted to purchase and use as much
good children’s material as possible, in order
to have our five dear children in the things
of the Lord from the day they were born.

Unfortunately today, many parents feel
are being lost army to the seduction of
Evolution. Young children spend countless
hours in front of a television set, watching
humanistic evolutionary programs.

It has been our burden to produce quality
books that children and parents can use
together, not only to learn about the Bible
and God’s world, but also to be able to
shape the Christian faith against the
philosophies of evolutionary ideas that are so
conclusive in our society.

The Scripture plainly teaches that the father
is to be the spiritual head of the family, and
"The father to the children shall make known
the truth." (Deuteronomy 6:7)

We believe this book provides a unique
opportunity for parents, and particularly
fathers, to spend time with their children,
and teach them the wonderful truths of
creation using those fascinating creatures—
the dinosaurs.

We have tried to make this book entertaining,
informative, and colorful. We envision it as a
rhyme book, so we have found that most
children enjoy learning and enjoying rhymes.

We hope this will be a book that parents as
well as children will love. It should stimulate
family togetherness, and encourage the
reading of books, rather than the watching
of television.

It is our prayer that this book will cause
children to respect more and more—
"Please, read me a story, Daddy."

Ken and Melinda Knox
E. The Creation Adventure Team: A Jurassic Ark Mystery

F. The Riddle of the Dinosaurs

G. The X-NILO Show

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