THOMAS JEFFERSON, CRYPTOZOOLOGIST: THE INTERSECTION OF SCIENCE AND FOLKLORE IN EARLY AMERICA

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ABSTRACT

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Monstrous animals occupied a prominent role in the imaginations of the 18th and early 19th century European settlers in what would become the United States of America. This preoccupation with monsters among early Americans is clearly reflected in the life and career of Thomas Jefferson. A close examination of Jefferson's *Notes on the State of Virginia* (1785), scientific papers prepared for the American Philosophical Society, documentation relating to the Louisiana Purchase, financing of the Louis and Clark Expedition, and personal correspondence all reveal a persistent obsession with living mastodons, giant moose, and colossal lions among other curious creatures. As a key American representative of the western intellectual tradition known as the Enlightenment, Jefferson's conviction that the North American interior harbored such monstrous forms of undiscovered animal life may seem counterintuitive as one would presume Jefferson would be nothing but skeptical of the reality of fantastic beasts. However, Jefferson saw evidence for the reality of such hitherto unclassified species of megafauna in an amalgamation of fragmentary fossil remains, euhemerist interpretations of Indigenous American legends, and tall tales told by early pioneers; the same type of ephemeral evidence marshaled by today's cryptozoologists to prove the existence of such creatures as Bigfoot and the Loch Ness Monster. It is with this later observation in mind that this dissertation seeks to reframe Jefferson as a pioneering cryptozoologist while also considering the important role which cryptozoological monster lore has played in the formation of American culture.

This dissertation is dedicated to Madison Cummings for her boundless love, support, and encouragement. For not only being the foundation upon which the last four years have resided but for the last ten years by my side.

To my mother, Deborah, for taking me to the library as a child to check out my first books on cryptozoology. To my father, Phillip, for watching old monster movies with me. And to my sister, Christa, for always being nearby.

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INTRODUCTION

In 1993 *The Scientist*, a trade magazine for life science professionals, declared cryptozoology, the putative "science of hidden animals," a dying discipline. Cryptozoologists, known for their obsessive pursuit of such legendary beasts as Bigfoot and the Yeti, the Loch Ness Monster and Chupacabra – collectively referred to as cryptids – were soon to be as elusive as the very creatures they sought.[1] Thirty years later, some Skeptics still insist that cryptozoology is in its death throes, despite all evidence to the contrary.[2] For while it is true that no cryptozoologist has yet bagged a Bigfoot or netted a Nessie, the subject remains perennially popular.

According to a 2007 Baylor University study, roughly 13% of Americans believe in the flesh-and-blood reality of such creatures as Bigfoot and the Loch Ness Monster.[3] A 2018 study by Chapman University saw that number climb to 21%.[4] As a result cryptozoology commands an impressive share of the public's attention in the form of not only popular books and articles on the topic but also cryptozoologically-themed "reality" TV shows like *Monster Quest* (2007-2010) and *Finding Bigfoot* (2011-2018); the latter of which ran for nine seasons and 100 episodes, despite no one ever locating a sasquatch.[5]

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[1] Paul Mccarthy, "Cryptozoologists: An Endangered Species," *The Scientist* (Jan. 10, 1993): https://www.the-scientist.com/cryptozoologists-an-endangered-species-59831

[2] Benjamin Radford, "Is Bigfoot Dead?", *Skeptical Inquirer* (Jan/Feb. 2024), 31-38. The term Skeptic is capitalized throughout in reference to those individuals who self-identify as Skeptics and are members of the Skeptical Movement; a contemporary social movement based on the ideals of Scientific Skepticism which insists that only claims backed by empirical evidence be recognized as legitimate. See David J. Hufford, "Traditions of Disbelief," *New York Folklore* Vol. 8 no. 03 (Winter 1982): 47-55.

[3] "Belief in Bigfoot" (Baylor Religion Survey, Wave 2, 2007), *Association of Religion Data Archives* (n.d.): http://www.thearda.com/quickstats/qs_43.asp.

[4] "Paranormal America" (Chapman University Survey of American Fears Wave 5, 2018) Chapman University (Oct. 16, 2018): https://blogs.chapman.edu/wilkinson/2018/10/16/paranormal-america-2018/

[5] Boria Sax, "Not Finding Bigfoot," *OUPblog* (Oct. 19, 2017), https://blog.oup.com/2017/10/not-finding-bigfoot/. Cf. Sharon Hill, *Scientifical Americans: The Culture of Amateur Paranormal Researchers* (Jefferson, NC: McFarland, 2017), 61-62.

Cryptids have likewise flourished in the age of the internet and social media, inspiring artists on DeviantArt and Etsy, and racking up billions of views on YouTube, TikTok, and Instagram.[6] Some of the most popular podcasts (including one hosted by actor Paul Giamatti) regularly deal with cryptozoology, while the subject has also proven the source of endless impassioned debates on message boards like Reddit and websites like Wikipedia.[7]

But cryptozoology is not confined only to the printed page or television and computer screens. In 2022, more than 25,000 visitors attended the annual Mothman Festival in Point Pleasant, West Virginia, while the summer of 2023 saw hundreds descend upon Loch Ness for Quest Weekend; the largest volunteer-based search for Nessie in fifty years.[8] Indeed cryptids have become a source of capital for many, leading scholar Jeffery Kripal to wryly observe that even "if elite intellectuals […] don't buy this stuff, almost everyone else does, literally."[9]

Notwithstanding pronouncements by Skeptical Cassandras, cryptozoology shows no signs of disappearing which is why academic engagement with the subject is needed now more than ever. However, despite its obvious popularity and prevalence, cryptozoology is a subject seldom touched upon in academia. This is largely due to two factors. The first is what religious studies scholar Jason Ā. Josephson-Storm calls "the myth of disenchantment"; the conviction

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[6] Sharon Hill, "The Power of CryptidTok," *Modern Cryptozoology* (July 30, 2022): https://moderncryptozoology.wordpress.com/2022/07/30/the-power-of-cryptidtok/

[7] Stephen Harrison, "Why Wikipedia Is So Tough on Bigfoot," *Slate* (Feb. 13, 2023): https://slate.com/technology/2023/02/wikipedia-bigfoot-cryptozoology.html?utm_medium=social&utm_Campaign=traffic&utm_source=article&utm_content=web_share&fbclid=IwAR21ru2--Rkt9LejVDBbGwkEoNehxZfTdlWwIX3YzVNnJa399NN8aoJu4cU

[8] David Sibray, "Three facts about West Virginia's Mothman legend few know," *West Virginia Explorer* (Feb. 28, 2023): https://wvexplorer.com/2023/02/28/three-facts-mothman-point-pleasant-west-virginia/ and Kylie MacLellan, "Hundreds join largest Loch Ness monster hunt in 50 years in Scotland," *Reuters* (Aug. 27, 2023): https://www.reuters.com/world/uk/hundreds-join-largest-loch-ness-monster-hunt-50-years-scotland-2023-08-27/. Cf. Ronan O'Connell, "How Nessie and the Yeti birthed a global cryptid-chasing industry," *National Geographic* (Nov. 29, 2022): https://www.nationalgeographic.com/travel/article/cryptid-tourism-loch-ness-monster-yeti-lucrative-industry

[9] Jeffery J. Kripal, *Authors of the Impossible*: *The Paranormal and the Sacred* (Chicago, IL: University of Chicago Press, 2010), 31.

that the inexorable march of scientific progress has, or will soon, result in the "capitalist societies of Western Europe and North America" finding themselves in a "disenchanted" modernity bereft of the literal belief in gods, monsters, and magic among all except perhaps its most credulous members.[10] The second is the fact that cryptozoology, despite its presentation as a science by both advocates and detractors, has consistently failed to adhere to the rigors of institutionalized science, leaving one to wonder what exactly cryptozoology really is?[11] With so little objective engagement with the subject, much of the discourse surrounding cryptozoology has primarily been framed as that of a conflict between believers and Skeptics.

The aim of this dissertation then is twofold. In the first part we will move beyond such polemics and consider an alternative approach to cryptozoology; one which reconceptualizes the field as a particular genre of folklore rather than a failed science or the incipient backlash of a disenchanted modernity. To accomplish this, we will approach cryptozoology from a historical and etic standpoint, considering what cryptozoologists do rather than how they might present themselves. Because the corpus of cryptozoology is too big to be covered in its entirety here, a single example will have to suffice. Historians attempting to trace the origins of cryptozoology typically locate the practice's beginnings in the mid-20th century and the Belgian-French zoologist Bernard Heuvelmans (1916-2001) who was regarded in his own lifetime as "the Father of Cryptozoology."[12] Likewise Heuvelmans' 1955 book *On the Track of Unknown Animals* is

[10] Jason Ā. Josephson-Storm, *The Myth of Disenchantment: Magic, Modernity, and the Birth of the Human Sciences* (Chicago: Chicago UP, 2017), 4-5.
[11] Daniel Loxton and Donald R. Prothero, *Abominable Science: Origins of the Yeti, Nessie, and Other Famous Cryptids* (New York: Columbia UP, 2013), 332.
[12] W. Scott Poole, *Monsters in America: Our Historical Obsession with the Hideous and the Haunting* (Waco: Baylor UP, 2011), 134 and Brian Regal, *Searching for Sasquatch: Crackpots, Eggheads, and Cryptozoology* (New York: Palgrave Macmillan, 2011), 18–19.

regarded as the cryptozoologist's bible.[13] Due to his influence upon the field Heuvelmans will serve as a repeat reference point going forward.

The second part of this dissertation will be to demonstrate one of the many provocative, penetrating, and productive questions that this alternative approach to cryptozoology makes possible; one with especial relevance to the field of American Culture Studies. Namely how long has this particular genre of folktale – the cryptozoological monster story – been practiced in North America and what is its cultural relevance? It is the assessment of this author that this tradition goes back at least as far as the very founding of the United States of America. Moreover, this dissertation will demonstrate that this type of folktale was of incredible importance to the conception and formation of American national identity, as one of the foremost purveyors of such monster lore in 18th century America was none other than the man often described as the principal architect of the American experiment: Thomas Jefferson (1743–1826).

Towards the end of his life Heuvelmans began compiling a list of his cryptozoological precursors. At the very beginning of this genealogy Heuvelmans affixed a surprising name, that of Jefferson.[14] As justification Heuvelmans cited Jefferson's 1799 technical paper for the American Philosophical Society on the hypothetical existence of an enormous North American variant of the African lion, a paper which Heuvelmans characterized as "a perfect example of the cryptozoological approach."[15] Evidently untroubled by the fact, as we will see, that all of Jefferson's conjectures about this animal were wrong.

To this end the second part of this dissertation will offer the first sustained examination of Thomas Jefferson as one of the pioneers of the cryptozoological folktale. Previous scholars

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[13] Bryan Sykes, *Bigfoot, Yeti, and the last Neanderthal: A Geneticist's Search for Modern Apemen* (Newburyport, MA: Disinformation Books, 2016), 68.
[14] Bernard Heuvelmans, "The Birth and Early History of Cryptozoology," *Cryptozoology* Vol. 3 (1984), 3.
[15] Bernard Heuvelmans, *The Natural History of Hidden Animals* (New York: Routledge, 2007), 100.

who have explored this aspect of Jefferson's life and work have tended either to minimize its overall importance or contextualize it within Jefferson's broader interest in Enlightenment era science – specifically the emerging field of vertebrate paleontology – in what would seem to be an attempt to occlude its stranger elements. *However, the fact of the matter is that Thomas Jefferson hunted monsters.* His quarry included not only 2,000-pound lions but carnivorous mastodons and a moose so large a man could walk underneath it.

The story of Thomas Jefferson's quixotic quest for this hypothetical American megafauna has never been told in full before but rather more often only alluded to by those researchers interested in Jefferson's involvement with science. The earliest of these accounts is paleontologist William Berryman Scott's article "American Elephant Myths" published in the April 1887 issue of *Scribner's* magazine. Scott discusses Jefferson's rivalry with Buffon, his interest in mastodon fossils, makes passing reference to the megalonyx, and notes Jefferson's belief that such animals could possibly be found alive in the American interior as well as his use of First Nations myths to buttress that position.

The next account would come 55-years-later from celebrated paleontologist George Gaylord Simpson in the form of a long essay titled "The Beginnings of Vertebrate Paleontology in North America" published in the *Proceedings of the American Philosophical Society*. While technically meticulous and an important resource, Simpson was primarily interested in what early fossil hunters got right rather than what they got wrong (as judged by the thinking of his time) which led him to downplay many of Jefferson's endeavors.

Next was historian Julian P. Boyd's article "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory" for the Oct. 1958 *Proceedings of the American Philosophical Society* which offered the first in-depth look at Jefferson's interest in the

megalonyx; a giant ground sloth which Jefferson initially misidentified as a huge cat. This is a subject which has been subsequently expanded upon by Keith Thomson in *The Legacy of the Mastodon: The Golden Age of Fossils in America* (2008) and by Juan Pimentel in *The Rhinoceros and the Megatherium: An Essay in Natural History* (2017).

The 1990s and early 2000s would see the rumors of Jefferson's monster hunts resurface via a number of books including: Silvio A. Bedini's *Thomas Jefferson: Statesman of Science* (1990), Claudine Cohen's *The Fate of the Mammoth: Fossils, Myth, and History* (1994), Mark V. Barrow Jr.'s *Nature's Ghosts: Confronting Extinction from the Age of Jefferson to the Age of Ecology* (1994), W.J.T. Mitchell's *The Last Dinosaur Book: The Life and Times of a Cultural Icon* (1998), Paul Simonin's exhaustive *American Monster: How the Nation's First Prehistoric Creature Became A Symbol of National Identity* (2000), Stanley Hedeen's *Big Bone Lick: The Cradle of American Paleontology* (2008), and Lee Alan Dugatkin's *Mr. Jefferson and the Giant Moose: Natural History in Early America* (2009) which finally filled in the missing middle section of Jefferson's exploits.

However, none of the aforementioned studies make the connection between Jefferson's activities and those of modern cryptozoologists. To date I have come across only a few works which made the connection between Jefferson and cryptozoology, and again only partially. On the subject of the megalonyx, Allen A. Debus' *Prehistoric Monsters: The Real and Imagined Creatures of the Past That We Love to Fear* (2010) remarks that "Jefferson was a contemporary cryptozoologist," while a footnote in Daniel Loxton and Donald R. Prothero's *Abominable Science: Origins of the Yeti, Nessie, and Other Famous Cryptids* (2013) describes "Jefferson's speculation" that "mammoths" may have found refuge in the American interior as an early

"example of cryptozoology."[16] Historian W. Scott Poole's *Monsters in America: Our Historical Obsession with the Hideous and the Haunting* (2011) makes several brief mentions of Jefferson's monster obsession and does identify Jefferson as something akin to a pioneering cryptozoologist. Especially notable is Poole's linking of Jefferson to the infamous Gloucester Sea Serpent of Massachusetts which was sighted some 200 times between 1817 and 1818. Poole's discussion of this fact is tantalizingly brief making it fortunate that Wayne Soini has built a probable case for connecting Jefferson to this aquatic cryptid in his 2010 book *Gloucester's Sea Serpent*.

Among the most important, and controversial, works related to this topic is that of Stanford University classicist Adrienne Mayor; author of the books *The First Fossil Hunters* (2000) and *Fossil Legends of the First Americans* (2005) which suggest that the discovery of the fossilized bones of Mesozoic and Pleistocene megafauna inspired and/or served to confirm (Mayor is frustratingly ambiguous on this point) the existence of the many fantastic monsters that populate both Hellenistic and North American First Nation myths.[17] Without her work in *Fossil Legends of the First Americans* it would not be possible to tell the story of Jefferson as the first cryptozoologist. Nevertheless, Mayor's speculations, which have proven tremendously influential and now regularly appear in both popular and semi-technical literature dealing with paleontology, should be regarded as highly suspect for reasons which will be elaborated upon later.[18] The caveat here then is that while Mayor's data will be thoroughly mined, her conclusions will also be thoroughly critiqued.

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[16] Allen A. Debus, *Prehistoric Monsters: The Real and Imagined Creatures of the Past That We Love to Fear* (Jefferson, NC: McFarland, 2010), 40 and Loxton and Prothero, 371-372, no. 105.

[17] For a critical look at Mayor's claims and their connections to cryptozoology see Sherrie Lynne Lyons, *Species, Serpents, Spirits, and Skulls: Science at the Margins in the Victorian Age* (New York: SUNY Press, 2009), 179-80.

[18] A particularly striking example of the positive reception of Mayor's ideas among paleontologists is David A.E. Spalding and William A.S. Sarjeant's "Dinosaurs: The Earliest Discoveries" in *The Complete Dinosaur*, ed. James O. Farlow, Michael K. Brett-Surman, and Thomas R. Holtz (Bloomington, IN: Indiana UP, 2012), 3-23. The first edition of this same book (pub. 1997) made no claims regarding the putative link between fossils and mythology, instead simply asserting that dinosaurs were unknown before the early 19th century. Even more striking Mayor's

Finally, while there is no question that labeling Jefferson a cryptozoologist (a word that did not exist until the 1920s) is anachronistic, it is the contention of this author that the benefits of looking at Jefferson as such a practitioner more than makes-up for any blurring of the linguistic timeline as doing so can provide us with valuable insight into the reasoning and impetus behind cryptozoology as well as what motivates some people to go monster hunting. As Professor of English Jeffrey Jerome Cohen, in his landmark 1996 essay "Monster Culture (Seven Theses)," which laid the groundwork for "a new subfield of culture studies, tentatively cohering around the label 'Monster Theory,'" demonstrated, by studying monsters we can learn important truths about their corresponding cultures.[19] Jefferson has been described as the man whose ideas most profoundly shaped the United States of America for future generations. Therefore, by thinking about Jefferson as a cryptozoologist and analyzing the North American monsters which he sought, we can gain fresh insights into America as Jefferson imagined it.

ideas have inspired an entire cottage industry of popular books which make identical and equally unsustainable claims about the origins of various mythical monsters, see Matt Kaplan, *The Science of Monsters: The Origins of the Creatures We Love to Fear* (New York: Scribner, 2013).

[19] Jeffrey Jerome Cohen, "Monster Culture (Seven Theses)," *The Monster Theory Reader*, ed. Jeffrey Andrew Weinstock (Minneapolis, MN: University of Minnesota Press, 2020), 38 and William M. Tsutsui, *Godzilla on My Mind* (London: Palgrave MacMillan, 2004), 110. Cf. Jeffrey Andrew Weinstock, "Introduction: A Genealogy of Monster Theory," *The Monster Theory Reader*, ed. Jeffrey Andrew Weinstock (Minneapolis MN: University of Minnesota Press, 2020), 1-36.

CHAPTER I: CRYPTOZOOLOGY: SCIENCE AND FOLKLORE

1.1: Cryptozoology: Methodological Considerations

Strictly speaking there is nothing about the central claim of cryptozoology that might be regarded as scientifically improbable, as there are certainly numerous species of animal life on this planet unknown by professional zoologists but likely to be recognized by those people who live in close proximity to them.[20] In fact, new species turn up every year. However, the majority of these are diminutive and mundane animals – new species of insect or small fish, reptiles, birds, and mammals – rather than the mythicized monsters preferred by cryptozoologists. Bernard Heuvelmans even went so far as to claim that the discovery of "a new frog" or "a new genus or whole family of fish" would not count as a "cryptozoological find." [21] Perhaps most strikingly Heuvelmans also categorically rejected the need for cryptozoologists to engage in such "routine zoological tasks" as "blind sampling, exploratory tests or processes of control."[22] These are the very activities that often lead to the discovery of new species. According to Heuvelmans cryptozoologists should reserve their interests only for those creatures that are "paradoxical, unexpected, striking, emotion-generating, and thus susceptible to mythification."[23] For Heuvelmans cryptozoologists were only concerned with what is commonly termed megafauna. The more monstrous the better.

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[20] Michael D. Gordin, *On the Fringe: Where Science Meets Pseudoscience* (Oxford: Oxford UP, 2021), 50. Cf. Jeb J. Card, "Steampunk Inquiry," *Lost City, Found Pyramid: Understanding Alternative Archaeologies and Pseudoscientific Practices* (Tuscaloosa, AL: University of Alabama Press), 23-24.

[21] J. Richard Greenwell, "Interview: The Father of Cryptozoology Gives His Views on Many Matters," *The ISC Newsletter* Vol. 3, No. 3 (August 1984), 2 and Heuvelmans, *The Natural History of Hidden Animals* (2007), 33. Cf. Bernard Heuvelmans, "What Is Cryptozoology?," *Cryptozoology* Vol. 1 (Winter 1982), 7-8. Elsewhere Heuvelmans says that "vertebrata should above all be the focus of attention to the cryptozoologist." Heuvelmans, *The Natural History of Hidden Animals*, 43.

[22] Heuvelmans, *The Natural History of Hidden Animals*, 141-42.

[23] J. Richard Greenwell, "Interview: The Father of Cryptozoology Gives His Views on Many Matters," *The ISC Newsletter* Vol. 3, No. 3 (August 1984), 2.

Heuvelmans' conception of cryptozoology was highly capricious. For example, he was unclear about whether formal academic training was a prerequisite for undertaking cryptozoological investigations.[24] This has resulted in contemporary cryptozoology consisting of a mixture of mostly amateur researchers – who lack any formal academic training in those fields that would intersect with their interests such as zoology, paleontology, or evolutionary biology – along with some accredited scientists, such as those who organized the International Society of Cryptozoology (ISC) in January of 1982.[25]

But while mercurial about most aspects of cryptozoology, Heuvelmans was unequivocal about others. One aspect of cryptozoology which Heuvelmans was absolutely consistent about was the significance which "the careful analysis of myth, legends, and folk-tales of all cultures and all races" played in the discipline's "search [for] 'monsters.'"[26] The centrality of "myths, legends, and folk-tales" to cryptozoology related directly to what Heuvelmans considered the primary task of cryptozoologists, namely the "demythifying" of such narratives in the hope that doing so would "help make the inventory of the planet's fauna as complete as possible."[27]

This "demythifying" aspect of cryptozoology was essential for Heuvelmans who took pains to stress that "cryptozoology is not an arcane or occult zoology, as some, in an attempt to discredit it, have suggested."[28] Cryptozoologists are not in the business of hunting down paranormal or

[24] Ibid., 2-3 and Bernard Heuvelmans, "The Sources and Method of Cryptozoological Research," *Cryptozoology* Vol. 7 (1988), 1. [Abstract].
[25] Regal, *Searching for Sasquatch*, 168 and 173; Loren Coleman and Jerome Clark, *Cryptozoology A to Z: The Encyclopedia of Loch Monsters, Sasquatch, Chupacabras, and Other Authentic Mysteries of Nature* (New York: Simon & Schuster, 1999), 119; Jerome Clark, *Unexplained! New Edition* (Canton, MI: Visible Ink Press, 1999), 248-49; and Kendrick Frazier, "Group in Quest of 'Unexpected' Animals'," *Skeptical Inquirer* (Summer 1982), 11.
[26] Heuvelmans, "The Birth and Early History of Cryptozoology," 14.
[27] Heuvelmans, "What is Cryptozoology?," 1 [Abstract].
[28] Heuvelmans, "What is Cryptozoology?," 1.

supernatural entities.[29] Rather their quarry are flesh-and-blood animals who are only regarded as monsters "because of their extravagant and terrifying traits" which have caused them to be "unconsciously mythicized by our emotions… distorted and enhanced to fit into the pattern of sundry everlasting archetypes as reflecting our fantasies, fears, cravings, prejudices, or inner conflicts."[30] By stripping away "those attributes which have been borrowed from their mythological models" Heuvelmans maintained that cryptozoologists could reveal the previously unknown animal hidden beneath generations of monster lore.[31]

Heuvelmans also spilt a considerable amount of ink railing against the perceived tyranny of the International Commission on Zoological Nomenclature (ICZN) for its alleged refusal to allow the assigning of formal scientific names to animals for which no holotype (i.e., a body) has been obtained.[32] Scottish malacologist and ICZN board member David Heppell (1937–2004) took time to explain to Heuvelmans, via a long letter printed in the second volume of *Cryptozoology*, that the ICZN maintains no such policy.[33] The ICZN does however categorically reject animals which can only be demonstrated to exist hypothetically.[34] And because cryptozoology only deals with animals found in myths, legends, and folklore it is not possible to classify them as anything other than hypothetical megafauna making this yet another reason – perhaps the primary reason –

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[29] There are, and have always been, those who maintain that monsters like Bigfoot are supernatural in nature. However, these same proponents also often take pains to distance themselves from cryptozoology. See Joshua Cutchin and Timothy Reener, *Where the Footprints End: High Strangeness and the Bigfoot Phenomenon*, Vol. 1: The Folklore (Independently published, 2020), ix-xiii.

[30] Heuvelmans, "The Birth and Early History of Cryptozoology," 2. Cf. Bernard Heuvelmans, "On Monsters: Or How Unknown Animals become Fabulous Animals," *Fortean Times* no. 41 (Winter 1983), 43-7 and "The Metamorphosis of Unknown Animals into Fabulous Beasts and of Fabulous Beasts into Known Animals," *Cryptozoology* Vol. 9 (1990), 1-12.

[31] Heuvelmans, "The Sources and Method of Cryptozoological Research," 12.

[32] Heuvelmans, "What is Cryptozoology?," 3-7. It should be noted that this misunderstanding is still rampant among cryptozoologists today.

[33] David Heppell, "Parataxa and Hypothetical Concepts – Their Irrelevance to Cryptozoology," *Cryptozoology* Vol. 2 (Winter 1983), 147-54.

[34] Lorenzo Rossi, "A Review of Cryptozoology: Towards a Scientific Approach to the Study of 'Hidden Animals'," *Problematic Wildlife: A Cross-Disciplinary Approach* (2015), 578.

why, as noted by historian of science Lorenzo Rossi, that cryptozoology cannot be considered a legitimate scientific enterprise.[35]

In addition, whether undertaken by amateurs or credentialed zoologists, cryptozoology as practiced consistently fails to adhere to the rigors of modern institutionalized science. Since the dissolution of the ISC in 1998 peer-reviewed cryptozoological journals have been few and far between, meaning that the majority of cryptozoological material is published for a popular audience rather than experts.[36] Moreover, because they lack access to the latest scientific findings cryptozoologists routinely make use of outdated scholarship and theoretical models, which they will then doggedly adhere to, assuming it supports their contentions.[37] For all these reasons, and more, it is not possible for one to obtain a degree in cryptozoology at any level as no accredited institution offers such a course of study.[38] This then explains academia's decided reticence to engage with cryptozoology issues on a substantive level. But only partially.

[35] Ibid. Heuvelmans's emphasis on mythical and folkloric monsters was noted by ISC board member and paleobiologist Leigh Van Valen early on, leading him to suggest that for the sake clarity cryptozoology should really be define as "the study of […] animals of folklore." Leigh Van Valen, "Cryptozoology, Paleontology, and Evidence," *Cryptozoology* Vol. 2 (Winter 1983), 156.
[36] The ISC published a quarterly newsletter and an annual academic journal, titled *Cryptozoology*, which science writer David Quammen described as "intriguing, diverse, and mainly quite sane." David Quammen, *The Flight of the Iguana: A Sidelong View of Science and Nature* (New York: Scribner, 1988), 93. Cf. For a short history of peer reviewed cryptozoological journals see John Conway, C.M. Kosemeb, and Darren Naish, *Cryptozoologicon* Vol. 1 (Lulu, 2013), 8.
[37] Card, "Steampunk Inquiry," 19.
[38] Hill, *Scientifical Americans*, 66.

1.2: Cryptozoology and the Myth of Disenchantment

The notion that cryptozoological conjectures are the sole province of those who are either poorly educated or overly credulous is symptomatic of the fact that cryptozoology is often conceptualized as arising from the incipient backlash of the "capitalist societies of Western Europe and North America" finding themselves in a "disenchanted" modernity.[39] Such a conceptualization owes a great deal to German sociologist Max Weber who argued at the end of the 19th-Century that the literal belief in gods, monsters, and magic had all but disappeared, or soon would, from the western world thanks to the inexorable march of scientific progress. Adherents of this schema thusly interpret movements like cryptozoology as an attempt by the romantically inclined to escape from what Weber memorably called "the iron cage of modernity."[40]

The conviction among contemporary academics that modernity is fundamentally disenchanted is adequately summed up in Canadian philosopher Charles Taylor's bold 2011 declaration that "almost everyone can agree that one of the big differences between us and our ancestors of five hundred years ago is that they lived in an 'enchanted' world, and we do not..."[41] In fact, such convictions are so widespread that they tend to function as unspoken assumptions rather than overtly articulated methodological statements. An example with relevance to cryptozoology, and this dissertation in particular, can be seen in this passage from Richard Conniff's otherwise excellent overview of the natural sciences during the time of Jefferson, *The Species Seekers* (2011).

> Even educated people [in the 18th century] still inhabited a jabberwocky world in which monsters abounded and one species could slide uncertainly into another. Our own

[39] Josephson-Storm, *The Myth of Disenchantment*, 4-5.
[40] Ibid., 284–86.
[41] Josephson-Storm, *The Myth of Disenchantment*, 4.

> ancestors, just eight or ten generations ago, still thought that dog-headed humans lived in distant lands.[42]

Note the implicit assumption in Conniff's statement that today such beliefs would be decidedly beyond the pale. As a result, Conniff would likely be surprised to learn that a great many modern Americans evidently still believe in the existence of *cynocephali* or "dog-headed humans;" a very popular subject in contemporary cryptozoology. Only now such monsters are no longer confined to "distant lands" but are rather widely reported as being encountered throughout the American Midwest in such places as southern Wisconsin, central Michigan, and the town of Defiance, Ohio.[43]

Which surely gives the lie to the notion that we live in a disenchanted modernity. As Columbia College Chicago Professor of Philosophy Stephen T. Asma writes, in his 2009 book *On Monsters*, "the idea that we previously believed in monsters but now we don't is a comforting illusion." Asma points to his own student's 'obsession' with cryptozoology as just one example.[44] Folklorist David J. Puglia, in the introduction to an even more recent edited volume, concurs observing that while "scientific progress and technological advancement were supposed to kill off beliefs in monsters, ghosts, and the supernatural, ushering in an era of rationality and

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[42] Richard Conniff, *The Species Seekers: Heroes, Fools, and the Mad Pursuit of Life on Earth* (New York: W.W. Norton & Company, 2011), 2.

[43] The foremost chronicler of modern-day American cynocephali was, until recently, Wisconsin based cryptozoologist Linda Godfrey (1951-2022) whose many books include: *The Beast of Bray Road: Tailing Wisconsin's Werewolf* (Prairie Oak Press, 2003), *The Michigan Dogman: Werewolves and Other Unknown Canines Across the U.S.A.* (Unexplained Research Publishing Company, 2010), *Real Wolfmen: True Encounters in Modern America* (Penguin, 2012), and *American Monsters: A History of Monster Lore, Legends, and Sightings in America* (Tarcher Perigee, 2014). For an etic perspective see journalist Tea Krulos's article "The Accidental Werewolf Chronicler," *Fortean Times* no. 329 (July 2015): 38-41. For a historical overview of the phenomenon see Matt Salusbury, "A Short History of Dog-Headed Men," *Fortean Times* no. 286 (April 2012): 32-7 and/or David Gordon White's *Myths of the Dog-Man* (University of Chicago Press, 1991). Skeptics and academics have thus far contributed little to the literature on this phenomenon with sole exception of Sam George's recent essay "Wolves in the Wolds: Late Capitalism, the English Eerie, and the Weird Case of 'Old Stinker' the Hull Werewolf," *Gothic Studies* Vol. 21 no. 1 (2019): 68–84.

[44] Stephen T. Asma, *On Monsters: An Unnatural History of Our Worse Fears* (Oxford University Press, 2009), 279-79.

enlightenment" the reality of the situation is that "scientific and technological progress hasn't sounded the death knell for monsters; it has reared and nurtured them."[45] Puglia goes on to cite British folklorist Karl Bell's quip that the only thing more difficult to eradicate than the public's persistent belief in ghosts and monsters, is academics' self-assurance that such beliefs do not exist.[46]

Historian of religion Jason Ā. Josephson-Storm in his book *The Myth of Disenchantment* (2017) comments that about the only thing which the unreflexive adherence to the conception of a disenchanted modernity has accomplished is to occlude the occult aspects of various historical individual's biographies.[47] Thomas Jefferson's cryptozoological career, and its importance for understanding the American experiment, is only one such casualty.

However, if cryptozoology is to be incorporated into academic discourses, then it will be necessary to develop a hermeneutic by which it can be understood as undoubtedly much of the resistance to the inclusion of such subjects is that scholars have been unclear as to how they should treat such claims since they typically cannot be empirically verified. This requires us to get to the very core of cryptozoology.

[45] David J. Puglia, "Introduction: Legendary North American Monsters," *North American Monsters: A Contemporary Legend Casebook* (Logan, UT: Utah State University Press, 2022), 14-15.
[46] Ibid., 15.
[47] Josephson-Storm, *The Myth of Disenchantment*, 43-4.

1.3: The *Doxa* of Cryptozoology

In the absence of formal academic discussions of cryptozoology, the most scholarly treatments on cryptozoological topics instead regularly appear in the quasi-academic space of popular newsstand magazines like the *Fortean Times* (1973-Present) and *Skeptical Inquirer* (1976-Present).[48] And while these very erudite publications routinely feature well researched articles (complete with footnotes) on cryptozoology – as well as related topics like UFOs and ghosts – both are also decidedly polemical with the *Fortean Times* being more friendly to such subjects and the *Skeptical Inquirer* more cynical.[49]

This division in turn has framed the subject of cryptozoology as a dogmatic conflict between believers and Skeptics. This is problematic for multiple reasons, beginning with the fact that it furthers the disenchantment narrative by suggesting that only belief or skepticism can be the prevailing spirit of the times rather than opinions which have always coexisted and may even overlap.[50] Another problem is simply the difficulty that quantifying "belief" poses for researchers.[51] Finally the believers versus Skeptics dynamic is reductive in that it eclipses the often-ambiguous status which subjects like cryptozoology occupy in their respective cultures.

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[48] The term "Fortean" is derived from early 20th-Century American writer Charles Fort (1874–1932) who is regarded as the "inventor of the modern paranormal or conspiracy theory style" of popular literature. See Jeb J. Card, *Spooky Archeology* (Albuquerque, NM: University of New Mexico Press, 2018), 235. Or as religious studies scholar Jeffery J. Kripal has remarked: "If the history of Western philosophy is a series of footnotes to Plato, the history of the paranormal in the twentieth century is a series of footnotes to Charles Fort." Kripal, *Authors of the Impossible*, 125.

[49] It is worth noting that self-described Skeptics often possess no more "specific knowledge" than the cryptozoologists they criticize but nevertheless operate under the premise that expertise "can be replaced with [a] 'critical attitude.'" Lorenzo Rossi & Veronica Padovani, "The Science of Monster Hunting," *Atti Soc. Nat. Mat. Modena* Vol. 152 (2021): 149. A final note, despite their stated opposition the *Fortean Times* and *Skeptical Inquirer* share several recurring contributors.

[50] For example, Europeans during the medieval and early modern periods have often been stereotyped as overly credulous. For refutation of this idea see Darren Oldridge, *Strange Histories* (Routledge, 2017: 2nd Ed.).

[51] Wyatt Dawson; Paul Brewer; and Liam Cuddy. "Cryptid Communication: Media Messages and Public Beliefs About Cryptozoology," *International Journal of Communication* Vol. 18 (Dec. 26, 2023): Web.

While it is true that some enthusiastically affirm, while others emphatically deny, such monsters' existence, most people are simply content to leave such questions an intriguing possibility.[52]

However, this framing of cryptozoology as a contest between believers and Skeptics does have one advantage which is that it can allow access to the core concerns of cryptozoology via the sociological concept of *doxa*. Doxa refers to a situation where two parties appear to be on opposing sides of an ideological issue but in fact are allied through a shared set of assumptions. In fact, it is only this very set of shared assumptions that allows them to hold a debate. Identifying both parties shared assumptions allows sociologists to identify the true source of the conflict, while questioning, or even invalidating, those shared assumptions will often demolish the very foundation upon which the entire debate is premised.[53]

An example of doxa can be found in the polemical literature of cryptozoology, namely the shared assumption among both cryptozoological advocates and detractors that cryptozoology is a science. It should not be considered surprising that cryptozoologists would wish to appropriate the language of science for reasons that will be discussed in more detail in the following section. However, it is rather more surprising that the field's detractors, the Skeptics, would also maintain that cryptozoology is a science; just one being done incredibly poorly.[54] This is exactly what one finds repeatedly in the Skeptical literature on cryptozoology where terms like "pseudoscience" are often bandied about or alternatively other similar phrases like "fringe science," "boarder science,"

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[52] Michael Dylan Foster, *Pandemonium and Parade: Japanese Monsters and the Culture of Yokai* (Oakland: University of California Press.2009), 12–3.
[53] Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge MA: Cambridge University Press, 1977), 164.
[54] The conclusion of statistician Floe Foxon's recent article on cryptozoology is representative of this mindset. Foxon writes: "In conclusion, cryptozoology may have the potential to contribute to future scientific discoveries, re-discoveries, and general studies of animals; if it is able to rigorise its methods and shake the allure of a focus on 'monsters'." Floe Foxon, "Heuvelmans the Heretic and Hidden Animals," *Interdisciplinary Science Reviews* (2024): https://journals.sagepub.com/doi/10.1177/03080188241233107. Cf. Sharon Hill, "Cryptozoology and Pseudoscience," *Skeptical Briefs* Vol. 21 no. 03 (May 23, 2012): https://skepticalinquirer.org/newsletter/cryptozoology-and-pseudoscience/

or "heterodox science." Historian of science Michael D. Gordin, operating under the disenchanted modernity schema, labels cryptozoology a "counter establishment science" in its alleged opposition to an overly materialistic scientific mainstream.[55] Alternatively marine biologist Robert L. France astutely observes that Heuvelmans' conception of cryptozoology is not so much that of a "false-science" but "rather an anachronistic return to the traditions of nineteenth-century natural history" as carried out by amateur naturalists in opposition to contemporary university-trained field and laboratory biologists.[56]

Ultimately, whatever combination of words Skeptics use the same point is always made, that cryptozoology has fallen short of the mark that would qualify it as a legitimate science. However, this is also a foregone conclusion for anyone who has spent any appreciable time reading the cryptozoological literature, watching cryptozoological documentaries or reality TV programs, listening to cryptozoology podcasts, attending cryptozoological conventions and conferences, and talking to cryptozoologists. Meaning that all such labels ultimately tell us very little of any real importance and may not even be, technically speaking, accurate. But what if we stopped thinking about cryptozoology as a science altogether?

[55] Gordin, *On the Fringe*, 41-3.
[56] R.L. France, *Disentangled: Ethnozoology and Environmental Explanation of the Gloucester Sea Serpent* (Netherlands: Wageningen Academic Publishers, 2019), 32 and 36-37. Cf. Michael D. Gordin calls his type of pseudoscience "vestigial science" but doesn't class cryptozoology as an example of it, though he notes the possibility for overlap between his categories. Gordin, *On the Fringe*, 50-51.

1.4: Cryptozoology as the Scientification of Folklore

Cultural critics Roger Grimshaw and Paul Lester described cryptozoology as "the scientification of folklore."[57] This was derived from Heuvelmans' unequivocal contention that "one of the main tasks of cryptozoology is the attempt to strip off from 'monsters' those attributes which have been borrowed from their mythological models."[58] Whereas the residents living around Scotland's Loch Ness once spoke of the loch as being the habitat of supernatural kelpies, water-bulls, and magical islands that appear and disappear beneath the waves, today they talk about it being the domain of such cryptids as relic plesiosaurs, giant eels, or supersized seals.

This type of transformation is described by Grimshaw and Lester as "in effect the only way 'monsters' could survive at all" in a world now dominated by the new paradigm of scientific consensus following the worldwide Scientific Revolution of the 16th and 17th centuries. It is briefly worth noting that while the Scientific Revolution has sometimes been criticized as a Eurocentric phenomenon rather than a global one, the recent work of philosopher of science Arun Bala has shown this judgment to be erroneous and that this important shift in thinking was truly international.[59] Moreover, rather than displacing belief in the supernatural as Weber contended, the Scientific Revolution instead subsumed such beliefs, re-codified them, and reproduced them under the guise of science.[60] By naturalizing monsters, cryptozoologists had discovered a way to

[57] Roger Grimshaw and Paul Lester, *The Meaning of the Loch Ness Monster* (Birmingham, UK: Centre for Contemporary Cultural Studies, 1976), 10.
[58] Heuvelmans, "The Sources and Method of Cryptozoological Research," 12.
[59] Arun Bala, *Dialogue of Civilizations in the Birth of Modern Science* (Palgrave Macmillan, 2006). Cf. For two other works on this topic with links to cryptozoology see Carla Nappi's *The Monkey and the Inkpot* (Harvard UP, 2009) and Federico Marcon's *The Knowledge of Nature, and the Nature of Knowledge in Early Modern Japan* (U. of Chicago P, 2015).
[60] Ibid., 10.

smuggle the fantastic beasts of our myths and folktales into a post-Linnaean system of zoological categorization and classification.

Such an understanding of monster legends as systems which disguise a zoological reality constitutes an example of what mythographers refer to as "euhemerism." The term is derived from the Sicilian author and philosopher Euhemerus of Messene (c. 316 BCE) whose book *Sacred History* posited that the Olympian deities were in reality nothing more than ancient kings and queens whose existence had been occluded by generations of Greek mythology.[61] While Euhermerus' ideas about the true nature of the Olympians did not receive wide support from his fellow Greek philosophers they would subsequently become popular among medieval Christian Scandinavian intellectuals like Snorri Sturluson who argued much the same for the pagan Norse gods.[62] More significant for this dissertation, folklorist Michel Meurger observes that it was also in Scandinavia and the neighboring northern country of Switzerland that "a copious scholarly literature" began to accumulate during the Scientific Revolution in which the "naturalizing [of] elemental demons… into profane sightings of undiscovered animals" first came to prominence.[63]

In the wake of this, Enlightenment thinkers of the 18th century, including Thomas Jefferson, promoted euhemerism as a means of "lending credence" to both the legends of Native Americans as well as the traveler's tales of early settlers. This resulted in euhemeristic interpretations of myths, legends, and folktales gaining widespread popularity throughout the 19th century.[64]

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[61] Stylianos Spyridakis, "Zeus Is Dead: Euhemerus and Crete," *The Classical Journal* Vol. 63, no. 8 (May, 1968), 337-40.
[62] Jacob Hobson, "Euhemerism and the Veiling of History in Early Scandinavian Literature," *The Journal of English and Germanic Philology* Vol. 116 no. 1 (January 2017), 24-44.
[63] Michel Meurger and Claude Gagnon, *Lake Monster Traditions: A Cross-Cultural Analysis* (London: Fortean Tomes, 1988), 15.
[64] Michael D. Konaris, "'The sins of Euhemerus against truth and honesty': Indo-European Comparative Mythology versus Euhemerism in Victorian Britain" and Robert A. Segal, "Frazer as Euhemerist: The Case of Osiris" both in *Euhemerism and Its Uses: The Mortal Gods*, ed. Syrithe Pugh (New York: Routledge, 2021), 219-40 and 241-48.

Regarding monsters, it was the Victorian-era British geologist Charles Gould's *Mythical Monsters* (1886) that has often been singled out as one of the most important books ever written on fabulous beasts as it was the first to re-contextualize them within the larger discourse of modern science.[65] Like modern cryptozoologists, Gould held that such fabulous creatures as dragons, sea-serpents, unicorns, and the phoenix were all real animals whose identities had been obscured by exaggeration and superstition. The opening pages of *Mythical Monsters* boldly declares, for example, that "the dragon, in place of being a creature evolved out of the imagination… is an animal which once lived and dragged its ponderous coils, and perhaps flew; which devastated herds, and on occasion swallowed their shepherds."[66] Not surprisingly Heuvelmans was an ardent admirer of Gould's book and a popular press photo shows him holding an open copy.[67]

Speculations such as Gould's were greatly aided during the long 19th century (beginning with the Napoleonic era and ending with World War I) by the then-recent discovery of fossil marine reptiles like *Plesiosaurus* which were seen as supporting speculations that fabulous beasts, such as sea serpents, were not outside the scope of nature. Articles addressing such conjectures as the possibility that sea-serpent reports might be evidence of extant plesiosaurs even regularly appeared in mainstream academic journals and were frequently endorsed by many of the best and brightest naturalists of that time.[68] The Victorian identification of mythical creatures with animals otherwise known only from the fossil record marks an instance of what paleobiologist Darren

[65] Joseph Nigg, *The Book of Fabulous Beasts: A Treasury of Writings from Ancient Times to the Present* (New York: Oxford UP, 1999), 339.
[66] Ibid.
[67] Heuvelmans, "The Birth and Early History of Cryptozoology," *Cryptozoology* Vol. 3 (1984), 7.
[68] France, *Disentangled*, 20-29 & 34-36. Cf. Paul Lester, *The Great Sea Serpent Controversy: A Cultural Study* (Protean Publishers: 1984).

Naish has termed the "prehistoric survivor paradigm" of cryptozoology, though as we will see, this trope can be extended back to Jefferson.[69]

Heuvelmans' own euhemeristic belief that all mythical and folkloric monsters were real animals is most clearly demonstrated in his response, printed in the third volume of the ISC's journal *Cryptozoology*, to some rather jocular remarks made by University of Chicago paleobiologist and ISC board member Leigh Van Valen and Canadian marine biologist John R. Sibert in reaction to an article, published in a previous volume of *Cryptozoology*, by anthropologist Roy Wagner concerning the *ri*; a mermaid-like creature reportedly living off the coast of Papua New Guinea.[70] Together these scientists suggested that if cryptozoology wished to be recognized as a legitimate science then it should steer clear of such fantastical creatures as mermaids, jinn, and leprechauns, which certainly could not be considered appropriate research topics for a zoologist. Heuvelmans replied with the following.

> Mermaids, jinn, and the like are nothing else but the highly mythicized images of real animals (in the broadest sense). Mermaids are just distorted traditions of sirenians, pinnipeds, and sometimes dolphins, but possibly also of a still unknown form of aquatic primate (this, at least, cannot be ruled out completely). The name jinn was used by Mohammed the Prophet himself for wild hairy men living in the deserts, and which, he said, were not to be killed or even harmed, but, on the contrary, should be fed by the faithful. These scavenging outcasts were probably, in my opinion, relict Neanderthals. Finally, I know of several serious studies which try to link leprechauns, brownies, fairies, and tuttiquanti to the traditions of extinct prehistoric races (or species?) of pygmies.[71]

What such remarks make clear is that, for Heuvelmans and the legions of cryptozoologists who have followed his lead, cryptids are indistinguishable from all the monsters of our

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[69] Darren Naish, *Hunting Monsters: Cryptozoology and the Reality Behind the Myths* (London: Sirius Publishing, 2017), 38.
[70] Van Valen, "Cryptozoology, Paleontology, and Evidence," 155-57 and John R. Sibert, "*Ri*-ality: A Mermaid in the Hand?," *Cryptozoology* Vol. 2 (Winter 1983), 159-61.
[71] Bernard Heuvelmans, "Cryptozoology: What It Really Is," *Cryptozoology* Vol. 3 (1984), 110. Cf. Heuvelmans, *On the Track of Unknown Animals* 3rd Ed. (New York: Kegan Paul International, 1995), 504 & "Annotated Checklist of Apparently Unknown Animals with which Cryptozoology is Concerned," *Cryptozoology* Vol. 5 (1986), 5-7.

mythologies and folktales.[72] From wild-men to sea-serpents, dragons and unicorns, mermaids and jinn, even werewolves and vampires; all fall under cryptozoology's euhemeristic hermeneutic in which such creatures cannot be wholly invented since, according to Heuvelmans, the human "imagination is strictly limited" and can only extrapolate based on what it sees in the world around it.[73] Ergo there must be a grain of truth – an actual animal – behind all these monster tales no matter how extravagant or fanciful they may seem.

Moreover, as Emily Fergus writes "euhemerism combines elements of both the natural and the supernatural, specifically the way in which the theory appears rationally to deconstruct uncanny myths and root them in the quotidian, while at the same time losing little of the magic and narrative satisfaction originally associated with the myth."[74] This is an important observation that helps to explain why so many people find cryptozoology so important and so compelling. "Science," Skeptic Daniel Cohen once wrote, is a "hard and restrictive" process, "a rigorous logical approach to evidence" which tends to "destroy" rather than affirm our most "beloved romantic myths."[75] Cryptozoology, however, does the exact opposite. Rather than rejecting the "local superstitions held by uneducated countrymen and women" it uses euhemerism to instead "renegotiate the boundary between natural and supernatural" by taking beliefs such as the existence of monsters and grounding them in putatively scientific fact thereby "increasing the meaning and importance of such beliefs."[76] Cryptozoologists accomplish this by effectively reimagining the monsters of legend as creatures who conform (mostly) to the presuppositions of

[72] Kleber da Silva Vieira et al., "Imaginary Zoology," *Ethnozoology: Animals in Our Lives* (Cambridge, MA: Academic Press, 2018), 53.
[73] Heuvelmans, *The Natural History of Hidden Animals*, 14. Cf. Bernard Heuvelmans, "How Many Animal Species Remain to be Discovered?," *Cryptozoology* Vol. 2 (Winter 1983), 5.
[74] Emily Fergus, "'Goblinlike, Fantastic': Little People and Deep Time at the Fin De Siècle," MA Thesis (Birkbeck, University of London, 2019), 89.
[75] Daniel Cohen, *Myths of the Space Age* (New York: Tower Books, 1967), 10.
[76] Fergus "'Goblinlike, Fantastic,'" 89.

modern zoology and paleontology. A process which effectively adorns such monsters with a veneer of scientific credibility. The result is a process which allows monsters to become, if not truly acceptable to elite academics, then at least more palatable to a post-Enlightenment laity.

In this way cryptozoology functions as an example of what narratologist Markus Davidsen has termed "veracity mechanisms;" little details that are added to a particular story to lend it further credence or credibility and make an audience more inclined to believe it.[77] In this way the peppering of folklore with scientific jargon and concepts by cryptozoologists can be seen as an example of adding veracity to monster tales. A process which has evidently been highly successful since, as American media and literary scholar Jeffrey Andrew Weinstock observes, cryptids, "to a degree even greater than mythical creatures," possess a phenomenal "staying power – once purchase is attained in the imagination, cryptids persist even when their origins can be traced to a hoax, mistake, or misperception."[78] Weinstock speculates that this is due to the presentation of cryptids as putatively real animals. J.W. Ocker echoes this sentiment in his recent survey of American cryptozoological tourism, noting that what many cryptozoological detractors often miss about the appeal of the subject is that it is the very possibility of their existence that makes cryptids so compelling: "Sure, we have fictional monsters in our movies and books, but a thousand Frankensteins and King Kongs and Grendels weigh far less than a single monster that is 'based on a true story.'"[79]

However, it must be acknowledged that the process of transforming mythical monsters into zoologically credible animals is no easy task. To accomplish this, cryptozoologists frequently

[77] Markus Altena Davidsen, *Narrative and Belief* (New York: Routledge, 2018), 41-42.
[78] Weinstock, "Introduction," 21.
[79] J.W. Ocker, *The United States of Cryptids: A Tour of American Myths and Monsters* (Philadelphia, PA: Quirk Books, 2022), 277.

resort to what is known as "speculative zoology." As Naish explains, speculative zoology is "the imaginative field in which people invent creatures from hypothetical timelines, alternative evolutionary trajectories and 'what if?' scenarios."[80] It is important to stress here that speculative zoology is not simply the fanciful invention of nonsense animals like the Greek chimera. Rather speculative zoologists, to quote paleontologist Dale Russell, "imagine quantitatively" by adhering to the known rules of biological science in the creation of their creatures.[81] For example, there are no known vertebrates alive either today or in the fossil record which possess more than four limbs. Ergo the classical dragon of fantasy with its four legs and pair of wings (which count as limbs) is a zoological impossibility, while a dragon – or *wyvern* to be technical – with only one pair of legs and a pair of wings would be seen as zoologically plausible.[82] All this makes speculative zoology an undoubtedly quirky undertaking, not to mention one which Naish – despite being a practitioner himself – freely admits is "seemingly pointless" due to it being, by and large, utterly "divorced from actual science."[83]

Grimshaw and Lester's initial observations about cryptozoology as "the scientification of folklore" were greatly elaborated upon by Michel Meurger, who writes that "cryptozoologists may be viewed as traditionalists, the heirs of an unquestioned framework built by scientists of the Enlightenment, and revealed to the masses by Victorian popularizers… Bernard Heuvelmans… may be seen as one of the last links in a long chain of euhemeristic interpretation of… folklore."[84] When approached in this manner cryptozoology can best be understood not as a science, or

[80] Darren Naish, "Speculative zoology," *Fortean Times* no. 316 (July 2014), 52-3.
[81] Darren Naish and Will Tattersdill, "Art, anatomy, and the stars: Russell and Séguin's dinosauroid," *Canadian Journal of Earth Sciences* Vol. 58 no. 9 (Sept. 2021), 968-79.
[82] Phil Senter, "Fire-Breathing Dinosaurs? Physics, Fossils, And Functional Morphology vs. Pseudoscience," *Skeptical Inquirer* Vol. 41 no. 4 (July/Aug., 2017), 26-33.
[83] Darren Naish, "Speculative Zoology at Tet Zoo, The Story So Far." *Scientific American* (May 30, 2015): https://www.scientificamerican.com/blog/tetrapod-zoology/speculative-zoology-at-tet-zoo-the-story-so-far/
[84] Michel Meurger, "Francesco Negri, the Kraken and the Sea Serpent," *Fortean Studies* Vol. 6 (1999), 238.

pseudoscience, but rather as a genre of folklore – or even speculative fiction – which developed in response to the emergence of modern science.[85]

Such an understanding of cryptozoology, and other similar "paranormal phenomena," highlights the "mythical dimensions" embedded within and transforms it into "a text to be read out and interpreted" by scholars.[86] This way even if the specific claims of cryptozoologists cannot be verified they can nevertheless be seen as constituting a text (especially since they take the form of texts like newspaper accounts, popular books, magazine articles, etc…) which can be incorporated into academic analysis.

[85] For cryptozoology as a genre of speculative fiction see Justin Mullis, "Cryptofiction! Science-Fiction and the Rise of Cryptozoology" in *The Paranormal and Popular Culture*, ed. Darryl Caterine and John W. Morehead (New York: Routledge), 240–52.
[86] Kripal, *Authors of the Impossible*, 26.

CHAPTER II: THOMAS JEFFERSON, CRYPTOZOOLOGIST

2.1: The Mastodon

It was in the early autumn of 1780 that a curious letter arrived in the hands of Virginia governor Thomas Jefferson, then thirty-seven years old and currently stationed in the city of Richmond. The letter was a questionnaire, asking various representatives if they could compile an inventory of their state's flora and fauna. It had come courtesy of François Barbé-Marbois; the secretary of the French delegation in Philadelphia.[87] To say that the timing of such a request was liable to seem odd would be an understatement. This was five years into the Revolutionary War, at a point when the colonial forces were suffering heavy losses at the hands of the British, especially in the south where the Virginia militia had just faced a demoralizing total defeat at the battle of Camden. In a few months the British army would invade Tidewater, Virginia before temporarily withdrawing and then renewing their full-scale assault on the state. Considering these dire circumstances, it is likely that many undoubtedly saw Barbé-Marbois's thirty-three inquiries about American plants and animals as an inappropriate frivolity. However, Jefferson knew better. Though France served as America's primary ally during the Revolutionary War, officially entering the conflict in June of 1778, this was not a decision that all French citizens uniformly supported. In inquiring after each state's natural resources what Barbé-Marbois's seemingly trivial letter was truly attempting to ascertain was if America was a land worth fighting for. Jefferson understood this and felt compelled to respond to Barbé-Marbois in the affirmative.

[87] Gilbert Chinard, "Eighteenth Century Theories on America as a Human Habitat," *Proceedings of the American Philosophical Society* Vol. 91 no. 1 (Feb. 25, 1947): 27-57.

Barbé-Marbois's doubts about the value of North America, which he shared with numerous other French intellectuals, were grounded in the work of French mathematician and naturalist Georges-Louis Leclerc, Comte de Buffon. A member of the French Royal Academy of Science and the Royal Society of London, as well as the Curator of King Louis XV's Royal Botanical Gardens, Buffon was the eighteenth-century equivalent of a celebrity-scientist.[88] His magnum opus was a thirty-six-volume encyclopedia titled *Natural History: General and Particular* (1749–1788), which proclaimed to unveil "the true history of each thing."[89] The book was a bestseller in its day, having sold out in its first six weeks, with much of its success being due to the provocative nature of its contents, which included Buffon's theory of American degeneracy.

American degeneracy was an idea that had its roots in Buffon's groundbreaking work in the field of ecology. As one of the first naturalists to argue that the environment played a vital role in how different plants, animals, and people developed, Buffon arrived at the conclusion that heat was instrumental to the healthy maturation of life on Earth, and from this extrapolated that animals which developed in parts of the world where it was warm and dry would tend to be powerful, robust, and fertile. However, the opposite was also true and those which developed in cold and wet environments would bound to be weak, cowardly, and infertile – which is to say degenerate. Though quaint when considered in the light of modern ecology, Buffon's conjectures on this topic were cutting edge for their time.[90]

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[88] Sandra Knapp, "Comte de Buffon: A Grand Theorist," in *The Great Naturalists*, ed. Robert Huxley (London: Thames & Hudson, 2019), 121-127.
[89] Lee Alan Dugatkin, *Jefferson and the Giant Moose: Natural History in Early America* (Chicago: U. of Chicago Press, 2009), 17.
[90] Paul Semonin, *American Monster: How the Nation's First Prehistoric Creature Became a Symbol of National Identity* (New York: New York UP, 2000), Chapter 5.

Though Buffon never set foot in the Americas, early accounts from French explorers had convinced him that the New World was mostly either vaporous swampland or frozen tundra. As a result, all American animals could be assumed to be smaller and more pathetic than the animals found in the Old World. Nowhere in America, Buffon wrote, should one expect to find animals as large and impressive as the Old World's "elephant, the rhinoceros, the hippopotamus, the dromedary, the camelopard [giraffe], the buffalo, the lion, the tiger, &c."[91] Likewise, animals that the New World did have in common with the Old — such as bear, wolves, and deer — were deemed inferior to their European counterparts. Moreover, such theorizing took on a decidedly political dimension as well, since Buffon reasoned that human societies tended to mimic the animals they developed alongside. The implication then regarding the fledgling American colonies could not have been clearer. If America's animals were degenerate, so too would be any human society occupying the same environment.

Those who opposed France's involvement in the Revolutionary War used Buffon's ideas about degeneracy to argue that there was nothing to be gained from fighting over a land of sickly animals, noxious plants, and uppity colonists.[92] It was exactly these sorts of concerns among the French that had prompted the circulation of Barbé-Marbois's questionnaire. Jefferson, a graduate from the College of William & Mary in 1762, had studied mathematics and philosophy while cultivating a profound love of the sciences. As a result, he was well acquainted with Buffon's *Natural History* including its theory of degeneracy and was perceptive enough to realize that such conjectures posed a potential threat to the future of American democracy in their libelous accusation of New World zoological impotency, accusations that would need to be

[91] Gordon S. Wood, "Environmental Hazards, Eighteenth-Century Style" in *Old World, New World: American and Europe in the Age of Jefferson* (Charlottesville, VA: U of Virginia P, 2010), 16.
[92] Dugatkin, *Jefferson and the Giant Moose*, 29.

unequivocally refuted. It was this set of circumstances that resulted in Jefferson's first forays into the world of North American cryptozoological speculation.

Central to Buffon's argument for American degeneracy was the assertion that the continent boasted no large animals. Ergo if Jefferson was going to show Buffon, and the rest of the world, just how impressive America, and by extension Americans, truly were then he was going to need animals that were larger and more awe-inspiring than any ever found in the Old World. In short, Jefferson was going to need monsters.

Jefferson's answer to Barbé-Marbois's questionnaire came in the form of his one and only book, *Notes on the State of Virginia* (1785); a veritable compendium on all things Americana presenting Jefferson's thoughts on such disparate topics as natural history, local and federal politics, law, religion, commerce, and Black chattel slavery. By and large however *Notes* is primarily concerned with the sciences: zoology, botany, geology, paleontology, meteorology and, to a lesser extent archeology and anthropology. It has been described by various historians as the most important book in American history prior to 1800.[93]

Though *Notes* would not be published until two years after the end of the Revolutionary War – first anonymously in French and then with proper attribution in English another two years after that – Jefferson began working on the manuscript almost immediately after receiving Barbé-Marbois's letter. Ironically Jefferson was not even the missive's intended original recipient as it had been sent to Virginia delegate Joseph Jones; uncle of James Monroe.[94] However Jones passed the letter on to Jefferson, who he felt was more capable of answering the skeptical Frenchman's many questions about American plants and animals.

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[93] Ibid., 68. Cf. William Peden, "Introduction," in *Notes on the State of Virginia*, ed. William Peden (Chapel Hill: U. of North Carolina P., 1982), xi.
[94] Peden, "Introduction," xii.

One of the earliest references to Jefferson's work on this project comes from a November 30, 1780, letter to the French politician Charles François Chevalier D'Anmours. Here Jefferson writes that he is "present busily employed for Monsr. Marbois without his knowing it" and that he must soon write to the secretary and thank him for "making me much better acquainted with my own country than I ever was before." Jefferson goes on to say that though he intends to "take every occasion which presents itself of procuring answers to" Barbé-Marbois's inquiries, he feels that he will ultimately need access to his voluminous personal library – a collection comprised of some 6,500 books – housed in his mountaintop estate of Monticello "where alone the materials exist which can enable any one to answer them."[95]

At some point between then and the beginning of February the following year, Barbé-Marbois would learn that the author of the Declaration of Independence was crafting a lengthy reply to his questionnaire. However, Jefferson's progress on the manuscript would be delayed due to the increasing volatility of the war. On New Year's Eve, 1781, the British army resumed their invasion of Virginia under the command of the turncoat Benedict Arnold. In less than two weeks, Arnold's forces were approaching Richmond, necessitating that Jefferson, his family, and his fellow officials be evacuated. Jefferson briefly returned to Monticello and by the beginning of March was writing Barbé-Marbois in reply to a February 5th letter inquiring about the progress of the governor's response to his survey. Jefferson regretfully informed the secretary that so far, he had only managed "to collect a few materials" related to the questionnaire as "my present occupations disable me from completing" his response. However, Jefferson reassures Barbé-Marbois that he will soon be "in a condition which will leave me quite at leisure to take them up"

[95] "From Thomas Jefferson to D'Anmours, 30 November 1780," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-04-02-0198. Jefferson's private library would one day form the beginnings of the Library of Congress.

and that once the manuscript is completed it will be given to "you as full information […] on such of the subjects as are within the sphere of my acquaintance."[96]

While Jefferson's commitment to the project was steadfast, a combination of personal and national matters continued to stymie his progress. On April 15, 1781, Jefferson's five-month-old daughter Lucy Elizabeth passed away at around the same time his beloved wife Martha's health began to deteriorate. In May, a large British force under the command of General Charles Cornwallis moved into Virginia from the south where they convened with troops led by Major General William Phillips and those of the treacherous Arnold. General Cornwallis then dispatched a cavalry force led by Banastre Tarleton with orders to raid Monticello and capture Jefferson as well as the members of the General Assembly who were stationed in nearby Charleston. However, Jefferson and his family received last-minute notice of the attack and managed to escape to their country retreat in Poplar Forest, near Lynchburg, some ninety miles away. Due to his wife's continued ill-health combined with the stress of nearly becoming a prisoner of war, Jefferson retired from his role as governor at the beginning of June 1781 which in turn allowed him additional time to work on *Notes*.

While Jefferson fought the Revolutionary War in the theater of the European mind, General George Washington was fighting it on the ground in Yorktown where the combined forces of the American Continental Army with support from Marquis de Lafayette and the French Army, under the command of Comte de Rochambeau, managed to defeat Lord Cornwallis and the British Army in a decisive victory on October 19, 1781, beginning the end of the war.

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[96] "From Thomas Jefferson to Marbois, 4 March 1781," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-05-02-0081.

Having resumed his work on *Notes*, it was in December of 1781 that Jefferson learned of the expedition of Charles le Moyne, Baron de Longueuil; a French explorer who in July of 1739 left Montreal with the aim of reaching the Mississippi via the Ohio River and ultimately arriving at the French port of New Orleans, which had been founded by his uncle, the governor of Louisiana, Jean-Baptiste Le Moyne de Bienville. Longueuil's expedition had two goals. One was to bring an army to aid in his uncle's fight for New Orleans which was currently under siege by the Chickasaw who had allied with the English.[97] The second was to chart the Ohio River which was still unknown to the French. To assist in this second aim, Longueuil was to be accompanied by Joseph-Gaspard Chaussegros de Lery; the eighteen-year-old son of New France's chief engineer.[98]

According to the official rosters, traveling with Longueuil was a contingent of 123 French and Canadian soldiers and 319 men from various allied Indigenous nations. These included 186 de Sault Iroquois, fifty-one Two Mountains Iroquois, thirty-two Algonquin and Nipissing, and fifty Abenaki.[99] That autumn, while traveling down the lower Ohio River, Longueuil and his men stopped to make camp in what is present-day Kentucky, not far from the modern city of Louisville. One of the reasons for the enlisting of First Nations men was not only so they could serve as soldiers but also hunters, procuring fresh meat for Longueuil's men each night. That evening several hunting parties, probably consisting of no more than six men each, split off from the main group and headed out into the surrounding bush.

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[97] Semonin, *American Monster*, 87. Cf. Adrienne Mayor, *Fossil Legends of the First Americans* (Princeton, NJ: Princeton UP, 2005), 1.
[98] John J. McKay, *Discovering the Mammoth: A Tale of Giants, Unicorns, Ivory, and the Birth of a New Science* (New York: Pegasus Books, 2017), 139.
[99] Ibid.

One of these groups came across a salt lick which despite its brackish water and sulfurous smell they knew was an excellent place to lie in wait for deer who need the salt during the spring and summer months to counteract a natural sodium deficiency that occurs in such animals because of the increase in the number of succulent plants being consumed. The site these hunters visited is today known as Big Bone Lick on account of the scores of gigantic Pleistocene mammal bones that have been found there. In the late 1730s these bones would have been eroding right out of the marshy ground and as a result the hunters decided to bring several of the most impressive specimens – a three and half foot long thigh, an elephantine tusk, and three teeth including one of which weighed ten pounds – back to camp. The exact tribal affiliation of the discovers of these bones was not recorded by the French but folklorist Adrienne Mayor has argued that the most likely candidates were the Abenaki due to their long history of harvesting ivory – mostly from whales – which means that they would have likely recognized the bones as being valuable.[100]

Based on accounts recorded by early 17th century French captains in Quebec, Mayor further speculates that the Abenaki men who accompanied Longueuil most likely told him and his men that the bones were those of the *Meskag-kwedemos* (lit. "swamp creatures"); terrible horned water monsters reputed to dwell in lakes, rivers, and marshes. According to the Abenaki, the *Meskag-kwedemos* posed an especial danger during wartime since "in the bloody days of the wars, the monsters are numerous; [as] there is much to eat." The Abenaki even a had a tradition of deliberately capsizing their enemy's canoes so that "the *Meskag-kwedemos* will rise from the depths to eat them."[101] The fact that the Abenaki were currently heading off with the French to

[100] Today the thigh and all three teeth reside in the Paris Museum of Natural History. The tusks are long missing, probably looted during the French Revolution. Mayor, *Fossil Legends of the First Americans*, 15-19.
[101] Mayor, *Fossil Legends of the First Americans*, 12.

fight the Chickasaw in New Orleans therefore makes it even more likely that the men would have felt compelled to share these traditions with Longueuil and his men, possibly telling them that while traveling the waterways it would be wise to "not make loud noises or fire their muskets without good reason" as doing so would undoubtedly draw the monsters' attention.[102]

It is worth interjecting here that Mayor's claims about the putative link between mythical monsters and real fossils is neither original to her nor without substantiation. In his popular essay "Discourse on the Revolutions on the Surface of the Earth" (1812), George Cuvier, the Father of Paleontology, argued that mythical creatures like dragons were derived from the misidentified fossils of extinct animals.[103] To demonstrate this Cuvier showed that the famous Carpathian dragon skulls uncovered in 1673 by German physician Patersonius Hayn were actually those of Pleistocene cave bears.[104]

In this same vein the early 20th century Austrian paleontologist Othenio Abel recognized that another purported dragon skull located in the Austrian village of Klagenfurt – and on display in the town hall since 1339 CE when a local knight was said to have slain the beast in a nearby gravel pit – belonged, in reality, to a woolly rhinoceros.[105] Abel subsequently proposed that the bones of mammoths may have inspired/lent credence to the myths of classical giants as well.[106]

However, while Cuvier and Abel's contentions were based on solid evidence, Mayor's arguments, as seen above, are far more speculative. It should also be noted that Mayor began her career as a member of the International Society of Cryptozoology and that her earliest articles on

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[102] Ibid., 11-13.
[103] Martin J.S. Rudwick, *Georges Cuvier, Fossil Bones, and Geological Catastrophes: New Translations and Interpretations of the Primary Texts* (Chicago: U. of Chicago Press, 1997), 173-252.
[104] Herbert Wendt, *Before the Deluge* (New York: Doubleday & Company, 1968), 25-26.
[105] Mark Witton, "Unicorns, dragons, monsters and giants: palaeoart before palaeontology," *Mark P.Witton's Blog* (April, 2018): https://markwitton-com.blogspot.com/2018/04/unicorns-dragons-monsters-and-giants.html.
[106] Ibid.

such topics appeared in *Cryptozoology*, the official journal of the ISC, where they were warmly received.[107]

Historian Pratik Chakrabarti has offered the most substantial critique of Mayor's work to date, arguing that it is fundamentally ahistorical. Chakrabarti writes that it is not possible to argue that pre-modern peoples understood fossils as the remains of prehistoric creatures without retroactively imposing post-Scientific Revolution concepts like "fossils," "deep time," and "prehistory" onto antiquity. While ancient peoples around the world certainly encountered fossils and sometimes associated them with their myths and folktales there is no compelling evidence to suggest that they ever attempted to accurately reconstruct the remains of extinct creatures the way Mayor has suggested. It is worth recalling here that the putative Austrian dragon skulls of both Cuvier and Abel were in reality those of large mammals – bears and a rhino – not reptiles. This means that if men like Hayn were proto-paleontologists, as Mayor would have us believe, then they were embarrassingly bad ones. Chakrabarti maintains that rather than elucidate the true origin of ancient myths, what Mayor has done is co-opt the perceived absolute authority of science in order to legitimize pre-modern mythology and folklore.[108] In other words, Mayor can be seen as another practitioner of "the scientification of folklore."

Historian John J. McKay also disputes Mayor's conclusions regarding the Ohio river fossils based on Longueuil's own report of the expedition, which notes that on August 4th the party stopped off at the English settlement of Oswego, New York where a large part of the Abenaki and Two Mountain Iroquois deserted them, the total amounting to somewhere between

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[107] Adrienne Mayor, "Griffin Bones: Ancient Folklore and Paleontology," *Cryptozoology* Vol. 10 (1991): 16-41. Mayor would publish a second article with the ISC and accept an invitation to speak at their annual gathering. Much later she would sit on the review board for the Center of Fortean Zoology's short-lived peer-reviewed *Journal of Cryptozoology* (2012-2016).

[108] Pratik Chakrabarti, *Inscriptions of Nature: Geology and the Naturalization of Antiquity* (Baltimore, MD: John Hopkins UP, 2020), 108-9.

seventy to ninety men. Considering the fact that Longueuil had originally set off with only fifty Abenaki in his contingent this means that it is quite possible that after Oswego there were no Abenaki left traveling with Longueuil. Because of this McKay maintains that the most likely candidates for the discovery of the salt lick bones would be the Shawnee.

While Lougueuil's own records make no official mention of the Shawnee being involved in the French's campaign against the Chickasaw, McKay writes that following the desertion at Oswego, Longueuil expressed a desire to refurbish his ranks with new Indigenous recruits. McKay then points to a subsequent account penned by Jean Baptiste Celoron de Blainville, a veteran of the Chickasaw wars, about a diplomatic visit he made in 1749 to a large Shawnee settlement at the mouth of the Scioto River. For whatever reason the Shawnee were not thrilled to see Celoron, leading the French diplomat to ponder what had happened to the hospitality they had exhibited "ten years ago [when] Monsieur de Longueil (sic) passed by here on his way to the Chuachias [Chickasaws]." On that occasion the Shawnee of Scioto had shown the French "in every way the kindness of your hearts" and "a company of young men also volunteered to accompany him."[109] Based on Celoron's account this means that Longueuil had stopped at this same village a decade before, been warmly received, and had successfully recruited a number of Shawnee men to join him on his crusade against the Chickasaw in New Orleans. As a result, the Shawnee would have been with Longueuil's party when they arrived at Big Bone Lick later that fall.[110]

Moreover, the Shawnee also had prior knowledge of the salt lick and its prodigious bones as would later be documented by the Pennsylvania Quaker naturalist James Wright in a letter

[109] John J. McKay, "Baron Longueuil and the Mastodon of 1739," *Mammoth Tales* (01/14/2014): https://mammothtales.blogspot.com/2014/01/baron-longueuil-and-mastodon-of-1739.html
[110] McKay, *Discovering the Mammoth*, 138-40.

from the summer of 1762. Wright had spoken, via an interpreter, with two Shawnee who had arrived at Fort Pitt (future site of the city of Pittsburgh) with a large tooth and a tusk measuring some ten to twelve feet in length both of which they had harvested from the lick. These men told Wright that their people had always known about the bones and that they came from a tremendous race of animals which no Shawnee, not even "the oldest man, or his father," had ever seen alive. Tradition also said that in the past these monsters had been hunted by a race of giants but when those giants all died it was deemed necessary by "God" to destroy "these Mighty Creatures, that they should not hurt the Present race of Indians."[111]

Regardless of which group found them, Longueuil was obviously fascinated by the gargantuan bones because he ordered that they be packed up and taken with them to New Orleans. One of the French officers who had accompanied Longueuil was Major François-Marie Le Marchand de Lignery who recorded the story of the discovery in his journal (which is now lost). However, there is little evidence to suggest that the French took any of the Indigenous people's interpretation of these bones as belonging to fabulous monsters seriously. Rather Longueuil and his men recognized the tusk – which the Abenaki, if they were there, may have mistaken for a horn – as resembling those of an elephant. Because of this the young cartographer de Lery designated this location as "the place where the bones of many elephants were found"; a description that would be reprinted on maps of the New World for the next two decades.[112]

Longueuil's uncle's campaign against the Chickasaw was ultimately a disaster and in the aftermath the Baron returned to France in late 1740, taking the mysterious elephantine bones

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[111] Semonin, *American Monster*, 100-1.

[112] George Gaylord Simpson, "The Beginnings of Vertebrate Paleontology in North America," *Proceedings of the American Philosophical Society* Vol. 86 no. 1 (1942), 136-38. Cf. Semonin, *American Monster*, 88 & 97; Mayor, *Fossil Legends of the First Americans*, 7; McKay, *Discovering the Mammoth*, 141; and Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History* (New York: henry Holt and Co., 2014), 25–8.

with him. Once in Paris the bones were deposited in the Cabinet du Roi, King Louis XV's personal cabinet of curiosities, with the current curator Henri-Louis Duhamel du Monceau. However, Duhamel was on his way out, his successor being none other than Buffon. Buffon's aspirations were to transform the king's botanical garden and Cabinet du Roi into a worldclass research museum and so Longueuil's donation was promptly forgotten about.[113]

Despite being right under his nose Buffon would not learn about the strange bones from North America until several years later in the winter of 1747-48 during a meeting with André Fabry de la Bruyère, the secretary to Governor Bienville, Longueuil's uncle, who had briefly returned to Paris.[114] Fabry had seen the fabulous bones brought to New Orleans by Longueuil and had heard of their recovery from the Kentucky salt lick from Major de Lignery. Interestingly, according to Buffon, Fabry reported that the Indigenous Americans present had identified the bones as belonging to a monster they called "the father of Oxen."[115] But again exactly which group made this claim is not specified.[116]

After learning about the mysterious American bones, Buffon turned the problem over to his research assistant, the anatomist and naturalist Louis Jean-Marie Daubenton who immediately began a meticulous and thorough examination. By August of 1762 Daubenton had completed his investigation into the bones, his conclusions taking the form of a paper titled "Memoire on some bones and teeth remarkable for their size" that he presented to the French Royal Academy, and which was subsequently published in the 1764 issue of the Academy's official journal.

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[113] McKay, *Discovering the Mammoth*, 140-1 & 146.
[114] Ibid., 141. Hedeen, and several other sources, gives the spelling as "Fabri." However, it is Fabry. No one before McKay – not even Buffon – bothered to record the secretary's full name.
[115] McKay, "Baron Longueuil and the Mastodon of 1739."
[116] Mayor, *Fossil Legends of the First Americans*, 13-14.

As part of his investigation Daubenton had compared the tusk and thigh bones with those of an Asian elephant as well as a similar elephantine creature whose remains had been discovered thawing out of the Siberian tundra in the early 17th century and called a "mahmout" or "mammoth" by locals there.[117] Based on numerous similarities between the three specimens, Daubenton ultimately concluded that all three represented the bones of elephants, the slight differences in size and robustness being attributed to the animal's sex and respective age when they died.[118]

While the identity of the tusk and thigh seemed apparent enough to Daubenton, the three teeth gave him pause. These were molars, covered with sharp bulbous points, built for chewing. However modern elephants lack masticating teeth. This led Daubenton to conclude that the knobby teeth must have come from a different animal, probably a hippopotamus whose teeth are superficially quite similar. Mayor speculates that if Daubenton had somehow been made aware of the Abenaki traditions concerning the *Meskag-kwedemos* that this may have influenced his conclusion that the enigmatic teeth belonged to some variant of the African hippo, greatly feared for its propensity to attack boats, and which the German orientalist Hiob Ludolf, in his *New History of Ethiopia* (1682), had described as "a ferocious beast with monstrous teeth."[119] In fact accurate information about the hippo was so scant in Europe at this time that naturalists like Daubenton held the common misconception that the animal was carnivorous. More significantly however Daubenton also concluded that the presence of the animal's teeth along the Ohio river

[117] Semonin, *American Monster*, Chapter 3.
[118] McKay, *Discovering the Mammoth*, 146-8.
[119] Semonin, *American Monster*, 72-3 and Mayor, *Fossil Legends of the First Americans*, 14.

must mean that living representatives were still alive somewhere in the swamplands of America.[120]

However, Buffon disagreed with Daubenton's assessment and in *Natural History* noted quite definitively that "the Hippopotamus inhabits the banks of the large rivers of India and Africa, and is less numerous than the Rhinoceros. It is not found in America, nor even in the temperate climates of the Old Continent."[121] Again Buffon was confident that the New World was much too cold for either elephants or hippopotamuses. However, Buffon was also unsure if the other bones truly belonged to anatomically modern elephants and instead cautiously concluded that the thighs and tusks belonged to some hitherto unknown animal "a species the first and greatest of all land animals, now lost."[122] Although similar to the mammoth who Buffon also declared now "no longer exists anywhere, its remains have been found in several places, at great distances from each other, like Ireland, Siberia, and Louisiana," this unknown North American pachyderm was to be considered a different species altogether.[123] The fact that the mammoth's American cousin had died out was seen by Buffon and his followers as further confirmation of the count's theory of American degeneracy, proof positive that the New World's ecology was so corrupt that it could wipe out even an animal as magnificent as this.

Still in December of 1781, Jefferson decided that he needed to examine these mysterious bones for himself. On December 19th, Jefferson penned a letter to General George Rogers Clark,

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[120] Simpson, "The Beginnings of Vertebrate Paleontology in North America," 145; Mayor, *Fossil Legends of the First Americans*, 2; and Stanley Hedeen, *Big Bone Lick: The Cradle of American Paleontology* (Lexington, KY: UP of Kentucky, 2008), 38. Decades later the American Hippo bill of 1910 (House Resolution 23261) would try and make this a reality, see Jon Mooallem, "American Hippopotamus: A bracing and eccentric epic of espionage and hippos," *The Atavist Magazine* no. 32 (Dec. 2013): https://magazine.atavist.com/american-hippopotamus/

[121] Contrary to Buffon's assertion there are no hippos in India. Georges Louis Leclerc de Buffon, *Buffon's Natural History* Vol. VII, ed. James Smith Barr (London: H.D. Symonds, Paternoster-Row, 1807), 5, https://www.gutenberg.org/files/45820/45820-h/45820-h.htm

[122] Thomas Jefferson, *Notes on the State of Virginia*, ed. William Peden (Chapel Hill: U. of North Carolina P., 1982), 269 no. 32. Cf. Hedeen, *Big Bone Lick*, 38.

[123] McKay, *Discovering the Mammoth*, 146-7.

commander of the Army of the West, asking if he could "procure for me some teeth of the great animal whose remains are found on the Ohio. Were it possible to get a tooth of each kind, that is to say a foretooth, grinder &c. it would particularly oblige me."[124] This letter was also delivered by none other than the legendary frontiersman Col. Daniel Boone, though the mail being what it was in those days it did not arrive until mid-February of the following year.[125]

Upon receiving Jefferson's letter from Col. Boon, Gen. Clark wrote back on February 20, 1782, agreeing to the request while also reporting that "it hath been out of my power to procure you those Curiosities you want except a large thigh Bone that dont please me being broke." The general hoped that by spring he would be able to take a few men and retrieve "a Thigh and Jaw Bone Grinders and Tusk" from the Kentucky salt lick and assured Jefferson "that I shall embrace the first opportunity to get them and have them Convey'd to some part of the Frontier Convenient to you." Showing some familiarity with the bones Jefferson was requesting, Clark also noted that "the Animal had no foreteeth that I could ever discover and by no means Carnivorious as many suppose." Lastly Gen. Clark noted that he also had in his possession some "very Curious Shells found in many parts of this Cuntry" that he felt Jefferson might be interested in and that he would "send you a few of them." Gen. Clark ends on a picturesque note remarking that one can "scarcely ride a day through many parts of the Western Cuntry" without meeting "with Some Curious work of Antiquity."[126] Clark would eventually get Jefferson his bones but not until two years later in February of 1784.

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[124] "From Thomas Jefferson to George Rogers Clark, 19 December 1781," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-06-02-0136.
[125] Semonin *American Monsters*, 184–5 and Hedeen, *Big Bone Lick*, 65.
[126] "To Thomas Jefferson from George Rogers Clark, 20 February 1782," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-06-02-0150.

Gen. Clark's comment that the salt lick bones did not belong, in his estimation, to a carnivorous animal suggests that he was also familiar with one of the major controversies concerning the monster, namely its dietary preferences. It was Benjamin Franklin who had been among the first to broach this topic back in 1767. At this time Franklin was residing in London, and in an August 5th letter to the Irish trader George Croghan – who was quickly making a name for himself as the New World's foremost merchant specializing in big bones – mused that the presence of elephantine bones in the New World was a matter which he found "extremely curious on many accounts" as "no living elephants [have] been seen in any part of America by any of the Europeans settled there, or remembered in any tradition of the Indians."[127]

Like Daubenton before him, Franklin felt sure that "the tusks agree with those of the African and Asiatic elephant" but that "the grinders differ, being full of knobs, like the grinders of a carnivorous animal; when those of the elephant, who eats only vegetables, are almost smooth." This for Franklin was the crux of the issue, as he was untroubled by Buffon's assertions that North America was too temperate to support elephants since while it was certainly true "that elephants now inhabit naturally only hot countries where there is no winter" their "remains are found in a winter country; and it is no uncommon thing to find elephants' tusks in Siberia, in great quantities, when their rivers overflow, and wash away the earth, though Siberia is still more a wintery country than that on the Ohio."[128] For Franklin the real question remained if there was an "animal with tusks like an elephant to whom such grinders might belong"; or, in other words, was there a monster which combined the tusks and bulk of an elephant with the appetite of a carnivore?[129]

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[127] From Benjamin Franklin to George Croghan, 5 August 1767," *Founders Online*, National Archives, https://founders.archives.gov/documents/Franklin/01-14-02-0134. Cf. McKay, *Discovery of the Mammoth*, 150.
[128] Ibid.
[129] Simonin, *American Monster*, 138.

However, Franklin was not wedded to this conclusion. In a letter dated January 31, 1768, Franklin wrote to the French astronomer Abbe Chappe d'Auteroche, who had acquired several mammoths bone on a recent trip to Siberia.

> Some of Our Naturalists here, however, contend, that these are not the Grinders of Elephants but of some carnivorous Animal unknown, because such Knobs or Prominances on the Face of the Tooth are not to be found on those of Elephants, and only, as they say, on those of carnivorous Animals. But it appears to me that Animals capable of carrying such large and heavy Tusks, must themselves be large Creatures, too bulky to have the Activity necessary for pursuing and taking Prey; and therefore I am enclin'd to think those Knobs are only a small Variety, Animals of the same kind and Name often differing more materially, and that those Knobs might be as useful to grind the small Branches of Trees, as to chaw Flesh.[130]

Scottish anatomist William Hunter — the personal physician of England's Queen Charlotte — and his brother John, also a doctor, likewise examined the bones from Ohio that had been sent back to France. Like Buffon and Franklin, the Hunters disagreed with Daubenton and argued that the bones and teeth were from the same animal, which was neither an elephant nor a hippopotamus. The Hunters also felt strongly that the mystifying molars most closely resembled those of a carnivore though in all other respects the animal appeared related, in some way, to the mammoth of the Siberian tundra. Based on this assessment, William Hunter dubbed the mysterious American creature the *Incognitum*; a name literally meaning "Unknown Animal" and therefore making it, semantically at least, the first cryptid.[131]

The idea of an unknown carnivorous monster the size of a Siberian mammoth – "six times the cubic volume of the elephant" Jefferson would declare in *Notes* – but hailing from the New World, excited Jefferson.[132] Here, at last, was the kind of creature he needed to refute

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[130] "From Benjamin Franklin to Jean Chappe d'Auteroche, 31 January 1768," *Founders Online,* National Archives, https://founders.archives.gov/documents/Franklin/01-15-02-0017. Cf. Simpson (1942), 146.
[131] Semonin *American Monster*, 137; Kolbert, *The Sixth Extinction*, 27; and McKay, *The Discovery of the Mammoth*, 151-52.
[132] Jefferson, *Notes on the State of Virginia*, 45.

Buffon's libelous accusations of American degeneracy. Jefferson also found that upon having a chance to review the mysterious bones and grinding teeth for himself, that he too fiercely disagreed with Daubenton. In *Notes*, Jefferson savagely attacks the French naturalist's conclusion that the bones belonged to two different animals, the elephant and the hippo, wryly noting that "wherever these grinders are found, there also we find the tusks and skeleton: but no skeleton of the hippopotamus nor grinders of the elephant. It will not be said that the hippopotamus and elephant come always to the same spot, the former to deposit his grinders, and the latter his tusks and skeleton?"[133] Rather Jefferson felt that the only logical conclusion was that the bones belonged to a single hitherto unrecognized species, an opinion shared by Hunter and Buffon. However, he disagreed with Buffon's contention that the animal was extinct.

Jefferson's rejection of extinction was due to his religious convictions. A deist, Jefferson believed in a God who was the author of all creation, but he did not believe that this deity worked miracles or engaged in other forms of divine intervention.[134] It was Jefferson's deism which led him to create the Jefferson Bible: a copy of the New Testament from which he excised all references to miracles including Christ's resurrection. In *Notes*, Jefferson argues that "such is the economy of nature, that no instance can be produced of her having permitted any one race of her animals to become extinct; of her having formed any link in her great work so weak as to be broken."[135] Jefferson's skepticism regarding extinction was rooted in his deistic conception of creation as a machine so finely tuned as to never be in need of maintenance – hence no miracles – but also that such finetuning made it that if even one piece was to vanish – that is, go extinct –

[133] Ibid., 44.
[134] David L. Holmes, *The Faiths of the Founding Fathers* (Oxford UP, 2006).
[135] Jefferson, *Notes of the State of Virginia*, 53-4.

the whole apparatus would break down and cease to function. Ergo as a deist Jefferson believed that nature must by necessity be static and unchanging.

To refute Buffon's allegation of extinction, Jefferson argued that the *Incognitum* was still at large somewhere in the unexplored regions of North America. For evidence Jefferson turned to the traditions of the First Nations peoples. In *Notes* Jefferson cites a story that he had heard sometime between 1775 and 1781 from "a delegation of warriors from the Delaware tribe" who said that the huge bones which had come from the Ohio lick were those of the "Big Buffalo" who "in ancient times" had "begun a universal destruction" of the local wildlife ultimately resulting in "the Great Man above" descending from heaven, armed with lightning, and slaughtering the whole heard until only a single "big bull" remained. This bull then fled "over the Ohio, over the Wabash, the Illinois, and finally over the great lakes, where he is living to this day."[136] This Delaware myth would subsequently become one of the most widely reproduced passages in *Notes*.[137]

While French explores like Longueuil did not take the First Nation traditions about monsters seriously, Jefferson did; a sentiment shared by Gen. George Rogers Clark who in 1789 remarked that concerning Indigenous tradition; "I see no reason why it should not be received as good History, at least as good as a great part of ours."[138] This dismissive French attitude towards the Indigenous peoples of North America was still true in Buffon's time. In fact, Buffon himself had roundly criticized the First Nations in his *Natural History* as another proof of American degeneracy. Indigenous men, Buffon claimed, possessed "no hair, no beard, no ardour for their females" since their "organs of generation are small and feeble." This later assertion also meant

[136] Ibid., 43 and Hedeen, *Big Bone Lick*, 26–7.
[137] Semonin, *American Monster*, 183.
[138] Mayor, *Fossil Legends of the First Americans*, 32.

that Indigenous couples had very few children and because the women were forced to carry out the same drudgery as the men in their society, Buffon claimed that First Nations parents tended to be neglectful of those children they did have. Overall, concluded Buffon, the social bonds among the Indigenous peoples of the Americas – "their hearts frozen, their society cold, and their empire cruel" – were as weak as their bodies and minds when contrasted with that of Europeans.[139] Jefferson, for his part, took pains in *Notes* to defend the dignity of North America's Indigenous peoples from Buffon's aspersions.[140]

Moreover, Mayor has shown that the Delaware were not the only tribe with stories associating the bones from the Ohio salt lick with monsters that had been wiped out by supernatural means. In the summer of 1766, George Morgan, who served as George Washington's Indian agent for the Continental Congress, accompanied Franklin's aforementioned fossil dealer George Croghan, on one of his expeditions to the site, which the Shawne called the Great Buffaloes' Lick, and where Croghan recorded that the "extraordinary Bones of Elephants" could be found. Croghan's previous expedition a year before had been an ill-fated one. At the lick, Croghan and his Shawnees escorts had loaded a flatboat with bones and ivory, including a magnificent tusk measuring seven feet in length. Tragically the cargo was lost when a war party of eighty Mascoutins and Kickapoos from the Great Lakes attacked, killing several of the Shawnees, and capturing Croghan who just barely survived a hatchet blow to the head. Croghan managed to negotiate his release and was now prepared to return to the lick to try again.[141]

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[139] Wood, "Environmental Hazards, Eighteenth-Century Style," 16 and McKay, *Discovering the Mammoth*, 167-8.
[140] Jefferson, *Notes on the State of Virginia*, 58-64 and Wood, "Environmental Hazards, Eighteenth-Century Style," 25.
[141] Mayor, *Fossil Legends of the First Americans*, 10-11 and McKay, *Discovering the Mammoth*, 149.

Once at Big Bone Lick, Croghan and Morgan's party discovered the remains of at least thirty *Incognitum* skeletons from which they harvested numerous bones including a femur, a very large tusk, and huge jawbones with the bulbous molars intact. The men also met a war party of Iroquois and Wyandot at the site, who were traveling south to fight the Chickasaws once again. Leading this war party was a very old man of about eighty-four who Morgan immediately desired to speak with since he felt that "this venerable chief [was] a person from whom some knowledge might be obtained." Unfortunately, Morgan failed to record both the elderly chief's name and tribal affiliation. After presenting the chief with gifts of tobacco, paint, and ammunition, the old man shared with Morgan what he knew of the massive salt lick bones: The chief's story went that long ago "foolish young people, at length forgetting [the Great Spirit's] rules, became exceedingly ill-tempered and wicked."

> [Therefore,] the Great Spirit created the Great Buffalo, the bones of which you now see before us. These made war upon the human species alone, and destroyed all but a few, who repented and promised the Great Spirit to live according to his laws if he would restrain the devouring enemy. Whereupon he sent lightning and thunder, and destroyed the whole race in this spot.[142]

According to the old chief only a single pair of these monstrous bison, male and female, were spared by the Great Spirit and these "he shut up in yonder mountain, ready to let loose again should the occasion require."[143] As striking as this story recorded by Morgan may be, Croghan made an even more important observation of his own, noting that even the "oldest Indians had no traditional Trace" of seeing any of these beasts alive.[144]

Jefferson's interpretation of these Indigenous traditions was to treat them as testimonies affirming that the *Incognitum* or mammoth – Jefferson would use the terms interchangeably –

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[142] Mayor, *Fossil Legends of the First Americans*, 21-5.
[143] Ibid.
[144] Ibid., 19-21.

was an extant species which the First Nations people had direct knowledge of despite their own claims to the contrary. To this end Jefferson opens the section of *Notes* dealing with North American zoology by boldly declaring that of all New World quadrupeds "the Mammoth, or big buffalo, as called by the Indians, must certainly have been the largest. Their tradition is, that he was carnivorous, and still exists in the northern parts of America."[145] By interpreting Indigenous traditions this way, freely mixing scientific speculation with outright mythology, Jefferson was engaging in the cryptozoological practice of "the scientification of folklore."[146]

In 1784, around the same time that Gen. Clark's shipment of bones were finally reaching Monticello, Jefferson wrote to no less an authority than Yale College President Ezra Stiles looking for additional information about the bones discovered at Big Bone Lick. Stiles' replied that he was familiar with similar bones which had been uncovered by farmers working in the Hudson River Valley in New York and that it was his conviction that such bones were evidence of a prior race of humanoid giants. Stiles' view on this matter shocked Jefferson who could not believe that so learned a man could maintain so antiquated a view.[147]

In truth, Stiles' convictions were those of a previous century. Actually several. Since antiquity such bones as those which now preoccupied Jefferson had indeed been widely regarded as belonging to giants, first from classical myth and later Judeo-Christian scripture.[148] For example, in 1613, bones of extraordinary size were found in southeastern France at a sand quarry near the castle of the counts of Langon in Dauphine.[149] In this instance the bones were identified

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[145] Jefferson, *Notes on the State of Virginia*, 43.
[146] Semonin, *American Monsters*, 183.
[147] Hedeen, *Big Bone Lick*, 56-61 and Poole, *Monsters in America*, 44-5.
[148] See Adrienne Mayor's *The First Fossil Hunters: Dinosaurs, Mammoths, and Myth in Greek and Roman Times* 2nd Ed. (Princeton, NJ: Princeton UP, 2011) for the most detailed exploration of this topic. Cf. Claudine Cohen, *The Fate of the Mammoth* (1994) and McKay, *Discovering the Mammoth* (2017).
[149] Claudine Cohen, *The Fate of the Mammoth: Fossils, Myth, and History* (Chicago: U. of Chicago Press, 1994), 29.

by Pierre Mazurier, the master surgeon at Beaurepaire, as having belonged to the infamous northern barbarian King Teutobochus. After carefully measuring and examining the bones Mazurier published a pamphlet titled *A truthful account of the life, death, and bones of the giant Teutobochus* in which he declared the giant, in life, to have been approximately 30-feet-tall.[150] The bones were then shipped off to Nicholas Habicot, the master surgeon of the University of Paris, who confirmed Mazurier's analysis and published in his own pamphlet titled *Gigantostology, or An account of a giant's bones* (1613).

Hot on the heels of both works however was dissent in the form of an anonymously published pamphlet titled *Gigantomachy, a Response to Gigantostology* (1613). The author was Jean Riolan, a young botanist and anatomist. This sparked what historian of science Claudine Cohen has described as a "six-year war of pamphlets, tracts, and at least a dozen treatises" over the existence of giants.[151] On one side were established men like Mazurier and Habicot who relied on the authority of traditions handed down from time immemorial. On the other were brash upstarts like Riolan who relied on first-hand observation and thought that tradition could be fraudulent. In particular Riolan argued that the alleged bones of the giant Teutobochus were more likely those of an elephant.[152] However despite being a contested issue the traditional explanation for such huge bones being those of giants, what historian Paul Simonin calls the "doctrine of monsters," was still in vogue in the early 18th century.

Two years before the birth of Buffon, a five-pound tooth was dug out of the ground by an anonymous farmer near Claverack, in the Hudson valley, twenty miles south of Albany, in the summer of 1705, and declared that of a biblical giant.[153] The first published account of the

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[150] Ibid., 30.
[151] Ibid., 31.
[152] And he was more or less right; they were mammoth bones.
[153] Semonin, *American Monster*, 62 and Dugatkin, *Jefferson and the Giant Moose*, 83-4.

Hudson River Valley giant's tooth appeared in the *Boston News-Letter* on July 30, 1705, which described it as "a great prodigious Tooth . . . supposed by the shape of it to be one of the far great Teeth of a man; it weighs four pound and three quarters, the top of it is as sound and white as a Tooth can be, but the root is much decayed, yet one of the fangs of it hold half a pint of Liquor."[154]

Fittingly, considering the *Boston News-Letter*'s description, the tooth was purchased by one Peter Van Bruggen for exactly that much liquor. Bruggen then presented the tooth to Lord Cornbury, the governor of New York, who, in turn, sent it off to the Royal Society of London with the request that it be given to Gresham College. Cornbury next ordered the Recorder of the Assembly, Johannis Abeel, to conduct an investigate of the farm where the giant's tooth had been found. In his subsequent report Abeel said that he observed a thirty-foot-long skeleton *in situ* to which the tooth had belonged but that unfortunately the skeleton was too badly degraded and had crumbled into dust upon his attempt to excavate it.[155]

The following summer, more teeth and bones were found on the Hudson. This time Massachusetts governor Joseph Dudley decided to bring them to the attention of the Puritan theologian Cotton Mather. Though his involvement in the Salem witch trial scandal has forever branded him with the reputation of a superstitious dullard, Mather was one of the most important chroniclers of early America with essays regularly appearing in the publications of the Royal Society of London, the foremost academic institution in England at the time. Mather was especially interested in reports of monsters and his essays are filled with them including

[154] McKay, *Discovering the Mammoth*, 134.
[155] Ibid., 134-5.

"mermen, two-headed snakes, and devouring giants."[156] In one letter he even discusses the discovery of the bones of "A Monstrous Dragon" in Virginia.[157]

In November of 1712, Mather sent a letter addressed to John Woodward of the Royal Society of London who, in the 1690s, had written an *Essay toward a Natural History of the Earth* in which he defended the historicity of the biblical deluge. Mather believed that the discovery of giant bones and teeth in Claverack would be of especial interest to Woodward since they could be counted as empirical evidence in favor of the reality of Genesis 6:4: "There were giants in the earth in those days." In his letter, Mather mentions that Gov. Dudley's conjectures that it was impossible for the bones and teeth to have come from a whale or elephant as Claverack was too far from the sea to be the repository of whale bones and that the teeth were the wrong shape for an elephant's; the same observation that would later throw off Daubenton and so many others. Mather also cites the Puritan poet Edward Taylor, Ezra Stile's own grandfather, as reporting that upon hearing about the discovery of the bones and teeth many Indigenous people from all around came to see them and likewise affirmed that according to their own ancestor's tales these were the remains of humanoid giants.[158]

Whatever Woodward may have thought of Mather's letter was not recorded for posterity. However, two years after receiving them the Royal Society's secretary, astronomer Edmund Halley (after whom the famous comet is named), published a short summary of Mather's letter ignoring the clergyman's biblical exegesis on the bones and teeth and simply transcribing the

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[156] Susan Scott Parish, *American Curiosity: Cultures of Natural History in the Colonial British Atlantic World* (Chapel Hill, NC: U. of North Carolina Press, 2006), 39. For more on Mather's accounts of merfolk in early America see Vaughn Scribner, *Merpeople: A Human History* (London: Reaktion Books, 2020), 103-4 and Mark A. Hall, et al., *Merbeings: The True Story of Mermaids, Mermen, and Lizardfolk* (Charlottesville, VA: Anomalist Books, 2023), 46.
[157] Semonin, *American Monster*, 35-6.
[158] McKay, *Discovering the Mammoth*, 135-7.

physical description of them before ending with the pithy comment: "It were to be wish'd the Writer had given an Exact Figure of the Teeth and Bones."[159]

Teeth and bones of gargantuan proportions were still turning up in the Hudson valley around the same time that Jefferson was beginning to research and draft his response to Barbé-Marbois's questionnaire. We know this because in December of 1780, just before Christmas, General George Washington, having established winter quarters for the Continental Army near West Point, took time off during one of the most fraught periods of the Revolutionary War to go visit the farm of one Rev. Robert Anna who that previous September had unearthed several "monstrous grinders" from a shallow swamp on his property which he was endeavoring to drain.[160]

The fact that Jefferson rejected Stiles's interpretation of the Hudson valley teeth and bones as belonging to biblical giants speaks to the arbitrariness of cryptozoological euhemerism. Afterall as Stiles's own grandfather had testified the belief that these bones came from humanoid giants was not solely the contention of Christian literalists but was also maintained by the various Indigenous inhabitants in the area; "probably Iroquoian-speaking Mohawks, Algonquian, Mohicans, Abenakis, and Pequots" according to Mayor.[161] Why should their traditions about the bones not carry the same weight as what the Delaware, Iroquois, and Wyandot had said about the similar remains uncovered near the Ohio river? The only reason, clearly, was that these Indigenous people were not telling Jefferson what he wanted to hear, or at the very least presenting him with legends that could not be easily adapted into cryptozoological-style stories of extant carnivorous mammoths.

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[159] Ibid., 137.
[160] Semonin, *American Monster*, 175-6 and Poole, *Monsters in America*, 44.
[161] Mayor, *Fossil Legends of the First Americans*, 34.

Nevertheless, the appearance of what could even loosely be interpreted as monstrous creatures superficially matching the description of pachyderms proved a persistent puzzle for earlier generations of Americans folklorists.[162] As a result such tales have periodically been seized upon by cryptozoologists ever since Jefferson's time as evidence that Pleistocene megafauna survived in North America until at least the early 19th century.[163] However the most reasonable explanation for the presence of pachyderm-like monsters in First Nation's folklore was arrived at by George E. Lankford who posited that they learned about them from Africans who had escaped enslavement and taken refuge among Indigenous communities.[164]

The evidence that enslaved Africans could identify elephantine bones based on observation alone is documented by English naturalist Mark Catesby in his serialized *Natural History of Carolina, Florida, and the Bahama Islands* (1743).[165] Catesby documents how "at a place in Carolina called Stono, was dug out of the Earth three or four Teeth of a large Animal, which, by the concurring Opinion of all the Negroes, native Africans, that saw them, were the Grinders of an Elephant, and in my Opinion they could be no other; I having seen some of the like that are brought from Africa."[166] This sentiment was later echoed in a Nov. 29, 1782, letter

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[162] W.D. Strong, "North American Indian Traditions Suggesting a Knowledge of the Mammoth," *American Anthropologist* Vol. 36 no. 1 (Jan. - Mar., 1934): 81-88.

[163] See George M. Eberhart's entry for the "Stiff-Legged Bear" in *Mysterious Creatures: A Guide to Cryptozoology* (ABC-CLIO, 2002).

[164] George E. Lankford, "Pleistocene Animals in Folk Memory," *The Journal of American Folklore* Vol. 93 no. 369 (Jul. - Sep., 1980): 293-304. For evidence that African folklore influenced Indigenous American folklore Lankford cites Alan Dundes, "African tales among the North American Indians," *Southern Folklore Quarterly* Vol. 29 no. 3 (1965): 207-19.

[165] Catesby's also may have recorded the earliest accounts of another famous American cryptid, the thunderbird, with his accounts of "an Eagle of a small size, yet has great strength and spirit, preying on Pigs, Lambs, and Fawns." See Jack E. Davis, *The Bald Eagle: The Improbable Journey of America's Bird* (New York: Liveright, 2022), 157 & 136-68.

[166] Semonin, *American Monster*, 85-6 & 194; Mayor, *Fossil Legends of the First Americans*, 56; and McKay, *Discovering the Mammoth*, 137-38. Cf. Christian Elliott, "The First Fossil Finders in North America Were Enslaved and Indigenous People," *Smithsonian Magazine*, Feb. 22, 2023: https://www.smithsonianmag.com/history/the-first-fossil-finders-in-north-america-were-enslaved-and-indigenous-people-180981615/

from Major Arthur Campbell to Jefferson in which he noted that he had shown one of the mysterious teeth to "several sensible Africans […] all of whom pronounced it an Elephants."[167]

While these could not have been the same type of masticating teeth which had been found at Big Bone Lick or recovered from the Hudson valley farms, they nevertheless demonstrate the ability of enslaved Africans to readily identify bones at least similar to those of an animal that until relatively recently they had lived alongside.[168] This makes it far more likely that the various First Nations with traditions featuring monsters somewhat reminiscent of elephants learned of these creatures from formerly enslaved Africans rather than direct experiences with creatures that they claimed to have never seen.

In the early 19th century, the same brilliant young French paleontologist, George Cuvier, who had identified Patersonius Hayn's Carpathian dragon skulls as those of extinct cave bears, used the same method of comparative anatomy to deduce that the bones of the *Incognitum* came from a type of prehistoric elephant which he dubbed the *Mastodon*. The name means "breast tooth" in reference to the mystifying bulbous molars, and like all pachyderms it was an herbivore. But such a revelation was still in the far future for Jefferson. Now, in the aftermath of the Revolutionary War, Jefferson only knew of the cryptid *Incognitum* which he reasoned must be hiding "in the northern and western parts of America."[169] That portion of the country which, as he would write in *Notes*, "still remain in their aboriginal state, unexplored and undisturbed by us."[170]

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[167] Semonin, *American Monster*, 192-4.
[168] Because the teeth resembled those of modern elephants McKay suggests that they were those of a Columbian mammoth (*Mammuthus columbi*) which would not be recognized by paleontologists until 1857.
[169] Cohen, *The Fate of the Mammoth*, 86–7.
[170] Jefferson, *Notes on the State of Virginia*, 54. Cf. Mayor, *Fossil Legends of the First Americans*, 57.

As French historian of science Claudine Cohen has mused, "a good lawyer, Jefferson refused to accept negative arguments as proof" when considering the existence of monstrous creatures dwelling in the American interior.[171] For Jefferson, as with many modern-day cryptozoologists and their respective quarry, the reality of the *Incognitum* was a given. All that remained now was the relatively simple matter of finding one.

[171] Cohen, *The Fate of the Mammoth*, 86–7.

2.2: The Moose

On May 17, 1784, the Confederation Congress appointed Thomas Jefferson as a Minister Plenipotentiary to the Court of Versailles in Paris. There Jefferson would rendezvous with Benjamin Franklin and John Adams, who had been previously dispatched to Paris, in 1776 and 1778 respectively, with the mission of securing France's aid in the Revolutionary War.[172] Largely due to the efforts of Franklin, France had agreed to aid the fledgling colonists in their struggle to secede from the British Empire and on September 3, 1783 the Revolutionary War officially ended when Adams, alongside Franklin, John Jay, and Henry Laurens, met with British representatives David Hartley and Richard Oswald to sign the Treaty of Paris which officially recognized the United States of America as an independent country.

However, even with the war having ended, the battle for America's dignity was still raging, both in France and elsewhere.[173] Jefferson's task as ambassador would be the promotion of American interests not only in France but throughout the whole of Europe. To this end Jefferson saw his new position as offering him the unique opportunity to finally confront Georges-Louis Leclerc, Comte de Buffon, face-to-face over the issue of American degeneracy. As a result, Jefferson could not wait for some intrepid explorer to find him a living *Incognitum*. Rather Jefferson needed a bona fide example of American megafauna, and he needed it now. Jefferson's first inclination was to procure the skin of an especially large North American cougar (*Puma concolor couguar*), which he did from a Philadelphia haberdashery shortly before departing for Paris.[174] But a cougar skin, no matter how large, did not fully satisfy Jefferson's theatrical instincts. To impress upon Buffon just how wrong he was in his assessment of

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[172] Joseph J. Ellis, *American Sphinx: The Character of Thomas Jefferson* (New York: Vintage Books, 1998), 73-138.
[173] Brian Switek, *Written in Stone: Evolution, the Fossil Record, and Our Place in Nature* (New York: Bellevue Library Press, 2010), 174.
[174] Dugatkin, *Jefferson and the Giant Moose*, 81-2.

America's biological virility; Jefferson knew that bigger is always better. But when it came to overall size and power what animal could possibly compete with the mammoth-like *Incognitum*? As it turned out Jefferson suspected he knew one which just might be a suitable substitute: the moose.

The second largest land animal indigenous to North America, after the buffalo, an adult bull moose (*Alces alces*) will on average reach five to six and half feet at the shoulders, measure up to ten feet in length, with antlers spanning between four and six feet across.[175] In terms of weight an adult moose will average between 550 and 770 pounds, though some individuals can attain far greater weights. The Kenai Moose Research Center in Soldotna, Alaska reports that the heaviest bull ever documented reached 1,699 pounds.[176] However biologist Lee Kantar claims that the true record holder is a moose known as the Masardis Bull which was killed in Maine in 1982 and whose total weight was more than 1,700 pounds.[177]

Because of this it is easy to begin to understand how the moose quickly obtained a reputation as an object of wonder and controversy among early European settlers in the New World. On the side of wonderment, one only needs to read English travel writer John Josselyn's description of the North American moose as presented in his popular 1674 book *An Account of Two Voyages to New England*.

> The *Moose* or *Elke* is a Creature, or rather if you will a Monster of superfluity. A full grown *Moose* is many times bigger than an *English* Oxe, their horns as I have said elsewhere, very big (and branch out into palms) the tips whereof are sometimes found to be two fathoms asunder (a fathom is six feet from tip of one finger to the tip of the other, that is four cubits), and in height from the toe of the forefoot, to the pitch of the shoulder twelve foot, both which have been taken by some of my *sceptique* Readers to be monstrous lies.[178]

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[175] Kevin Jackson, *Moose* (London: Reaktion, 2008), 15-16.
[176] Ibid., 15.
[177] Kathryn Skelton, "Weird, Wicked Weird: The Ghost Moose that Got Away," *Sun Journal* (6/21/2019): https://www.sunjournal.com/2019/06/21/weird-wicked-weird-the-ghost-moose-that-got-away/
[178] Jackson, *Moose*, 80.

Josselyn saw the moose as a New World monster, as undoubtedly did many other early settlers; a creature so fantastic that its description inspired incredulity in skeptical readers back in England just as descriptions of cryptids do for some today. The wondrousness of the moose's appearance is also related directly to what was the most controversial aspect of it, namely its taxonomy which also serves as an excellent case study for why Swedish taxonomist Carl Linnaeus's system of binomial nomenclature was so sorely needed by the 18th century.

Biologically the North American moose is indistinguishable from the European elk. However, when European explorers first arrived in North America, they initially encountered two types of deer unique to the New World. One was the white-tailed or Virginia deer (*Cariacus virginianus*) while the second was a larger variety that the Shawnee and Cree knew by the name "wapiti" (*Cervus canadensis*), but which Anglo settlers referred to as an "elk" so as to distinguish it from its smaller relative. The result of this was that the true North American elk became confusingly known as the moose so as to distinguish it from the larger of the two types of deer.[179] The English term "moose" is derived from several related words used by the various Algonquin speaking nations, all of which mean "he strips or eats off" in reference to the moose's habit of eating the young bark off trees.[180]

But the confusion didn't end there. In 1695 the Irish physician Thomas Molyneux published a description in the *Philosophical Transactions of the Royal Society* of a pair of enormous fossil antlers spanning some twelve feet in length and weighing nearly 100-pounds which had been recovered from a peatbog near Dardistown in Fingal, Ireland. Such prodigious antlers were remarkably common in Ireland with the earliest illustration of a pair dating back to 1588. Moreover, paleontologist Stephen J. Gould writes that "before attracting the attention of

[179] Ibid., 9-11.
[180] Ibid., 84-5.

scientists" such antlers were used by the Irish peasantry "as gateposts and, in one instance, even as a temporary bridge to span a rivulet in County Tyrone."[181] An observation that contradicts Mayor's contention that fossils were typically treated as objects of awe and reverence by pre-scientific societies.

Molyneux's conclusion about what type of animal the antlers had belonged to is spelled out in the title of his paper: "A Discourse Concerning the Large Horns Frequently Found under Ground in Ireland, Concluding from Them That the Great American Deer, Call'd a Moose, Was Formerly Common in That Island: With Remarks on Some Other Things Natural to That Country." In other words, Molyneux believed that the fossil antlers belonged to an Irish variant of the North American moose or European elk. For this reason, he dubbed the creature the Irish Elk (*Megaloceros giganteus*). The largest deer to ever live, the Irish Elk's dimensions dwarf those of the modern moose at a height of seven feet at the shoulders with antlers spanning some twelve feet end-to-end. The largest set of Irish Elk antlers ever recovered weighed ninety pounds, twenty pounds heavier than the largest set of moose antlers on record.[182]

When it came to the Irish elk, Molyneux's thinking anticipated, and may have in fact influenced, Jefferson's own ideas about hypothetical megafauna. As Bernice M. Murphy reminds us, the British colonization of Ireland, specifically the suppression of the Desmond Rebellions in 1569–1573 and 1579–1583, should be seen as a dry run for the later project of colonizing North America.[183] Many of the negative attributes which Buffon and his colleagues ascribed to North

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[181] Stephen J. Gould, "The Misnamed, Mistreated, and Misunderstood Irish elk," in *Ever Since Darwin* (W.W. Norton, 1977), 80. Gould recounts another, "probably apocryphal" tale which "tells of a huge bonfire made of giant deer bones and antlers in County Antrim to celebrate the victory over Napoleon at Waterloo." Such utilitarian uses of fossils were not uncommon, with cetacean fossils being put to similar ends in 19th century southern Alabama. See Switek, *Written in Stone*, 147.
[182] Killian Quigley, "Boggy Geography and an Irish Moose," *The Eighteenth Century*, Vol. 54, no. 4 (2017): 393.
[183] Bernice M. Murphy, "The Cabin in the Woods: Order versus Chaos in the 'New World'," in *The Rural Gothic in American Popular Culture: Backwoods Horror and Terror in the Wilderness* (London: Palgrave Macmillan, 2013), 26.

America had first been used to caricature Ireland including claims that the land was pockmarked with swamps, the air suffused with a noxious miasma, and the people of a disagreeable disposition.[184]

Molyneux, like Jefferson, was also a political revolutionary, an advocate for Irish independence from Britain, and thus not inclined to accept such slanderous accusations about his homeland.[185] Moreover Molyneux, like Jefferson, believed that the best way to refute such claims was via the marshalling of his newfound monster since, as would be the case with Jefferson, Molyneux's intense interest in his pet cryptid played into his political convictions. Molyneux reasoned that if the Irish Elk was identical to the North American moose than Ireland too had more in common with North America than it did with England. In particular, Molyneux likened Ireland to Mount Desert Island off the coast of Maine; a state that would subsequently become famous for its reports of cryptid giant moose.[186]

However, Molyneux found himself faced with the same dilemma that Jefferson had encountered with the *Incognitum*, namely that his prized Irish Elk did not appear to be extant or at least not currently residing in Ireland. Like Jefferson, Molyneux did not endorse what he considered the heretical notion of extinction, making it even more important that the Irish Elk be identical to the North American moose. For while such animals clearly no longer existed in Ireland – Molyneux speculated that this might indeed be due to "a certain ill constitution of [the Irish] air," if not human predation – the notion that the stupendous Irish Elk had not completely died out but merely relocated to another continent meant that Molyneux could safely maintain the position "that no real species of living creature is so utterly extinct, as to be lost entirely out

[184] Quigley, "Boggy Geography and an Irish Moose," 388-89.
[185] Ibid., 386-87.
[186] Ibid., 387 & 395. For a thorough rundown of Maine's cryptid giant moose reports see David Weatherly, *Monsters of the Pine Tree State: Cryptids & Legends of Maine* (Eerie Lights, 2023), 13-31.

of the World, since it was first created, is the opinion of many naturalists; and 'tis grounded on so good a principal of Providence taking care in general of all its animal productions, that it deserves our assent."[187]

Molyneux's conjectures about the relationship between the Irish Elk and the moose were pure speculation. Molyneux would never travel to North America and his primary source for information about the moose, Johannes de Laet's *New World or Description of the West Indies* (1625), was likewise written by someone with no firsthand experience with the animal; though de Laet nevertheless claimed that the moose was "next [to] the Elephant, to be the most remarkable *Quadruped* for its largeness in the World."[188]

Molyneux's speculation that the North American moose may be the Irish Elk and thus, like Jefferson's *Incognitum*, a holdover from prehistory caught the attention of Pehr Kalm, a young Swedish naturalist and pupil of Linnaeus. Between 1747 and 1751, Kalm traveled to North America to survey the continent's flora and fauna. In November of 1747, Kalm wrote the following with regards to the Irish Elk-moose controversy.

> They sometimes dig very long and branched horns out of the ground in Ireland, and nobody in that country or anywhere else in the world knows an animal which has such horns. This has induced many people to believe that it is the moose-deer so famous in North America, and that the horns found were of animals of this kind which had formerly lived in that island but gradually became extinct. It has even been concluded that Ireland in distant ages was either connected to North America or that a number of little islands which are lost at present made chain between them.[189]

To investigate the matter, Kalm began making numerous inquiries among the colonists asking if anyone had seen a moose whose dimensions matched that of the Irish Elk. Eventually Kalm found himself in dialogue with Benjamin Franklin who recalled having seen, as a boy, a

[187] Jackson, *Moose*, 114. Cf. Gould, "The Misnamed, Mistreated, and Misunderstood Irish elk," 82.
[188] Quigley, "Boggy Geography and an Irish Moose," 394.
[189] Jackson, *Moose*, 92-3.

pair of captured moose in Boston. These moose, Franklin said, were to be shipped across the sea to England's Queen Anne and were of a sufficiently impressive size with "the height of the animal up to its back" the equivalent "of a pretty tall horse" with "its head and its horn… still higher" but nevertheless "not of such size as they must have been, if the horn found in Ireland were to fit them."[190] As a result of the testimony of Franklin and other colonial intellectuals, Kalm remained skeptical if the American moose was really the same animal as the Irish Elk, though his report – which Jefferson read – did little to end this debate which continued to rage throughout the 18th century until 1812 when, once again, George Cuvier settled the issue via a detailed anatomical analysis which allowed him to conclude that the Irish Elk was a separate species from the moose.[191] But until then, Jefferson remained enthusiastic in his conviction that he could locate a suitably monstrous moose to play against Buffon.

Specifically, Jefferson wanted a moose so large that a Eurasian reindeer (*Rangifer tarandus*) — which on average grow to about four and a half feet at the shoulder — could walk underneath it.[192] This rather picturesque and humorous request was on account of Buffon's greatly exaggerated description of the size and majesty of the Eurasian reindeer in *Natural History* in direct contrast to that of the North American moose and European elk which Buffon had no access to since elk had been extinct in France since the 10th century.[193] In fact, as Jefferson would subsequently learn and relay to fellow Virginian Col. Archibald Cary, Buffon was "absolutely unacquainted" with the European elk having only seen a live one just two

[190] Ibid., 93.
[191] Gould, "The Misnamed, Mistreated, and Misunderstood Irish elk," 79-90 and Jackson, *Moose*, 112. Cf. Karl P.N. Shuker, *In Search of Prehistoric Survivors: Do Giant 'Extinct' Creatures Still Exist?* (London: Blandford, 1995), 167-69 and Martin J.S. Rudwick, *The Meaning of Fossils: Episodes in the History of Paleontology,* 2nd Ed. (Chicago: U. of Chicago Press, 1985), 172-73.
[192] Dugatkin, *Jefferson and the Giant Moose*, 95.
[193] Jackson, *Moose*, 37.

months before Jefferson's appointment as ambassador to France.[194] This had been a three-year-old elk cow, captured near Moscow, and exhibited at a Parisian fair in March of 1784. Amusingly the showman in charge of the animal told Buffon that this elk had recently shed her antlers when in reality female moose lack antlers. Buffon however believed this lie leading him to commission an engraving reflecting this, making one of the few images of a moose in *Natural History* unintentionally that of a hermaphroditic animal.[195]

All this left Jefferson more eager than ever to use the American moose to once and for all refute Buffon's claims of American degeneracy.[196] In his *Notes on the State of Virginia*, immediately preceding his diatribe on the possibility of extant mammoths, Jefferson writes that "the elk of Europe is not two-thirds" the height of the American moose and that he has personally "seen a skeleton [of a moose] 7 feet high, and from good information believe that they are often considerably higher."[197]

However as with the *Incognitum*, Jefferson's "good information" largely consisted of rumor and hearsay, mostly arriving in response to a sixteen-point questionnaire which he had distributed to anyone who he thought might have firsthand knowledge of the animal.[198] Ezra Stiles told Jefferson that he had seen a female moose calf at least as tall as an adult male reindeer. John Sullivan, attorney general of New Hampshire, reported that numerous local hunters had claimed that they'd seen adult male moose that stood eight and half to ten feet at the shoulder.[199] One of Sullivan's contacts, Lieutenant-Colonel John McDuffee of Rochester, New Hampshire, claimed that in one Pequawket village he had seen an antler from a moose so

[194] "From Thomas Jefferson to Archibald Cary, 7 January 1786," Founders Online, National Archives, https://founders.archives.gov/documents/Jefferson/01-09-02-0143.
[195] Jackson, *Moose*, 94-95.
[196] Dugatkin, *Jefferson and the Giant Moose*, 19–20.
[197] Jefferson, *Notes on the State of Virginia*, 53.
[198] Jackson, *Moose*, 96-97.
[199] Dugatkin, *Jefferson and the Giant Moose*, 89-91.

large that it was used as a baby's cradle.[200] A later 1798 New York broadside published by a "G. Forman" upped the size of the average moose to twelve feet at the shoulder, or twice as tall as the largest adult male moose on record.[201]

In the spring of 1784, just prior to his voyage to France, Jefferson tasked John Sullivan with the job of procuring the skeleton, antlers, and skin of a suitably large moose and shipping them to his new residence in Paris. Jefferson made it clear that money was no object as the expedient acquisition of such an animal was "more precious than you can imagine."[202] As Lee Alan Dugatkin points out, what makes Jefferson's strongly worded instructions to Sullivan all the more striking is the fact that they occurred during a pivotal period in both Jefferson's political career and the early days of the United States as an emergent nation. During the same period in which Jefferson was corresponding with Sullivan he was also exchanging "letters with James Madison over disputes between various states in the fledgling republic, with George Washington regarding commercial treaties in Europe, and with John Adams and Benjamin Franklin regarding their appointments as ambassadors to France."[203] When considered in this context one can see that Jefferson's hunt for a monstrous moose was not a leisure interest used to fill an inactive politician's idle time. Rather in Jefferson's mind Sullivan's moose hunt truly constituted a matter of dire national importance.

In response to Jefferson's request Sullivan assembled a team of contract hunters with plans to set out during the winter of 1784 to '85 in search of the largest moose they could find.

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[200] Jackson, *Moose*, 97 and Dugatkin, *Jefferson and the Giant Moose*, 91. Dugatkin mistakenly attributes this claim to Sullivan himself rather than McDuffee, while Jackson mistaken identifies McDuffee as hailing from New York instead of New Hampshire.
[201] Dugatkin, *Jefferson and the Giant Moose*, 94.
[202] "From Thomas Jefferson to John Sullivan, 7 January 1786," Founders Online, National Archives, https://founders.archives.gov/documents/Jefferson/01-09-02-0145. Cf. Dugatkin, *Jefferson and the Giant Moose* (2009), 96.
[203] Dugatkins, *Jefferson and the Giant Moose*, 94-95.

To this end Sullivan collected a crew of twenty men headed up by Captain Robert Colburn of Lebanon on the Connecticut River. While we don't know the identities of every man on Sullivan's, and by extension Jefferson's, payroll it is possible they may have included the aforementioned Lt. Col. McDuffee as well as two New Hampshire hunters, Gilbert Warren and Jonathan Dore, who Sullivan had forwarded Jefferson's questionnaire to and who had responded in kind.

Jonathan Dore is especially interesting having been abducted in June of 1746, at the age of twelve, by an Abenaki raiding party. He was subsequently raised by the Abenaki as one of their own and lived with them for thirty-years. Dore learned how to hunt and fight with a tomahawk and married an Abenaki woman with whom he had two children. During the French and Indian War (1754-1763) Dore participated in the raid on Fort William Henry in August of 1757. When Major Robert Rogers attacked the Abenaki in 1759 in retaliation for this raid, Dore "witnessed the massacre" which included his wife and children. Somehow Dore managed to escape the conflagration and returned to Rochester in 1760 at the age of twenty-six.[204] Because of his experiences Dore's intimate knowledge of the Abenaki and New England wildlife was highly valued by Sullivan.[205]

During his time with the Abenaki, Dore undoubtedly learned much of their mythology and folklore including that pertaining to the moose. According to versions of traditional Abenaki tales collected in the early 20th century, the culture hero and demiurge Glooskap originally made the moose the largest of all terrestrial beasts only to subsequently realize that the animal was too

[204] Linda Sargent, "Terror in Rochester: The Captivity of Jonathan Dore," (Jan. 1, 2008): https://socialgenealogy.files.wordpress.com/2009/12/jonathandore.pdf. Cf. Thomas Jay Kemp, "New Family Story Find: My 18th Century Uncle Jonathan Dore," *Genealogy Bank* (Aug. 15, 2014): https://blog.genealogybank.com/new-family-story-find-my-18th-century-uncle-jonathan-dore.html

[205] "From John Sullivan, with John McDuffee's Answers to Queries concerning the Moose, 5 March 1781–12 March 1784," Founders Online, National Archives, https://founders.archives.gov/documents/Jefferson/01-07-02-0024.

formidable and impossible for man to kill. To rectify this, Glooskap squeezed the moose between his hands in order to reduce its size. While this process worked it also left the animal deformed and gangly looking.[206]

Tales of Glooskap and the moose are also present among other Wabanaki nations of New England of which the Abenaki are a part. The Penobscot of Old Town, Maine tells of how in his journeys Glooskap once came across a lakeside village in distress for they were being terrorized by "a giant magic moose, for fear of whom we can hardly go hunting. He has killed many of us." Glooskap vows to hunt down and slay this beast and with the aid of his trusty hunting dog quickly picks up the trail. Soon Glooskap catches up with the giant moose, but the monster is not so easily overtaken. For four days Glooskap pursues the monstrous moose until it finally slows from exhaustion, and he is able to kill it. Glooskap then begins the process of gralloching the giant moose.

> He took his insides out and threw them to his dog. They reached the distance of three 'looks.' His dog ate as far as they went. As the intestines fell in the water, so they lay and sank, turning into stone, and may still be seen white on the bottom of the river. Now it is called Musi'katci ('moose hind-parts'). Then he turned his dog into stone, and there he sits too. Then [Glooskap] returned and cooked his moose-meat in his kettle near the big lake. When he had eaten, he turned his kettle over, and left it there turned into stone. Now it may still be seen. It is the mountain called Kineo. Then he went back and told his people, his descendants, 'Now I have killed the big beast. He will never bother you again.' They rejoiced, and said, 'You have done very much for us. We thank you exceedingly all together.'[207]

While the geo-mythological aspects of this tale recall the similar stories told by the Abenaki to Charles le Moyne about the fossils at Big Bone Lick, the story of Glooskap and the giant moose serves as a reminder of Pratik Chakrabarti's critique of the euhemeristic

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[206] Jackson, *Moose*, 88-89. Cf. Richard Erdoes and Alfonso Ortiz, *American Indian Myths and Legends* (New York: Pantheon Books, 1984), 181.

[207] Frank G. Speck and Newell Lion, "Penobscot Transformer Tales," *International Journal of American Linguistics* Vol. 1, no. 3 (Aug. 1918): 202-04. According to Speck and Lion, a 'look' is the Penobscot equivalent of "a league" or "about two hundred yards." See page 197, no. 1.

interpretation of such myths favored by paleo-cryptozoologist Adrienne Mayor as the geological features associated with the "giant magic moose" are not fossils but the Penobscot riverbed and Mount Kineo in Maine.[208] Clearly the intention behind such traditional stories is not the proto-scientific description of some prehistoric beast nor even of an accurate geological description of the surrounding landscape seeing how Mount Kineo doesn't even remotely resemble a cauldron. Rather the identification of key landmarks with such a legend is intended to demarcate the borders of Penobscot territory. This becomes especially clear when one notes that the name Penobscot (derived from Pαnawάhpskewi) means "the people of where the white rocks extend out" a reference to the same white rocks found along the bed of the Penobscot River and said to be the remains of the monstrous moose's intestines which Glooskap's dog did not consume.

Conversely, some Wabanaki moose myths do seem to point to an underlying zoological reality. One story recorded by famed 19th century American poet and naturalist Henry David Thoreau and shared by both the Penobscot and Mi'kmaq of Nova Scotia, describes how in time immemorial "the moose were much larger; that they did not use to be in the woods, but came out of the water, as all deer did. Moose was whale once. Away down Merrimack way, a whale came ashore in a shallow bay. Sea went out and left him, and he came up on land a moose."[209] While the transformation of a whale into the first moose is fantastic, such a tale reminds us that moose are highly adept in the water, capable of swimming up to speeds of at least six miles per hour and according to Canadian mammalogist Randolph L. Peterson diving to depths of at least eighteen feet.[210] Such Indigenous traditions likely influenced not only Dore's views of the moose but those of Sullivan and his entire team as well. Evidence of this can be seen in Dore's report to

[208] Chakrabarti, *Inscriptions of Nature*, 108-9.
[209] Henry David Thoreau, *The Maine Woods* (1864), 151. Thoreau endorsed the idea that moose used to be much bigger.
[210] Randolph L. Peterson, *North American Moose* (Toronto, Ontario: University of Toronto Press, 1995), 107-8.

Jefferson that during his time with the Abenaki he had seen adult moose "about ten feet high."[211] Likewise one suspects that Lt. Col. McDuffee's claim of a giant moose antler being used as a baby's cradle by a Pequawket mother is more likely a folktale he heard than anything he actually witnessed.[212]

Of course, one should not forget that such cultural exchanges are always reciprocal. A popular superstition among Europeans dating back to the 16th century writings of Olaus Magnus was that the back left hoof of the moose possessed medicinal properties effective in the treatment of epilepsy.[213] European settlers carried such beliefs with them to the New World and introduced them to the Indigenous peoples early on as documented by Father Joseph Jouvency, a French Jesuit missionary who proselytized to the Wyandot of Quebec between 1611-1650 and recorded hearing this exact same folk remedy for epilepsy among them.[214]

By late 1785, Sullivan had still not managed to locate Jefferson's oversized ungulate and the pressure to do so was mounting as Jefferson had finally managed to secure an audience with Buffon after gifting him the aforementioned cougar skin which he had purchased in Philadelphia. The two men dined together at the Count's home at Montbard in January of 1786. Even though Jefferson still did not have his moose, he nevertheless proceeded to lecture Buffon on the size and power of the animal. Jefferson's willingness to lecture a celebrated naturalists like Buffon on a subject he was neither an expert on nor had any physical evidence for is indicative of the behavior of many modern cryptozoologists who are characteristically bold in their propensity to challenge established authorities on subjects which they often possess only a rudimentary knowledge of. And while skeptical of Jefferson's claims, Buffon was also opened-minded which

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[211] Dugatkin, *Jefferson and the Giant Moose*, 91.
[212] Thanks to folklorist Bill Ellis for this observation.
[213] Jackson, *Moose*, 46-9. We'll be meeting Olaus Magnus again in the chapter on the great sea-serpent.
[214] Ibid., 72-3.

encouraged Jefferson's conviction that should Sullivan find him a suitably robust moose he could persuade Buffon to renounce his theory of American degeneracy.

But it would be nine months before Sullivan's team of contract hunters finally managed to bag a moose in the winter of 1787, one they hoped would "answer [Jefferson's] Expectations."[215] Word of their success reached Jefferson on January 26, 1787, via a brief letter from Sullivan, followed by a more detailed account on April 16th. Between these two letters Sullivan apologized for the delay but maintained that it was only "want of opportunity" on account of the weather; "the winter proved extraordinary, much snow but no Crust till the Last of March."[216]

Once the weather had cleared Sullivan reported that Cpt. Colburn and his team of twenty men immediately "sallied forth […] and with Difficulty killed [a moose] in Vermont State."[217] Now "the whole Skeleton of a Moose" was being transported down the "Connecticut River" to Sullivan who "expect[ed] it in a sleigh as soon as the Roads are broken through the snow which is now very Deep and no time shall be Lost in forwarding the same to your Excellency."[218] It would end up being fourteen days before the carcass of the moose arrived at Sullivan's, at which point it had already transversed some twenty miles. Not surprisingly Sullivan reported that "the remaining flesh" was already "in a state of putrefaction" thus necessitating that "every Engine [be] set at work to preserve the Bones and Cleanse them from the remaining flesh, and to preserve the skins with the hair on, with the hoofs on and Bones of Legs and thighs in the skin

[215] "To Thomas Jefferson from John Sullivan, 26 January 1787," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-11-02-0073.
[216] Dugatkin, *Jefferson and the Giant Moose*, 97.
[217] "To Thomas Jefferson from John Sullivan, 16 April 1787," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-11-02-0285.
[218] "To Thomas Jefferson from John Sullivan, 26 January 1787," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-11-02-0073.

without putrefaction."[219] Somehow, during this process, the antlers of the moose were lost or destroyed, necessitating that Sullivan procure another pair which he assured Jefferson could "be fixed on" to this moose "at pleasure."[220]

With the taxidermy completed Sullivan borrowed forty-five pounds sterling from his brother to prepare the moose for transport, his plan being to ship the animal from Portsmouth, New Hampshire through England and onto Havre-de-Grâce in northern France where Jefferson could arrange to have it picked up.[221]

Unfortunately, Jefferson would not receive his moose skeleton and skin—along with the antlers of a different moose—until late September/early October 1788 due to various delays and mishaps including the crate containing the animal being initially left on the dock in New England and then subsequently misplaced en route. However, once Jefferson had the moose, he had it sent straightaway to Buffon along with a note apologizing that the specimen was on the smaller side – it was only a seven-footer – but assuring the Count that American moose did get much larger.[222]

How much of an impression Jefferson's moose ultimately made on Buffon, if any at all, is unknown. Within six months of receiving the moose, Buffon was dead—having never retracted his claim of American zoological inferiority.

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[219] "To Thomas Jefferson from John Sullivan, 16 April 1787," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-11-02-0285.
[220] Ibid.
[221] Dugatkin, *Jefferson and the Giant Moose*, 98.
[222] Ibid., 98-100.

2.3: The Megalonyx

On March 10, 1797, Thomas Jefferson stood before an assemblage of the most learned men in the fledgling United States, the American Philosophical Society. Jefferson had been a member of the Society since 1780 and on this occasion his visit to the Society's headquarters in Philadelphia was not only to deliver a technical paper he had prepared on some unusual bones uncovered in a Virginian cave, but also to accept the distinction of being elected the Society's third president; a position he would retain until 1819.

Jefferson had returned to the United States in September of 1789, France having recently been consumed by revolutionary fervor of its own. Once back home Jefferson learned that he was to become the first secretary of state under President George Washington, a position he held until 1793 when he resigned due to political disagreements. Choosing to return to his life as a scholar-farmer at Monticello, Jefferson did not resume his political career until 1796 when he felt the call to public office once again and began campaigning for the presidency only to lose to John Adams. In those days the runner-up in a presidential race assumed the role of vice president, an office which Jefferson accepted after some deliberation. This too occurred in March of 1797. Clearly Jefferson was entering another period of great political turmoil when his considerable abilities would be fully taxed. Nevertheless, it was during this time that Jefferson chose to resume his cryptozoological activities following an April 11, 1796, letter from one Colonel John Stuart.

Col. John Stuart was a pioneering settler, Revolutionary War commander, and Virginian delegate to the ratification of the Constitution, which likely explains how he knew Jefferson. By 1796 Stuart was serving as county clerk of Greenbriar County, which was then located in Virginia but today is part of West Virginia. In the spring of that year Stuart heard rumor of the

discovery of some large and unusual fossil bones in Organ Cave; a local saltpeter cave only about five miles from his home and which was owned and operated by a man named Frederick Cromer.

Saltpeter (*potassium nitrate*) is a commonly occurring impurity in salt and constitutes one of the major components of gunpowder. This made saltpeter a highly prized natural resource, one which had given the colonists a clear advantage over the British during the Revolutionary War and abetted the beginnings of American gun culture. Jefferson's home state of Virginia was a primary producer of saltpeter at this time and Jefferson had direct ties to the business of saltpeter extraction, having investments in several Virginian caves which served as a source of passive income to help pay off his many debts.[223] Jefferson was also part of the Saltpeter Committee, along with Benjamin Franklin, Thomas Paine, Patrick Henry, and R.H. Lee, which had been formed to help stabilize an industry which while run by private citizens was heavily relied upon by the U.S. military.[224]

Mining for saltpeter is best undertaken in cold dry weather which suggests that the bones discovered at Organ Cave were most likely recovered between January and March of 1796.[225] Like Jefferson, Col. Stuart had a keen interest in natural history. He had also read *Notes on the State of Virginia* and so knew of Jefferson's "very curious desire for Examining into the antiquitys of our Country."[226]

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[223] Marcia Wilson, "What is the Thing, Thomas Jefferson?: How Stories of West Virginia Spooks and the Midnight Unknown Shaped the birth of American Paleontology" (W.V. Writer's Competition, 2004), 12-13. Cf. David Cressy, *Saltpeter: The Mother of Gunpowder* (Oxford, 2013), Chapter 8.
[224] Ibid., 13 n. 25.
[225] Marcia Wilson gives the date of 1791 but this must be a mistake or typo.
[226] "To Thomas Jefferson from John Stuart, 11 April 1796," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0043.

During his initial visit to the cave Col. Stuart was accompanied by "a gentleman from New York" named Samuel Hopkins "who was here [accidentally] on business."[227] Coincidentally Jefferson knew Hopkins who had written Jefferson back in June of 1791 seeking investors for a new patented method of making pearl ash (*potassium carbonate*) a chemical composition mainly used in the production of soap and glass.[228] Upon arriving at Organ Cave, Hopkins collected a "claw about Two Inches long" along with assorted other bones, while the fossils which Col. Stuart obtained consisted of "a femur, radius, ulna, three claws and other miscellaneous foot bones."[229] Col. Stuart bundled these assorted bones together along with a letter which he sent to Jefferson, expressing the hope that these fossils "might afford you some amusement."[230] Perhaps recognizing the incomplete nature of his gift, Col. Stuart's letter explained that "the Claw I send must have been one of the Shortest for the man who owns the cave asures me he had one of the same kind that measured precisely eight Inches in Length."[231]

Lastly Col. Stuart also included his own speculations regarding what kind of animal the fossils likely originated from. In his estimation the bones clearly belonged to "a Tremendious animal of the Clawed kind," most probably one of "the Lion kind." This conclusion was based not only on the superficial resemblance of the claws to those of a big cat but also on a petroglyph which he had seen "carved upon a rock near the confluence of the Great Kenawha, which appears might been done many Centurys ago" and which he believed resembled a lion.[232]

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[227] "To Thomas Jefferson from John Stuart, 13 July 1796," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0113.
[228] "To Thomas Jefferson from Samuel Hopkins, 27 June 1791," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-20-02-0227.
[229] Allen A. Debus, *Prehistoric Monsters: The Real and Imagined Creatures of the Past That We Love to Fear* (Jefferson, NC: McFarland, 2010), 38.
[230] "To Thomas Jefferson from John Stuart, 11 April 1796," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0043.
[231] Ibid.
[232] Ibid.

Upon receiving Col. Stuart's parcel Jefferson was more than amused, he was positively ecstatic. On May 26th, Jefferson wrote back, his letter betraying no less enthusiasm for the subject of hypothetical American megafauna than that which he had previously displayed over both the *Incognitum* and moose. "This animal is certainly hitherto unknown," declared Jefferson, "and seems, from the dimensions of these bones, to have the same preeminence over the lion, which the big Buffalo or Mammoth has over the elephant."[233]

Jefferson's letter to Col. Stuart also clearly shows that the death of Buffon had done nothing to mollify his severe distaste for the former French encyclopedist's theory of American degeneracy and that he still desired to formally repudiate the notion on the international stage. Describing the ochre-colored bones which Col. Stuart had sent him as "furnish[ing] a victorious fact against the idle dreams of some European philosophers who pretend that animal nature in the new world is a degeneracy from that of the old," Jefferson asserts, "If the big buffalo [were] an Elephant, as Buffon would have us believe, it was surely an elephant improved, for it was of 4. or 5. times his size." Likewise, if "the animal now discovered [is] a lion, they must admit it is a lion improved and not degenerated."[234] In the same way that Jefferson saw the United States as an improvement over the governments of Europe, so too were the New World's monsters an improvement over the Old World's now diminutive fauna. "I consider these bones as a great acquisition," a clearly jubilant Jefferson wrote, "and shall make a point of communicating the discovery and description of them to the learned on both sides of the Atlantic."[235] Jefferson ends his May 26th correspondence to Col. Stuart by inquiring if more bones belonging to the same animal could possibly be located "as I would wish that the first information should be exact and

[233] "From Thomas Jefferson to John Stuart, 26 May 1796," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0079.
[234] Ibid.
[235] Ibid.

as complete as possible." Jefferson was also curious to know if "there [has] ever been any other remains of this species found any where?"[236]

Though Jefferson's desire for additional fossil material sounds cautious he had clearly already adopted Col. Stuart's hypothesis that the animal to which the Organ Cave bones belonged was some kind of tremendous member of the *felida* family akin to an African lion. This is made clear in a letter which Jefferson fired off the same day, May 26th, as his one to Col. Stuart. This letter was addressed to a former student of his, lawyer and judge Archibald Stuart, who had read law under Jefferson.

Jefferson informed Archibald of Col. Stuart's discovery of the bones "of a species not yet known most certainly" but likely a big cat, albeit one "as preeminent over the lion, as the big buffalo was over the elephant." Here too Jefferson celebrates the bones as being "extraordinary in themselves" and as "victorious an evidence against the pretended degeneracy of animal nature in our continent." Jefferson also writes that this discovery has excited within him "the strongest desire to push the enquiry after all other remains of the same animal which any industry can recover for us."[237] Since Archibald Stuart was "friends" with Col. Stuart he quickly made arrangements to "visit the cave where the bones of the American Lion were found" that coming July and "if possible to procure some more of his remains" for his former mentor.[238]

The same month Archibald Stuart was to travel to Organ Cave, Jefferson also shot off a letter to astronomer David Rittenhouse, then President of the American Philosophical Society,

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[236] Ibid.
[237] Thomas Jefferson, *The Papers of Thomas Jefferson*, Vol. 29: 1 March 1796 to 31 December 1797, ed. Julian P. Boyd (Princeton, NJ: Princeton UP, 1950), 113. Cf. Julian P. Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," *Proceedings of the American Philosophical Society*, Vol. 102, no. 5 (Oct. 20, 1958): 421-22.
[238] Jefferson, *The Papers of Thomas Jefferson* Vol. 29, 171. Boyd claims that Archibald Stuart was "kin" to John Stuart, a conclusion that their shared last names would suggest, however I can find no confirmation of this. In his Aug. 19th letter to Jefferson, Archibald simply refers to Col. Stuart as a friend.

likewise informing him of Col. Stuart's discovery. Again, Jefferson was quick to pronounce the bones as belonging to "an animal of the family of the lion, tyger, panther &c. but as preeminent over the lion in size as the Mammoth is over the elephant." Here Jefferson openly speculates that his hypothetical American lion may be "double or treble [the] mass" of an African lion based on preliminary measurements he has taken of the bones "now in my possession," with the caveat that "we shall be better able to judge when a fuller collection of the bones shall be made." Again Jefferson expresses his eagerness to receive additional bones noting that "I have taken measures for obtaining what are not already lost or may still be found," and that once his examination was complete "the whole of them shall be deposited with the society."[239]

Finally, observing that just "one of the claw bones in my possession, without its horny fang, measures 7. inches long" Jefferson proposes, for the first time, "to give to our animal the name of the Great-claw, or Megalonyx."[240] Rittenhouse however would never read this letter having, unbeknownst to Jefferson, passed away the week before.[241]

Meanwhile Col. John Stuart had joined up with Archibald Stuart and made his way back to Organ Cave in early July. What the two men found upon arriving was not encouraging. In the intervening months since Col. Stuart's first communicate with Jefferson many of the bones had been carted off as souvenirs by the curious, spread "through the County of Greenbriar and some into Augusta."[242] Hope of recovering them was miniscule but Col. Stuart did inform Jefferson

[239] "From Thomas Jefferson to David Rittenhouse, 3 July 1796," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0104.
[240] Ibid.
[241] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 422.
[242] Jefferson, *The Papers of Thomas Jefferson* Vol. 29, 171.

about the two-inch-long claw that "Mr. Hopkins" of New York had taken. This enabled Jefferson to write to Hopkins who then graciously sent Jefferson the fossils he had collected.[243]

Col. Stuart had particularly hoped to obtain "the Head bones or teeth" of the animal but now doubted this would be feasible as the ceiling of Cromer's cave had collapsed, burying any of the fossils that might still be there.[244] Knowing that aside from the skull Jefferson was most desirous of the animal's thigh bone, and that he recollected seeing such a bone on his first visit, Col. Stuart, along with Archibald Stuart, made inquiries among the saltpeter miners as to its possible location. Again, the news was not what they had hoped.

As Archibald Stuart reported in an Aug. 19th letter to Jefferson, the two men quickly learned that the coveted hind leg bone had been taken by "the people who Made saltpetre" and put to the utilitarian use "as a support to one corner of their Hopper."[245] Having served its pragmatic purpose, the thigh bones was then "either covered in dirt or carryed Away" though it is equally probable that it could have been destroyed altogether if the "Hopper" which Archibald Stuart mentioned was in actuality a clay vat used for saltpeter manufacturing.[246] Whatever the case may have been the desired thigh bone was no longer at hand, though Col. Stuart nevertheless still offered a reward for its possible recovery.[247] With regards to Jefferson's inquiry as to other reports of similar bones found elsewhere Col. Stuart, in a July 13th letter, regretted to

[243] Jefferson and Hopkins' correspondence on this matter does not appear to have survived but this transaction is alluded to by Jefferson in both his paper for the American Philosophical Society as well as a Feb. 14, 1801, letter to Col. Stuart.
[244] "To Thomas Jefferson from John Stuart, 13 July 1796," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0113.
[245] Jefferson, *The Papers of Thomas Jefferson* Vol. 29, 171.
[246] Ibid. and Wilson, "What is the Thing, Thomas Jefferson?", 17.
[247] Jefferson, *The Papers of Thomas Jefferson* Vol. 29, 171.

inform Jefferson that he had "never heared of any bones of this kind being found anywhere before."[248]

However, in lieu of additional physical evidence for their hypothetical American lion, Col. Stuart offered Jefferson something much more provocative; "an account" taken "from two persons in the year 1769" of what Col. Stuart believed to be a first-hand encounter with the animal to which the bones belonged and which thus "induces me to think such a Creature yet exists."[249] Interestingly Col. Stuart must have also shared this story with Archibald during the two men's time together since the other Stuart also relayed this same story to Jefferson in a subsequent letter, though his rendition is notably of a "greater length and with more graphic details" than the Colonel's, suggesting that the tale was either growing in the telling or that Col. Stuart had deliberately minimized some of the more outlandish details in his recounting of the story to Jefferson so as to achieve greater veracity.[250] Either way Jefferson eagerly received the story, incorporating it wholesale into his paper for the American Philosophical Society.

Jefferson learned of Rittenhouse's passing on August 1st, via a short missive from his nephew Dr. Benjamin S. Barton who had taken over for his uncle while the Society deliberated about who should be elected the next president.[251] In the same letter Dr. Barton also expressed interest in Jefferson's "account of the bones lately discovered" and said that the Society would gladly accept the manuscript once it was finished.

Jefferson replied to Dr. Barton in a letter dated October 10th that he was still holding out for the rumored "thigh-bone which has been seen by many and is believed to be still in the

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[248] "To Thomas Jefferson from John Stuart, 13 July 1796" *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0113.
[249] Ibid.
[250] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 422. Cf. Jefferson, *The Papers of Thomas Jefferson* Vol. 29, 171-73.
[251] Jefferson, *The Papers of Thomas Jefferson* Vol. 29, 165-66.

neighborhood where found. This with the bones I have would enable me to give the actual stature of the animal, instead of calculating it on the principle of *ex pede Herculem*"; this being an allusion to the "legend that Pythagorus once said 'from his foot [we can measure] Hercules.'"[252] Nevertheless Jefferson still assured Dr. Barton that his Megalonyx was "indeed the most tremendous of animals."[253]

On November 10th, Jefferson wrote again to Col. Stuart stating that his "anxiety to obtain a thigh bone is such that I defer communicating what we have to the Philosophical society in the hope of adding that bone to the collection. We should then be able to fix the stature of the animal without going into conjecture and calculation as we should possess a whole limb from the haunch bone to the claw inclusive."[254]

Jefferson also echoed the Colonel's belief that the animal to which the bones belonged was likely still extant, reiterating his skepticism concerning extinction in general: "I cannot however help believing that this animal as well as the Mammoth are still existing. The annihilation of any species of existence is so unexampled in any parts of the economy of nature which we see, that we have a right to conclude, as to the parts we do not see, that the probabilities against such annihilation are stronger than those for it."[255]

As with his hunt for the *Incognitum* and giant moose, there can be no doubt that Jefferson's desire for a giant lion was motivated by the late Buffon's dismissive attitude towards American fauna, as the French naturalist had disparaged the North American cougar in the pages of *Natural History* as a cowardly animal with "skin so tender as to be easily pierced by the

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[252] Wilson Jeremiah Moses, *Thomas Jefferson: A Modern Prometheus* (Cambridge: Cambridge UP, 2019), 257.
[253] Quoted in Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 422-23.
[254] "From Thomas Jefferson to John Stuart, 10 November 1796," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0162.
[255] Ibid.

simple arrows of the Indians."[256] But the extent to which Jefferson had big cats on the brain during this period is also clearly demonstrated in a January 1, 1797, letter to James Madison about Jefferson's presidential campaign. Here Jefferson ends with some rather Hobbesian musings, reflecting, as he had in *Notes on the State of Virginia*, that mankind's inescapable fate seemed be the "the principle of *bellum omnium in omnia* ['the war of all things against all things'] on a larger scale" than that of any other species so that "the lions & tygers are mere lambs compared with man as a destroyer."[257] Considering this one might ponder if in searching for the Megalonyx Jefferson was not also looking for a creature whose destructive capacity outclassed that of mankind's own?

A few days later, on January 4th, Jefferson received a letter from his friend and colleague Dr. Benjamin Rush, who had also taken an interest in the American degeneracy debate, though more tangentially than Jefferson, informing him of his nomination as president of the American Philosophical Society.[258]

Col. Stuart replied to Jefferson on January 16, 1797, informing him that unfortunately despite his offers of a monetary reward it was now clear that "the Thigh of the Animal," which had been in "the possession of the people at the Cave," had "by some unaccountable neglect" been "mislayed" and "cannot be found again." Unable to provide Jefferson with the actual fossil Col. Stuart outlined his best estimates as to its dimensions: "This bone was about one foot in Length, one inch and a half thick to the Hollow, which was one inch and a Quarter wide."[259]

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[256] Dugatkin, *Jefferson and the Giant Moose*, 81-2.
[257] "To James Madison from Thomas Jefferson, 1 January 1797," *Founders Online,* National Archives, https://founders.archives.gov/documents/Madison/01-16-02-0306. Cf. Jefferson, *Notes on the State of Virginia*, 129.
[258] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 424 and Wood, "Environmental Hazards, Eighteenth-Century Style," 19-20, 22, and 28.
[259] "To Thomas Jefferson from John Stuart, 16 January 1797," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0208.

That Jefferson ultimately accepted Col. Stuart's conjectural estimates as to the length of the missing thigh can be seen in a January 22nd letter to Dr. Rush, in which Jefferson mused that the Megalonyx was certainly "an animal of the lion kind, but of most exaggerated size. What are we to think of a creature whose claws were 8. Inches long, when those of the lion are not 1 1/2 I. Whose thigh bone was 6 1/4 I. diameter when that of the lion is not 1 1/4 I.? Were not these things within the jurisdiction of the rule and compass, and of ocular inspection, credit to them could not be obtained."[260]

Working with all the evidence he had assembled, and based primarily on the three tremendous claws, Jefferson followed Stuart's lead and deduced that the animal was a new species of enormous *felida*. This was the argument which Jefferson would present in his memoir on the Megalonyx for the American Philosophical Society which he likely began writing towards the end of January and had completed by the middle of February.[261] Jefferson next departed from Monticello on February 20th and arrived in Philadelphia on March 2nd.[262] He was here to both accept his nomination as president of the American Philosophical Society and present his findings on the Megalonyx before moving on to Washington where he would assume the role of vice-president.

On March 10th, Jefferson delivered his one and only formal scientific paper entitled "A Memoir on the Discovery of Certain Bones of a Quadruped of the Clawed Kind in the Western Parts of Virginia" which argued that the Megalonyx was a tremendous New World relative of the African lion. The first half of Jefferson's paper details the discovery and recovery of the fossil bones from the saltpeter cave site before delving into what Allen A. Debus describes as "error-

[260] "From Thomas Jefferson to Benjamin Rush, 22 January 1797," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0216.
[261] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 424.
[262] Ibid., 424-25.

prone, back-of-the-envelope type calculations" undertaken by Jefferson which put the size and weight of his hypothetical lion at "7-feet-high" and weighting in around "2,000 pounds" at its most "monstrous."[263] This is some three times the size of the largest adult male African lion on record.[264]

Jefferson's paper on the Megalonyx is usually considered a landmark work in the history of North American vertebrate paleontology.[265] An assessment which would be correct if not for its second half, which is what undoubtedly led Bernard Heuvelmans, more than two centuries later, to characterize it as "a perfect example of the cryptozoological approach."[266] Having established what kind of animal Jefferson believed the fossil bones belonged to, the vice-president of the United States proceeded to argue for his giant lion's contemporary presence in North America via several lines of rather dubious evidence.

As with the *Incognitum*, Jefferson did not believe that the presence of fossil bones meant that the Megalonyx was extinct. In fact, the word "fossil" never once appears in Jefferson's memoir, a decision which Keith Thomson interprets as "a rhetorical device" which Jefferson the lawyer knew would "bolster his position against extinction."[267] Moreover, Jefferson maintained his earlier deist conviction in the divine "economy of nature" to preserve species and argued that since much of the North American interior remained unexplored that "there is surely space and range enough for elephants and lions, if in that climate they could subsist; and for mammoths

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[263] Debus, *Prehistoric Monsters*, 39. Cf. Thomas Jefferson, "Memoir on the Megalonyx, [10 February 1797]," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0232.
[264] Simpson, "The Beginnings of Vertebrate Paleontology in North America," 157.
[265] Keith Thomson, *The Legacy of the Mastodon: The Golden Age of Fossils in America* (New Haven, CT: Yale UP, 2008), 34–40. Cf. Henry Fairfield Osborn, "Thomas Jefferson as a Paleontologist," *Science* Vol. 82 no. 2136 (Dec. 6, 1935): 537 and George Gaylord Simpson, "The Beginnings of Vertebrate Paleontology in North America," *Proceedings of the American Philosophical Society* Vol. 86 no. 1 (Sep. 25, 1942): 157.
[266] Bernard Heuvelmans, *The Natural History of Hidden Animals* (New York: Routledge, 2007), 100.
[267] Keith Thomson, "The 'Great-Claw' and the Science of Thomas Jefferson," *Proceedings of the American Philosophical Society* Vol. 155 no. 4 (Dec. 2011): 402-03.

and Megalonyxes who may subsist there. Our entire ignorance of the immense country to the West and Northwest, and of its contents, does not authorize us to say what it does not contain."[268]

Jefferson found additional proof for his giant lion's continued presence in North America in travelers' tales, stories "heretofore considered as fables" but now having "regained credit since the discovery of these bones." Relayed second hand "by the earlier adventurers to this part of America," Jefferson cited accounts going back as far as 1564 which described the "lion [as] one of the animals of our forests." Among these early pioneers was the architect of the Roanoke Colony "Thomas Harriot, a man of learning and of distinguished candor, who resided in Virginia in 1587" and who likewise reported the presence of lions in North America.[269]

In another account, from "little more than 30-years ago," Jefferson related how a "company of adventurers who went to seek an establishment in the county of Greenbriar" had described hearing "terrible roarings of some animal unknown to them" but which "went round and round their camp" its "eyes like two balls of fire" glowing in the night.[270] This later detail is especially striking as luminescent eyes remain a hallmark of many cryptid sightings.

Jefferson also cited Col. Stuart's tale of George Wilson and John Davis who "in the year 1765" had "gone to hunt on Cheat river, a branch of the Monongehela, [where they] heard one night at a distance from their camp a tremendous roaring which became louder and louder as it approached, till they thought it resembled thunder and even made the earth tremble under them. The animal prowled round their camp a considerable time, during which their dogs tho on all other occasions fierce crept to their feet, could not be excited from their camp nor even

[268] Jefferson, "Memoir on the Megalonyx, [10 February 1797]," https://founders.archives.gov/documents/Jefferson/01-29-02-0232.
[269] Ibid.
[270] Ibid.

encouraged to bark. About daylight they heard the same sound repeated from the knob of a mountain about a mile off and within a minute it was answered by a similar voice from a neighboring knob."[271]

A final story recounted by Jefferson concerns "a person of the name of Draper [who] had gone in the year 1770 to hunt on the Kanhawa." Draper "had turned his horse loose with a bell on" but had not gone far "when his attention was recalled by the rapid ringing of the bell." Suspecting "that Indians might be attempting to take off his horse" Draper "immediately returned to him" only to discover his animal dead and half devoured. Draper's dog then picks up the scent "of a wild beast" and proceeds to track it. Finally, their quarry came into view, a monster of a "terrific bulk" and in "general outlines" something "of the Cat kind." Faced with "an animal of such enormous size," Jefferson reported that Draper, "tho one of our most daring hunters, and best marksmen […] withdrew instantly and as silently as possible, checking and bringing off his dog." Perhaps anticipating some skepticism about so dramatic an encounter Jefferson assured his audience that Draper, a seasoned hunter, was "familiar with our animal miscalled the panther, with our wolves and wild beasts generally and would not have mistaken nor shrunk from them."[272]

Lastly Jefferson also mentions the petroglyph which Stuart had described as depicting an animal he thought resembled an African lion: "Moreover, it is a fact well known, and always susceptible of verification, that on a rock on the bank of the Kanhawa near its confluence with the Ohio, there are carvings of many animals of that country, and among these one which has

[271] Ibid.
[272] Ibid.

always been considered as a perfect figure of a lion. And these are so rudely done as to leave no room to suspect a foreign hand."[273]

Having outlined his evidence for the Megalonyx's continued existence, Jefferson concluded his paper with a renewed repudiation of Buffon's theory of American degeneracy: "Are we then from all this, to draw a conclusion the reverse of that of Monsr. de Buffon, that Nature has formed the larger animals of America, like it's lakes, it's rivers and mountains on a greater and prouder scale than in the other hemisphere? Not at all. We are to conclude that she has formed some things large, and some things small on both sides of the earth for reasons which she has not enabled us to penetrate, and that we ought not to shut our eyes upon one half of her facts and build systems on the other half."[274] What Jefferson was once again asking was how anyone could claim that the New World was zoologically inferior to the Old when it boasted monsters like the Megalonyx?

We do not know what Jefferson's peers in the American Philosophical Society made of their newly elected president's presentation, though the minutes for this particular meeting include the Society secretary's description of the paper as "a very interesting memoire."[275] One assumes that Jefferson spoke with confidence and conviction as he read his paper, but there is also reason to believe that doubts regarding his conclusions about the Megalonyx's identity as a monstrous lion were gnawing at him on the inside.

On Aug. 15, 1797, long after his presentation in Philadelphia and election as vice-president, Jefferson wrote to inform Col. Stuart that he had successfully nominated him for induction into the American Philosophical Society since he was "indebted" to him "for the

[273] Ibid.
[274] Ibid.
[275] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 425.

knowlege that such an animal has existed as the Great claw, or Megalonyx as we have named him" and that he hoped that Col. Stuart would continue to "enrich us with other objects of science which your part of the country may yet perhaps furnish."[276] However, Jefferson also took this opportunity to express his private doubts regarding the identity of the Megalonyx as a big cat which he and Col. Stuart had arrived at.

An insatiable bookhound, Jefferson had spent a good portion of his free time in Philadelphia scouring the local bookstores. In one such shop Jefferson's eyes fell upon the September 1796 issue of the *Monthly Magazine*, a British periodical and so despite its date new to Americans. This particular issue featured an article with an engraving depicting the fossilized skeleton of a giant animal, which possessed some rather familiar anatomical features including huge foreclaws but having been dug up in 1788 in Spanish Argentina, near the Luján River, and now mounted in the Royal Cabinet of Natural History in Madrid. This article was an excerpt and translation from a French publication, *Memoire sur un squelette fossile* (1796), which had been written by none other than George Cuvier; the same budding paleontologist who had challenged and overturned so many of Jefferson's previous cryptozoological contentions.[277]

As Jefferson went on to inform Col. Stuart, "the skelton of [this] enormous animal from Paraguay [was] of the clawed kind, but not of the Lion class at all; indeed it is classed with the Sloth, Ant-eater &c. which are not of the carnivorous kinds." Nevertheless, Jefferson noted that "there are several circumstances which lead to a supposition that our megalonyx may have been the same animal with this."[278]

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[276] "From Thomas Jefferson to John Stuart, 15 August 1797," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0396.
[277] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 429.
[278] "From Thomas Jefferson to John Stuart, 15 August 1797," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0396.

Indeed, the Spanish naturalists who had first examined these South American fossils, which had been recovered in Uruguay – not Paraguay as both Cuvier and Jefferson mistakenly claimed – had concluded, like Jefferson, that they were the remains of "a feline the size of a pachyderm."[279] It was Cuvier, once again equipped with his pioneering study of the "correlation of parts," that straightened matters out by demonstrating that the fossils rather belonged to a giant species of sloth which he dubbed *Megatherium americanum*; the "great beast from America." A feat of comparative anatomy all the more impressive for the fact that Cuvier never laid eyes on the fossils themselves but made all his deductions from drawings he had been sent.[280]

Stuart wrote back to Jefferson on Sept. 6th thanking him for the honor and restating his own assurance that the bones must be those of a great cat since he had seen the "figure of a Lion carved on a rock on the Kenawha."[281] Jefferson, for his part, also held out hope that the Megalonyx might yet prove to be a relative of the lion and cited First Nations "traditions which confirm his classification with the lion."[282] What traditions Jefferson was alluding to specifically is unclear but Marcia Wilson observes that an article by Moravian missionary John Heckewelder, published in the same volume of the American Philosophical Society's journal as Jefferson's own memoir, concerns accounts by the Mohicans of a monster known as "The Big Naked Bear"

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[279] Juan Pimentel, *The Rhinoceros and the Megatherium: An Essay in Natural History* (Cambridge, MA: Harvard UP, 2017), 129-30 and 180.
[280] Stephen M. Rowland, "Thomas Jefferson, Extinction, and the Evolving View of Earth History in the Late Eighteenth and Early Nineteenth Centuries" in *The Revolution in Geology from the Renaissance to the Enlightenment*, ed. Gary D. Rosenberg (Boulder, CO: The Geological Society of America, 2009), 235.
[281] "To Thomas Jefferson from John Stuart, 6 September 1797," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0415.
[282] "From Thomas Jefferson to John Stuart, 15 August 1797," *Founders Online*, National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0396.

which superficially resembles Jefferson's Megalonyx.[283] Wilson suggests that this article, which Jefferson in his capacity as Society president would have reviewed, was a deliberate attempt by Heckewelder to appeal to Jefferson's known desire "for vicious monster lore."[284]

But the revelation of Cuvier's article in the *Monthly Magazine* shook Jefferson more than he was even willing to reveal to Col. Stuart in private correspondence. Today Jefferson's original handwritten manuscript for his presentation to the American Philosophical Society is held by the Library of Congress. Consulting it shows that Jefferson made extensive last-minute alterations which included striking out a sentence from the opening paragraph which declared the Organ cave fossils to be those of an animal belonging to the "family of the lion, tyger, panther &c."[285] While Jefferson still argued that the bones belonged to an unknown but extant species of enormous North American *felida*, he nevertheless saw the pertinence in emolliating the resoluteness with which he was prepared to make such a case.

It has sometimes been claimed that Jefferson's chance encounter with Cuvier's article caused him to instantly abandon his lion hypothesis, but a pair of letters, the first of which is postmarked two months after Jefferson's trip to Philadelphia, shows this was not the case.[286] Both letters are addressed to the Italian Prince Louis of Parma who was looking for a pen pal with knowledge of North American natural history. In the first letter, dated May 23, 1797, Jefferson ends by mentioning his forthcoming "account of a recent discovery of the remains of a

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[283] John Heckewelder, "A Letter from Mr. John Heckewelder to Benjamin Smith Barton, M. D. Containing an Account of an Animal Called the Big Naked Bear," *Transactions of the American Philosophical Society* Vol. 4 (1799): 260.
[284] Wilson, "What is the Thing, Thomas Jefferson?", 19.
[285] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 427-28. Cf. Note 2 in Jefferson, "Memoir on the Megalonyx, [10 February 1797]," https://founders.archives.gov/documents/Jefferson/01-29-02-0232.
[286] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 428.

carnivorous animal 4 or 5 times as large as the lion, found in the Western parts of Virginia."[287] Here it is notable that not only was Jefferson still confident enough in his claim that the Megalonyx was a giant lion to brag about it to a foreign dignitary, but his latest pet monster was also still growing in size.

In a subsequent letter to Louis of Parma, who by now had married Princess Maria Luisa at Madrid thus making him an Infante of Spain, Jefferson again invokes "the bones discovered about 3 years ago in the upper country of Virginia of an animal, which I denominated the Megalonyx, from the extraordinary size of the claws, which were 7½ Inches long," which while "not sufficient to decide it's class […] led to the supposition that it was of the family of the lion, but many times larger." However, this time Jefferson also mentions "the skeleton of an animal found near the river Plata, which your naturalists have called the Megatherium" and which "[perhaps] may be the same animal with our Megalonyx."[288]

This second letter is dated February 25, 1799, the same year that Jefferson's memoir would finally see print, indicating that even at this extremely late date Jefferson was still holding on to his conviction that the bones he had examined were those of a big cat. This same letter also betrays the degree to which allegations of American degeneracy still irked the Vice President of the United States with Jefferson declaring that "the enormous mass of two such animals as the Megalonyx and Mammoth, with a thousand other facts, will surely suffice to dissipate the dreams of Buffon, Robertson & De Paw who have imagined that the soil & climate of America did not admit of animals on so large a scale as the other parts of the earth."[289]

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[287] "From Thomas Jefferson to Louis of Parma, 23 May 1797," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-29-02-0307.
[288] "From Thomas Jefferson to Louis of Parma, 25 February 1799," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-31-02-0043.
[289] Ibid.

The controversy surrounding the taxonomic identity of the Megalonyx prompted physician and American Philosophical Society Vice-President Caspar Wistar to re-examine the bones which Jefferson had since donated to the Society in 1797 at the meeting on March 10th and which the Society had subsequently turned over to museum proprietor Charles Willson Peale with the request that they be put in "the best order, for the Society's use."[290] In a 1799 paper, Wistar concluded that the bones of the Megalonyx were indeed those of a huge ground sloth similar, though different, from the South American megatherium. In deference to Jefferson however Wistar dubbed this new species *Megalonyx jeffersonii* or "Jefferson's giant claw."

Wistar's paper was published alongside Jefferson's own in the 1799 issue of the *Transactions of the American Philosophical Society*. Jefferson's memoir appeared more or less the same as it had been when he presented it in 1797 but now with a brief note appended to the end regarding the resemblance between the North American megalonyx and the South American megatherium: "The Megatherium is not of the cat form, as are the Lion, tyger and panther, but is said to have striking relations in all parts of its body with the Sloth (*Bradypus*) tatoo (*Dasypus*) pangolin (*Manis*) and the anteaters (*Myrmecophaga* and *Orycteropus*). According to analogy then it probably was not carnivorous, had not the phosphoric eye, nor leonine roar."[291]

Jefferson, of course, cannot be blamed for not having consulted scholarship which was not yet available to him. However, in the late 1950s Princeton University historian Julian P. Boyd, who served as editor for The Papers of Thomas Jefferson project from 1944 on, argued that even in the absence of Cuvier's article Jefferson should have known that the megalonyx was not a lion on account of two sources which he did have access to.

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[290] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 426-27.
[291] Jefferson, "Memoir on the Megalonyx, [10 February 1797]," https://founders.archives.gov/documents/Jefferson/01-29-02-0232.

The first of these was a January 26, 1789, letter which Jefferson had received from diplomat William Carmichael who was also a member of the American Philosophical Society having been inducted the same year as Jefferson. Carmichael, who had previously collaborated with Benjamin Franklin on his Paris mission during the Revolutionary War, was currently representing America's interests in Spain where he had been stationed since 1782. This meant that he was perfectly positioned to see the newly mounted skeleton of the megatherium at the Royal Cabinet of Natural History in Madrid; a sight which he instantly surmised would be of considerable interest to Jefferson. Carmichael's subsequent January letter however was not principally about the megatherium but rather King Charles IV's policy regarding the nascent United States. Nevertheless, Carmichael still took time to mention the recent fossil discovery as well as enclose a rough sketch of the skeleton.

> I also inclose…a discription of the Skeleton of an Animal discovered lately in Spanish America. I supposed these to be objects of Curiosity to you, the Latter is merely for yourself, for the Academy of Natural history here, will soon publish an account of this Animal and the person who furnishes me with the inclosed Sketch and notes desires that his Observations should not be made public.[292]

As Juan Pimentel observes, Carmichael's instructions to keep the sketch and notes confidential as the unnamed party which had furnished him with this material did not wish for this information to yet be made public, imbues the whole affair with an air of international espionage.[293] It also makes it difficult to fathom how Jefferson could have forgotten such an exciting letter. However, it should be remembered that at this time Jefferson was still in Paris and hurriedly making preparations for a quick departure as the French Revolution, and subsequent Reign of Terror, loomed ever closer.[294] In fact when Jefferson received Carmichael's letter he

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[292] Rowland, "Thomas Jefferson, Extinction, and the Evolving View of Earth History in the Late Eighteenth and Early Nineteenth Centuries," 234.
[293] Juan Pimentel, *The Rhinoceros and the Megatherium*, 187.
[294] C. Edward Quinn, "Thomas Jefferson and the Fossil Record," *Bios* Vol. 47 no. 4 (Dec. 1976): 162.

was actually camped out in the lobby of the Hotel de Langeac in Paris, surrounded by boxes of his furniture, books, papers, and luggage eagerly awaiting Congress to give him the okay to clear out of France while he still could.[295] Considering all this it is easy to understand why Jefferson's mind might have been elsewhere.

The other text which Boyd feels confident that Jefferson should have known about was Spanish engineer José Garriga's 1796 publication, *Description del esquelleto de un quadrupedo muy corpulento y raro que se conserva en el Real Gabinete de Historia Natural de Madrid*, which comprised the first full technical description of the megatherium. Boyd writes that "within a few months of its appearance in Madrid, two copies of Garriga's work were owned by members of the American Philosophical Society. One of these copies belonged to Benjamin S. Barton and the other to John Vaughan, both of them friends of Jefferson."[296] However neither Jefferson's memoir nor Wistar's paper describing the bones of the megalonyx contain so much as a single reference to Garriga's work.

Boyd cannot account for this, but historian Wilson Jeremiah Moses offers a rather simple solution. While Jefferson could both read and speak fluent English, French, Italian, and Latin he could only read Spanish, and then on a rather rudimentary level. While Jefferson may have certainly been interested in Garriga's writeup on the megatherium it is doubtful that he could have read it.[297]

After being handed over to Peale, Jefferson's megalonyx fossils were transferred to the Academy of Natural Sciences of Philadelphia in 1849 where they reside to this day, though not

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[295] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 433.
[296] Ibid., 432.
[297] Wilson Jeremiah Moses, *Thomas Jefferson: A Modern Prometheus* (Cambridge, MA: Cambridge UP, 2019), 259. Moses repeatedly misspells Garriga's name as "Carriga." He also seems to have confused Carmichael's letter and Garriga book to some extent.

on public display. In 1802, Peale had casts of the megalonyx bones made and sent to Cuvier in Paris.[298] The young French paleontologist subsequently wrote about the animal in his five-volume treatise *Recherches sur les ossemens fossils* (1821–1823) dually praising Jefferson for the discovery.

> Mr. Jefferson. . . whose virtues and talents brought happiness to the people he governed and the admiration of all the friends of humanity, and who joins to these superior qualities an enlightened love and an extensive knowledge of the sciences to which he provides notable growth, is the first to make known this interesting species of fossil animal.[299]

The first substantial skeletal remains of *Megalonyx jeffersonii*, constituting roughly thirty-percent of the whole animal, would not be found until December 1890 when they were unearthed on a farm in Holmes County, Ohio and donated to The Ohio State University. The skeleton was mounted for display in 1896, and still stand in the Orton Geological Museum to this day where it is known informally as "Jeff," in honor of Thomas Jefferson.[300]

In the decade following Jefferson's death the discovery of the fossil bones of a true Pleistocene era North American lion (*Panthera atrox*) were unearthed by William Henry Huntington, Esq., who announced his discovery to the American Philosophical Society on April 1, 1836.[301] Some have referred to this as "Jefferson's redemption."[302] But this seems highly inappropriate. As we have seen Jefferson was arguing for an extant North American lion, not an

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[298] Rowland, "Thomas Jefferson, Extinction, and the Evolving View of Earth History in the Late Eighteenth and Early Nineteenth Centuries," 237.
[299] Boyd, "The Megalonyx, the Megatherium, and Thomas Jefferson's Lapse of Memory," 434.
[300] N.A. "The *Megalonyx* Project: Science Education Through Restudy of a Landmark Scientific Discovery," *The Ohio State University* (N.D.): https://ortongeologicalmuseum.osu.edu/collections-research/megalonyx-project#:~:text=The%20Megalonyx%20Project%3A%20Science%20Education%20Through%20Restudy%20of%20a%20Landmark%20Scientific%20Discovery&text=On%20March%2010%2C%201797%2C%20Thomas,to%20the%20American%20Philosophical%20Society.
[301] Joseph Leidy, "Description of an Extinct Species of American Lion: *Felis atrox*," *Transactions of the American Philosophical Society* Vol. 10 (1853): 319–22.
[302] B.J. Hollars, "Thomas Jefferson's Monster," *Terrain.org* (Jan. 6, 2019): https://www.terrain.org/2019/nonfiction/thomas-jeffersons-monster/

extinct one. Moreover, even an adult male *Panthera atrox*, which is estimated to have weighed in at 518 pounds, came nowhere close to Jefferson's hoped for 2,000-pound hypothetical monster.

But most important of all, Jefferson arrived at his belief in a giant North American cat via the misidentification of the bones of a giant ground sloth. All of which was only possible, as Keith Thomson writes, on account of the fact that "Jefferson had worked *a priori*. He had started with his lion idea, then tried to prove it, and when it was disproved, he still did not completely relinquish the theory."[303] This tendency to "to put the cart before the horse," observers Michel Meurger, "when dealing with modern accounts of mysterious animals" is the methodological default among cryptozoologists who, "blinded by their neo-euhemerism," assume "from the start that the question of origins is already settled: creatures in the shadows belong to nature and therefore to the zoological or anthropological fields."[304]

In fact, the only way that the subsequent discovery of *Panthera atrox* can in anyway be related to Jefferson's one and only scientific paper is if one adopts the view of certain cryptozoologists who maintain that the North American Pleistocene lion still lives.[305] In which case one could conceivably consider Jefferson's accumulation of early settler folklore about monstrous cat-like creatures in and around the woods of West Virginia as evidence.

Lastly as with the *Incognitum* and giant moose it is worth emphasizing that none of this occurred during a period when Jefferson was at all idle. Though it failed to make an impact on him at the time, Jefferson first learned about the megatherium from William Carmichael in January of 1789 while still serving as ambassador to France and in a letter principally given over to international affairs and relations. Once back in the United States, Jefferson received the

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[303] Thomson, "The 'Great-Claw' and the Science of Thomas Jefferson," 389-99.
[304] Michel Meurger, "The Smoking Apeman: True Report or Legend as Life?," *Fortean Studies* Vol. 5 (1998), 172.
[305] Loren Coleman, *Mysterious America: The Ultimate Guide to the Nation's Weirdest Wonders, Strangest Spots, and Creepiest Creatures* (New York: Paraview Pocket Books, 2007), Chapter 13.

megalonyx bones from Col. John Stuart in March of 1796; the same period in which he began campaigning for president. Jefferson was elected vice president in March of 1797, the same month he delivered his paper to the American Philosophical Society. After becoming vice-president Jefferson continued devoting time and energy to the issue of the megalonyx's identity and used his study of the monster as a means of talking up foreign dignitaries like Louis of Parma. Jefferson would hold the vice-presidency until March of 1801 and so if we consider the publication of Jefferson's memoir in 1799 the climax of the megalonyx drama this means that it occupied nearly the entirety of Jefferson's vice-presidential career.

But of course, this wasn't the end. Jefferson's political ambitions still included another run at the presidency and though he was ultimately forced to acknowledge that the megalonyx was a giant sloth rather than a tremendous lion he still held out hope that the animal might be alive somewhere in the vast expanse of unexplored North American territory. Which is why future President Thomas Jefferson would be sending explorers Captain Meriwether Lewis and Second Lieutenant William Clark into the recesses of New World to hopefully finally locate his long sought after monsters.

2.4: The Corps of Discovery and the Great Sea-Serpent

Sometime in late February of 1806, President Thomas Jefferson received a package care of a Dr. William Reid of Charleston, South Carolina. The parcel contained two triangular fossil teeth roughly six inches in length with serrations along the distal and mesial crown edges. The crowns of both teeth were a milk chocolate brown color, with the root shading almost to black, though on one of the two teeth the root was almost entirely missing, having broken away. Accompanying the teeth was a letter from Dr. Reid addressed to Jefferson.

> CHARLESTON, S.C., FEBRUARY 11th, 1806
>
> Sir, - Observing you attentive to Natural Philosophy as well as to other branches of science, I take occasion to present you with a fossil, which you may consider a curiosity, and not unworthy of your contemplation. It was found on Ricehope Estate on Cooper river, in forming a canal twenty feet under the surface of the earth, and ten feet above the level of the river swamp. It lay with several others of similar form, in a stratum of earth resembling decayed sea shells, two hundred feet distant from the swamp. I likewise send you a broken one, lest-your Excellency should choose to direct a chemical analysis on it. From my experiments, they prove dentous. The curious here have concluded these fossils to be the teeth of some monster unknown at this day.
>
> I remain with all due respect and the highest consideration, your Excellency's very humble servant,
>
> WILLIAM REID[306]

What thoughts raced through Jefferson's mind as he contemplated these two monstrous and formidable looking teeth? Certainly, he would have recognized them as resembling the teeth of a shark, some of the oldest and best known of all fossils, only considerably larger.[307] But given Jefferson's proclivity for speculative zoology what kind of marine monster might he have conjured forth as possessing such teeth?[308] Did he connect them with the Abenaki traditions of

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[306] Quoted in Robert W. Gibbes, "Monograph of the Fossil Squalidae of the United States," *Journal of the Academy of Natural Sciences of Philadelphia* Vol. 1 no. 2 (1848): 144.
[307] Switek, *Written in Stone*, 24-7.
[308] The fact that Dr. Reid mentioned the fossils being extracted from "a stratum of earth resembling decayed sea shells" meant that Jefferson would have recognized the aquatic nature of the fossils. In *Notes on the State of Virginia*

the terrible *Meskag-kwedemos* that he could have heard of while investigating the mystery of the *Incognitum*? Or perhaps he more readily associated them with the many fragmentary fossils of monstrous "fish" which explorers Captain Meriwether Lewis and Second Lieutenant William Clark were sending back reports of while still on their journey of discovery.

Two years after becoming president of the United States in 1801, Jefferson succeeded in doubling the size of the country via the Louisiana Purchase, an acquisition that encompassed 530,000,000 acres of North American territory. Jefferson's motivations for acquiring this territory were manifold. Jefferson had been attempting to mount an expedition up the Missouri River to find a route to the Pacific Ocean and explore the interior of the North American continent since 1776 when he had discussed the matter with his previous fossil emissary Gen. George Rogers Clark. The closest he'd previously gotten was in 1793 when he had proposed such an expedition to the American Philosophical Society. Thanks to a generous matching donation on the part of George Washington, the Society was able to put up $1,000 for the proposed expedition. Several men volunteered to lead the voyage including Meriwether Lewis. But being only eighteen years old at the time Jefferson felt Lewis was too inexperienced and passed over him, instead choosing French botanist André Michaux. Jefferson then composed a list of instructions for Michaux which included not only locating the most expedient route to the Pacific, but also procuring any information he could about "the Mammoth" as this animal was of

(1785/88), Jefferson discusses the controversial matter of seashells found on mountaintops. The conventional explanation was that such an anomaly was confirmation of the historical reality of the Noachian deluge, recalling Ezra Stiles's explanation for fossil mastodon bones as belonging to biblical giants. As with that issue, Jefferson rejected this literalist interpretation of scripture and instead throws his weight behind the euhemerist interpretation of the Noachian deluge as a localized event confined to the Mediterranean. But about seashells on mountaintops Jefferson also rejected the possibility of geological upheaval – the current scientific consensus – as an "equally unsatisfactory" answer on the basis that no one had ever witnessed such an event. On this issue Jefferson had no readily available alternative answer, instead writing "we must be contented to acknowledge, that this great phenomenon is as yet unsolved. Ignorance is preferable to error; and he is less remote from the truth who believes nothing, than he who believes what is wrong." Jefferson, *Notes on the State of Virginia*, 31-33.

special interest.[309] This is the earliest indication that Jefferson's ambitions for westward expansion were tied directly to his continued cryptozoological interests in hypothetical American megafauna. However, this proposed expedition folded when Jefferson learned that Michaux was a spy and had him repatriated.[310]

Meanwhile in France, revolution had given way to anarchy which had allowed for the rise of Napoleon Bonaparte in 1799. Napoleon planned to revive the French Empire and the future Louisiana Territory was central to his ambitions. France had claimed this portion of North America since 1682 but had ceded it to Spain in 1762 as part of the clandestine Treaty of Fontainebleau. However, in 1800 France regained this land from Spain who traded it in exchange for Tuscany. Napoleon's plan was to transform this swath North America into a massive granary to feed France's new empire. In late 1802, Napoleon dispatched around 20,000 soldiers to reclaim the valuable French sugar colony of St. Domingue (today the sovereign state of Haiti) with instructions to first quell the on-going 1791 Haitian Revolution and then prepare to move along to New Orleans.

Watching all this unfold with mounting apprehension was President Jefferson who did not favor the idea of so much American land residing in Napoleon's hands nor the prospect that the United States would likely be losing access to New Orleans which constituted a major trading port. Jefferson decided that the most pragmatic solution to this problem would be to see if the United States could purchase New Orleans from France. Congress agreed to allocate up to $10 million for the purchase and in January of 1803, Jefferson appointed James Monroe envoy extraordinary and minister plenipotentiary and sent him to join Ambassador Robert Livingston in

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[309] "American Philosophical Society's Instructions to André Michaux, [ca. 30 April 1793]," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-25-02-0569.
[310] Stephen E. Ambrose, *Undaunted Courage: Meriweather Lewis, Thomas Jefferson, and the Opening of the American West* (New York: Simon & Schuster, 1997), 70-1.

Paris to assist in negotiations for New Orleans which were already underway. Should this not prove feasible Monroe was to attempt to create a military alliance with England in the event that war with France should become an inescapable inevitability.

The same month that Jefferson dispatched Monroe to Paris he also asked Congress for $2,500 to fund an expedition that would cross the future Louisiana Territory, regardless of who controlled it, and proceed on to the Pacific.[311] This current proposed expedition had begun taking shape in the late summer of 1802. This time Jefferson chose Lewis, who was currently serving as the president's personal secretary, to organize and lead what was to become the Corps of Discovery.[312]

While Jefferson's renewed motivations for such an expedition were undoubtedly a reaction to Napoleon's aspirations, they were also due to Jefferson's continued conviction that his much sought-after hypothetical American megafauna resided somewhere in the unexplored recesses of the continent and that such an expedition was key to finding them. Jefferson makes such motivations clear in a late February 1803 letter to Parisian naturalist Bernard-Germain-Étienne de Lacépède, in which the president wrote that "it is not improbable that this voyage of discovery will procure us further information of the Mammoth and of the Megatherium."[313] Jefferson's reference to not only "the Mammoth" but also "the Megatherium" shows that while the president had come to recognize that his giant lion was actually a huge sloth, he was still holding out hope that both were extant, albeit elusive, species.

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[311] Jefferson obtained British, French, and Spanish passports for Lewis in the event that the expedition should cross into any of these country's territory.
[312] Ambrose, *Undaunted Courage*, 76.
[313] "From Thomas Jefferson to Lacépède, 24 February 1803," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/01-39-02-0486. Cf. Semonin, *American Monster*, 344 and Mark V. Barrow Jr., *Nature's Ghosts* (Chicago: University of Chicago Press, 2009), 19.

Across the Atlantic, Monroe rendezvoused with Livingston in Paris on April 12th, where he heard the most unexpected news. The prior day Livingston had met with Foreign Minister Charles Maurice de Talleyrand who had informed him that Napoleon was now looking to sell the entirety of what was to become the Louisiana Territory to the United States for $15 million.

What had changed? For one France's attempt to reclaim St. Domingue had proven an abysmal failure with as many soldiers falling victim to yellow fever as had been killed in combat with the formerly enslaved Haitians, who had no interest in returning to a life of forced servitude. These events were likely seen by Napoleon as confirmation of what his treasury minister François Barbé-Marbois – the very man whose Buffon-influenced doubts about the value of the New World had inspired Jefferson's *Notes on the State of Virginia* – had been telling him about North America. Namely that the country was a miasma choked mire, a land of disease and dissidence.

In addition, tensions with Britian were escalating and war on the horizon. If France was going to war with Britain, then Napoleon needed as many abled bodied soldiers and as much cash back at home as quickly as possible. It simply made more sense in the short term to sale the Louisiana Territory to the United States then to expend resources France didn't have on trying to retain and develop it. Fearing that Napoleon may retract the offer, Monroe and Livingston did not wait for the president, much less congress, to approve this new deal but instead decided that it was better to beg for forgiveness than ask for permission and chose to act unilaterally. Accordingly, on May 2, 1803, Monroe and Livingston signed the bill of sales (antedated to April 30th) thereby purchasing the Louisiana Territory from France on behalf of the United States.

When exactly news of the sale reached Jefferson is not clear. Though a Boston newspaper was the first to break the story of the purchase on June 28th, Jefferson must have

known about it well before then, on account of a June 19th letter written by Lewis to an old army buddy of his named William Clark, the younger brother of Jefferson's old friend Gen. George Rogers Clark. Lewis was asking if Clark would join him as co-commander of the Corps of Discovery, intimating that "the whole of that immense country watered by the Mississippi and it's tributary streams, Missourie inclusive, will be the property of the U. States in less than 12 months from this date." Lewis also repeatedly stressed to Clark "the necessity of keeping this matter a perfect secret."[314] If Lewis knew about the purchase, then so to must have Jefferson. Chances are that Jefferson was elated by the news of the purchase but also knew he would now have to justify it to congress since it exceeded both the amount of land he had been authorized to buy and the amount of money he'd been authorized to spend. However, the purchase did not have to be ratified until the end of October, which gave Jefferson and his cabinet time to strategize, especially if they could keep the transaction secret.

On June 20th, Jefferson wrote a long list of directives for Lewis concerning the expedition. Again, as with the ill-fated 1793 expedition, Jefferson gave explicit instructions to make note of "the animals of the country generally, & especially those not known in the U.S. the remains or accounts of any which may be deemed rare or extinct."[315] This time Jefferson did not mention the mastodon or megalonyx explicitly, but likely didn't have to. As Jefferson's former secretary Lewis would have known exactly what his boss was hoping the Corps of Discovery would find. And if there were any doubts these were likely ameliorated by the combination of Lewis's tutoring by Caspar Wistar in April as well as his September 28th stop off in Cincinnati,

[314] Julie M. Fenster, *Jefferson's America: The President, the Purchase, and the Explorers Who Transformed a Nation*, (New York: Broadway Books, 2016), 103.
[315] Thomson, *The Legacy of the Mastodon*, 59–60.

Ohio during which time he traveled down to Big Bone Lick in Kentucky to view an actual mastodon skeleton.

On October 20th, the United States Senate ratified the Louisiana Purchase. The way was now clear and on October 26th Lewis and Clark left port in Clarksville, Indiana and headed into the unknown. For hundreds of years cartographers had been adorning maps with illustrations of monsters indicating places where explorers should not go. In defiance of conventional wisdom Jefferson told Lewis and Clark to do just the opposite. They were to head towards the monsters.

The first of the several sea monster fossils which Lewis and Clark came upon was discovered early in their journey up the Missouri River. Though the exact location is not known it was somewhere near Soldiers River which today is located in the northwest corner of Harrison County, Iowa, where a more than 80-million-year-old geological formation known as the Niobrara Chalk extends down from South Dakota. It was here that Corps of Discovery member Sgt. Patrick Gass, while out hunting, came across what Meriweather Lewis described in an August 6, 1804, note as the "Petrifed Jaw bone of a fish or some other anamal found in a cavern a few miles distance from the Missouri S[tarboard] side of the River."[316] The dark chocolate colored maxillary bone, still equipped with teeth, measured roughly four and thirty-three inches and belonged to an extinct species of eel-like predatory fish (*Saurocephalus lanciformis*) which grew to a length of more than eight feet in length; large enough that the doctor who made the first detailed study of the fossil initially mistook it for the jaw of one of the great marine reptiles that lived alongside the dinosaurs.[317]

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[316] Earle E. Spamer and Richard M. McCourt, "The Fossil Specimens: The paleontological discoveries," *Discover Lewis & Clark* (n.d.): https://lewis-clark.org/sciences/geology/paleontology/fossil-specimens/

[317] Michael J. Everhart, *Oceans of Kansas: A Natural History of the Western Interior Sea* (Bloomington, IN: Indiana University Press, 2005), 14-15 and 75.

Lewis's description of the location where Gass found this fossil as a "cavern" leads Adrienne Mayor to speculate wildly about it having possibly been a fetish employed by some Indigenous shaman in a vision quest, but as Earle E. Spamer and Richard M. McCourt comment, it is far more likely that Gass's cavern was merely an undercut in the stream bank as the area in which it was found is not known to possess any true caverns.[318]

The expedition's second major fossil discovery came the following month on September 10, 1804, in what is today the northwest corner of Gregory County, south-central South Dakota. Clark, alongside a company of at least five other men, was sailing along the Missouri River several miles below the confluence with the White River, when at approximately noon they came upon "black sulfur bluffs on the south side." It was here, according to the account of Sgt. Gass, that the party observed "the skeleton or back bone of a fish, 45 feet long, and petrified" eroding out of the top ridge of a high cliff.[319]

The sight was so remarkable that four of the men present made note of it in their journals. According to Clark the fossils were "on the top of a ridge" and consisted of "a back bone with the most of the entire [length] laying Connected for 45 feet. [T]hose bones are petrified, some teeth & ribs also connected." Expedition member Joseph Whitehouse wrote that they "saw lying on the banks on the South side of the River, the Bones of a monstrous large Fish, the back bone of which measured forty-five feet long," while John Ordway kept things simple by merely noting the discovery of "the rack of Bones of a verry large fish."[320]

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[318] Mayor, *Fossil Legends of the First Americans*, 187-89 and Spamer and McCourt, "The Fossil Specimens: The paleontological discoveries," https://lewis-clark.org/sciences/geology/paleontology/fossil-specimens/
[319] Patrick Gass, *Journal of the Lewis and Clark Expedition,* ed. James Kendall Hosmer (Chicago: A.C. McClurg & Company, 1904), 30.
[320] Everhart, *Oceans of Kansas*, 14-15 and 172-73.

Because Clark and his men were in the territory of the Yankton Sioux, one is left to wonder if Pierre Dorion, the expedition's French Sioux interpreter, who had previously lived among the Yankton, was ever consulted as to the putative identity of these bones?[321] Like the Abenaki with their legends of the water monster *Meskag-kwedemos* it is likely that the Yankton would have identified such bones with their own mythical water monster the *Unktehi* or *Uncegila*.[322] Tradition described this particular monster as a "vast female whose great serpentine body is covered with flint scales; her heart is a rock crystal, and her eyes shot flames."[323] Normally the *Uncegila* dwelt in the deep ocean but would occasionally come inland via various waterways; her very presence enough to turn freshwater brackish. Supposedly she had been slain long ago by two young men who dispatched her using enchanted arrows. Once dead these heroes cut out the *Uncegila*'s crystal heart which bestowed upon them the gift of prophecy. Like the other First Nations myths we have encountered thus far the intent of this story is clearly etiological rather than paleontological or cryptozoological. Tradition has it that "the sun was so grateful for [*Uncegila*'s] death that it dried up everything in sight and turned the land completely dry."[324]

Evidentially Clark decided not to leave these fossils *in situ* but rather to have his men remove them from the stony matrix and prepare them for transport "to the City of Washington" as detailed in Sgt. Gass's account. However, what exactly became of these fossils is unknown as they were apparently lost in transit. Based on similar fossils found in the same region, the consensus among contemporary paleontologists is that those excavated by Clark and his men

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[321] Mayor, *Fossil Legends of the First Americans*, 225-26.
[322] Ibid., 237.
[323] Carol Rose, *Giants, Monsters, and Dragons: An Encyclopedia of Folklore, Legend, and Myth* (New York: W.W. Norton, 2000), 374 and 377.
[324] Ibid.

likely belonged to a true sea-monster; a large mosasaur, a species of Mesozoic marine monitor lizard first uncovered in 1780 by quarry workers near the Dutch city of Maastricht.[325] Interestingly enough, when French revolutionary forces occupied Maastricht in 1794, the Maastricht mosasaurs fossils were seized and transported to Paris, another indication that Jefferson was not alone in his obsession with fossils as symbols of revolution.[326]

The third and final set of purported sea-monster fossils uncovered by the Corps of Discovery happened on the return trip, in 1806, near Pompey's Pillar in Montana. Clark noted in his journal that while his men were retrieving a pair of bighorn sheep they had just shot, he was busy trying to extract "the rib of a fish […] 3 feet in length" from a cliff "about 20 feet above" the Yellowstone River. Ultimately Clark only managed to remove a portion of the rib and again what exactly became of this fossil is unknown. This time, given the location of the site that Clark was working, it is unlikely that the fossil belonged to either a prehistoric fish or marine reptile, but rather a genuine dinosaur, albeit thirty-five years before anyone would know what a dinosaur was.[327]

Lewis and Clark returned from their expedition on September 23, 1806, having discovered 122 new animal species including such now iconic American animals as the grizzly bear, coyote, prairie dog, and bighorn sheep. However, they had also failed to locate any living mastodons or megalonyxes, while even the few fossils they had managed to collect, and not lose, during their transcontinental voyage were decidedly meager when compared to the wealth of other materials – flora, fauna, geological, and ethnographical – that they had returned with.[328]

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[325] Everhart, *Oceans of Kansas*, 14-15 and 172-73.
[326] Adrian J. Desmond, *Hot-Blooded Dinosaurs: A Revolution in Paleontology* (New York: Grand Central Pub, 1977), 7-13.
[327] Spamer and McCourt, "The Fossil Specimens: The paleontological discoveries," https://lewis-clark.org/sciences/geology/paleontology/fossil-specimens/. Cf. Mayor, *Fossil Legends of the First Americans*, 226.
[328] Spamer and McCourt, "The Fossil Specimens: The paleontological discoveries," https://lewis-clark.org/sciences/geology/paleontology/fossil-specimens/

Much later in the 19th century, fossils like those of the mosasaurs which Clark and his men had observed would be viewed by leading naturalists of the day as lending credibility to reports of the most fantastic of all marine creatures; the Great Sea-Serpent.[329] Considering this, one cannot rule out the possibility that Jefferson may as well have made this association when examining the teeth sent to him by Dr. Reid.

The cryptozoological enigma which is the sea-serpent began in the 16th century when Swedish writer and Catholic ecclesiastic Olaus Magnus – previously discussed as the perpetuator of the belief that moose hooves possess medicinal properties – published his comprehensive 1555 treatises *Historia de gentibus septentrionalibus* ("History of the Northern Peoples") in which he gives the first detailed account of this fabulous serpentine creature.[330] However the mystery would take on renewed relevance in the mid-18th century when Erich Pontoppidan, Danish-Norwegian Bishop of Bergen in the Lutheran Church, published his *Natural History of Norway* (1753) which reported that sea-serpents most certainly existed as there is "full and sufficient evidence from creditable and experienced fishermen, and sailors… who can testify that they have annually seen them."[331]

Though primarily associated with Scandinavian waters, reports, accompanied by graphic illustrations, that the shores of the New World were also teaming with man-eating sea-serpents appeared as early as the 17th century in the work of German theologian Johann Ludwig Gottfried, author of *New World and American Histories: Comprehensive and Perfect Descriptions of all West Indian Landscapes, Islands, Kingdoms and Provinces* (1631).[332]

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[329] France, *Disentangled*, 20-29 & 34-36. Cf. Lester, *The Great Sea Serpent Controversy*.
[330] Michel Meurger, "In Jormungandra's Coils: A Cultural Archeology of the Norse Sea-Serpent," *Fortean Times* no. 51 (Winter 1988/1989): 63-68.
[331] Joseph Nigg, "Olaus Magnus' Sea Serpent," *The Public Domain Review* (Feb 5, 2014): https://publicdomainreview.org/essay/olaus-magnus-sea-serpent/.
[332] France, *Disentangled* (2019), 65.

And it was the American sea-serpent that would constitute Jefferson's final link with cryptids in North America. While the Napoleonic Wars (1803–1815) raged in Europe, Jefferson found himself in the undesirable position of having to decide if America should ally itself with England or France. Not wishing to do either but also not wishing to remain neutral in the conflict, Jefferson made the risky move to have the still fledgling United States punch above its weight class. Figuring that both England and France had become dependent on trade with America, Jefferson introduced the Embargo Act of 1807 which halted all American international trade in a bid to end the war. Not only did this move not faze either of the feuding European countries it had a devastating effect on the U.S. economy.

One of the places hit the hardest by the Embargo Act was the New England seaport of Gloucester, Massachusetts. Opposition to Jefferson's Embargo Act manifested itself most visibly in the form of political cartoons printed in newspapers like the *Salem Gazette* which depicted Gloucester sailors being terrorized by various sea-monsters, in the form of either a large turtle or a classic sea-serpent, both emblazoned with the word "Embargo" on their sides. One editorial in the *Salem Gazette* went so far as to opine that it would be preferable that "our coasts then be surrounded by multitudes of these sea snakes rather than Jefferson's embargoes."[333]

Strikingly, the residence of Gloucester seemed to have gotten exactly what they wished for just a few years later. Between the years 1817 and 1819 hundreds of residents of this Massachusetts port town claimed to have spotted a *bona fide* sea-serpent cavorting in their waters. So numerous and consistent were these reports – many by multiple witnesses – that the Boston-based Linnaean Society of New England decided to investigate.[334]

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[333] Poole, *Monsters in America*, 20.

[334] The two most comprehensive accounts of this cryptozoological cold case are J.P. O'Neill's *The Great Sea Serpent* (Charlotteville, WV: Paraview, 2003) and France's *Disentangled*. Wayne Soni's *Gloucester's Sea Serpent* (Charleston, SC: The History Press, 2010) is less comprehensive but paradoxically more insightful.

This scientific body was headed up by Judge John Davis; one of President John Adams's "Midnight Judges" who had been appointed prior to Jefferson's inauguration in an effort to stymie the incoming administration. As a result, it is safe to conclude that Judge Davis was no fan of Jefferson. However, like Jefferson, Davis was a man of science and a patriot who took exception to French claims of American inferiority. Lawyer and historian Wayne Soini has suggested that Davis was motivated to investigate what has come to be known in cryptozoological circles as the Gloucester Sea-Serpent exactly because he hoped the monster would prove to be real and could then simultaneously be marshaled against both the French and Jefferson. By discovering the sea-serpent Davis could finally refute Buffon's claim of American degeneracy while also humiliating Jefferson by succeeding where the former president had failed.[335] Ultimately however the Linnaean Society of New England also failed to ascertain this elusive example of American hypothetical megafauna and rather suffered the embarrassment of publicly announcing they had captured the monster's progeny when in fact they had mistaken a common black snake for a sea-serpent.

In his February 23, 1806, reply to Dr. Reid, Jefferson's secretary thanked and informed the man on the president's behalf, noting that the teeth were being forwarded to the American Philosophical Society "which is the best disposition he can make of them for obtaining satisfactory enquiry into their character and origin."[336] Now in his twilight years Jefferson appeared to be losing his cryptozoological enthusiasm. To make matters worse his political opponents had also taken note of his repeated failures in this arena.

[335] Soini, *Gloucester's Sea Serpent*, 33-40.
[336] Gibbes, "Monograph of the Fossil Squalidae of the United States," 145.

2.5: Jefferson's Disillusionment

Lewis and Clark's failure to return with a living mastodon and megalonyx, or even report back with an alleged sighting of one, would prove a political liability and source of ridicule for Jefferson. His political opponents, the Federalists, viewed the Louisiana Purchase as both a colossal waste of taxpayer's money and a classic example of federal overreach, one which the Corps of Discovery had failed to justify.

One of the earliest attacks on Jefferson in this vein came from John Quincy Adams, a Federalist and son of former president John Adams. In 1807, Adams published an anonymous piece of doggerel, designed to be sung to the tune of "Yankee Doodle," ridiculing the Lewis and Clark Expedition for failing to locate Jefferson's hypothetical megafauna.

He never with a Mammoth met,
However you may wonder;
Nor even with a Mammoth's bone,
Above the ground or under.[337]

Attacks like these intensified two years later in 1809 as Jefferson's presidency was coming to an end and he was working to assure that his fellow Democratic-Republican James Madison would become the next president. That year the Federalists published the 19th century equivalent of a political attack ad – a poem penned by a precocious thirteen-year-old named William Cullen Bryant – lampooning Jefferson's preoccupation with monstrous animals.

Go, wretch, resign thy presidential chair,
Disclose thy secret measures, foul or fair,
Go search with curious eyes for horned frogs,
'Mid the wild wastes of Louisianan bogs;
Or Where the Ohio rolls his turbid streams
Dig for huge bones, thy glory and thy theme.[338]

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[337] Linda K. Kerber, *Federalists in Dissent: Imagery and Ideology in Jeffersonian America* (Ithaca, NY: Cornell University Press, 2018), 70. The entire doggerel can be read in Joseph A. Mussulman, "An Anonymous Piece of Doggerel," *We Proceed On* Vol. 23 no. 4 (Nov. 1997): 11.

[338] Kerber, *Federalists in Dissent*, 71-2. Cf. W.J.T. Mitchell, *The Last Dinosaur Book: The Life and Times of a Cultural Icon* (Chicago: Chicago UP, 1998), 119 and Semonin, *American Monster* (2000), 353.

A similar verse from the same year, written by Charles Miner, begins…

Talents he had: but for what use design'd?
Big bones, perhaps, or horned frogs, to scan;
But not t'illuminate a ruler's mind,
Nor meliorate the rugged state of man.
For government what pow'rs has he display'd?
Were not his patriotic virtues slim,
Whose wild caprice the nation oft betray'd,
To rove, implicitly, from whim to whim?[339]

Other attacks were more direct with one Federalist even likening Jefferson to the very monsters he sought while simultaneously parodying the Declaration of Independence: "Man is, by nature, a mighty Megalonyx, produced purposely, in a philosophical view, to prowl, pillage, propagate, and putrefy."[340] The well-known Federalist and Philadelphian publisher Joseph Dennie likewise derisively referred to Jefferson as "our political Mammoth."[341]

Josiah Quincy, Federalist satirist and future president of Harvard, ruthlessly belittled Jefferson's monograph on the megalonyx with words which sound like they could have come straight out a 20th century *Skeptical Inquirer* article on cryptozoology. Quincy noted that Jefferson's megalonyx was an animal both "unknown and *unseen*" and "*whose roaring resembled thunder,*" thus insinuating a far more prosaic explanation for what the earlier explores whose traveler tales Jefferson had cited may have actually heard. In the end Quincy concludes that the megalonyx is no more real than "the wolf in Little Red Riding Hood."[342]

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[339] "Enclosure: Charles Miner's Poem on Thomas Jefferson, [ca. 21 July 1809]," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/03-01-02-0340-0002. The "horned frogs" mentioned in both poems refer to a real animal, a genus of North American lizard, *Phrynosoma*, whose members even today are still commonly referred to as "horny toads" despite not being amphibians. For more on the federalists' use of these reptiles as another barb with which to poke Jefferson see David Dzurec, "Of Salt Mountains, Prairie Dogs, and Horned Frogs," *Journal of the Early Republic* Vol. 35 no. 01 (Spring 2015): 94-7.
[340] Ellis, *American Sphinx*, 255.
[341] Harold Milton Ellis, *Joseph Dennie and His Circle: A Study in American Literature from 1792 to 1812* (Austin, TX: University of Texas at Austin, 1915), 182.
[342] Kerber, *Federalists in Dissent*, 74.

Jefferson, for the most part, shrugged off these attacks; at one point even starting "a scrapbook of the poems, squibs, and caricatures of the Federalist press."[343] Though the Federalists might insist that "science and government" were somehow mutually exclusive disciplines, enough so that "he that walks in one, becomes, at every step, less qualified to walk with steadfastness or vigour in the other," Jefferson remained confident that the greater part of the American people would disagree.[344] In a Dec. 3, 1809, letter to Charles F. Welles, Jefferson remarked: "Of all the charges brought against me by my political adversaries, that of possessing some science has probably done them the least credit. Our countrymen are too enlightened themselves to believe that ignorance is the best qualification for their service."[345] In this sentiment Jefferson appears vindicated, insofar as Madison managed to win the election of 1808.

Now retired from the presidency, Jefferson was once again free to pursue his scientific and cryptozoological speculations at his leisure. However as has been repeatedly demonstrated Jefferson's most intense periods of interest in the existence of North American hypothetical megafauna happened not when he was idle but rather coincided with those periods in which he was the most fully embroiled in American politics: the darkest days of the American Revolutionary War, his appointment as ambassador to France, and his decision to run for president resulting in his position as vice-president and eventually two terms as president. Clearly Jefferson's cryptozoological preoccupations were intricately tied, in his mind at least, to American politics.

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[343] "Thomas Jefferson to Joseph Delaplaine, 12 April 1817," Founders Online, National Archives, https://founders.archives.gov/documents/Jefferson/03-11-02-0217.
[344] Anon., "The Claims of Thomas Jefferson to the Presidency examined at the Bar of Christinity," *The Monthly Magazine, and American Review* Vol. 3 no. 5 (1800): 361.
[345] "Thomas Jefferson to Charles F. Welles, 3 December 1809," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/03-02-02-0033.

W.J.T. Mitchell has argued that Jefferson had hoped that the *Incognitum* would serve not only as a biological refutation of Buffon's ideas but also become "the first symbolic 'political animal' of the United States, an emblem of Jefferson's vision of an ever-expanding continental empire of small farmers and artisans." Such a symbol was important to Jefferson since "like . . . every American politician since, [Jefferson aimed] to create the illusion that his party was above politics, and that his vision of a natural constitution would, like the paper constitution, provide a frame within which all parties could cooperate."[346] In this vein Jefferson's cryptids were more than just 'hidden animals,' they were, as geologist David Bressan has put it, quite literally "patriotic monsters."[347]

As a collective, these cryptids served not only as a refutation of Buffon's allegations of American degeneracy but an emblem of what the United States could and should become. Historian Caroline Winterer, building off the earlier observations of Paul Semonin, notes that one particularly fraught issue concerning the *Incognitum* was the positioning of the monster's tusks. Namely should they point up, like modern elephants, or down in a manner recalling the cuspids of a predator. Winterer sees this debate as one about the essential nature of the United States. Was this new nation destined to be "a gentle plant eater, a harmless specimen of American weakness" or "a vicious carnivore" armed with "formidable weapons by which the mastodon gored its hapless prey."[348] Jefferson, for his part, wanted the tusks to face down.

Having retired from politics it is not surprising to find that Jefferson's interest in North American hypothetical megafauna decreasing in his twilight years while not wholly vanishing. In

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[346] Mitchell, *The Last Dinosaur Book*, 119.
[347] David Bressan, *Scientific American* (May 15, 2014): https://blogs.scientificamerican.com/history-of-geology/thomas-jefferson-8217-s-patriotic-monsters/
[348] Caroline Winterer, *American Enlightenments: Pursuing Happiness in the Age of Reason* (New Haven, CT: Yale UP, 2018), 252-53.

a February 9, 1818, letter to fellow American Philosophical Society member François Adrian Van der Kemp, Jefferson once again returned to the subject of the megalonyx, his doubts about the animal's extinction still not fully extinguished. Musing on this topic, Jefferson poses a series of rhetorical questions to Van der Kemp.

> "1st is the animal known to have ever existed? For example the Sphynx, Cyclops, Centaur, Satyr, Faun, Mermaid, dragon, Phoenix? Cuvier indeed has proved to us by anatomizing their remains, that several animals have existed, now unknown to us. But then follows the 2d enquiry. Is it known that they are extinct? Have all parts of the earth been sufficiently explored to authorize a confident assertion? E.g. the interior parts of N. & S. America, the interior of Africa, the polar regions Arctic & Antarctic, the Austrasian division of the earth, for we are no longer to talk of it's quarters? of this latter division, a small portion of it's margin only has been explored: and yet what singular and unknown animals have been found there! Had a skeleton of one of these floated to our shores half a century ago, it would have been enrolled in the catalogue of 'species extinct.'"[349]

Jefferson's immediate point is the quixotic proposition that without a worldwide search for surviving representatives of the megalonyx there is no positive means of knowing if the creature is truly extinct or extant. But such conjectures also quickly lead Jefferson to speculate wildly about what else might be out there, resulting in a litany of mythical monsters including 'mermaids, dragons, and the phoenix' among others. In no other document do we find Jefferson sounding so much like a modern cryptozoologist.

Due to his deistic religious convictions Jefferson remained resistant to the idea of extinct until near the very end of his life. Boria Sax notes that the willingness of contemporary cryptozoologists to claim that numerous supposed monsters are really prehistoric holdovers also speaks to a general resistance among some to accepting the realities of mass extinction largely

[349] "Thomas Jefferson to Francis Adrian Van der Kemp, 9 February 1818," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/03-12-02-0352.

due to many in the cryptozoological community harboring similar faith-based misgivings.[350] Nevertheless, three years before his death, in a decidedly melancholy letter to John Adams, dated April 11, 1823, Jefferson conceded that: "We see . . . Certain races of animals are become extinct; and, were there no restoring power, all existence might extinguish successively, one by one, until all should be reduced to a shapeless chaos."[351]

[350] Sax, *Dinomania: Why We Love, Fear and Are Utterly Enchanted by Dinosaurs* (London: Reaktion, 2018), 169–72; Regal, *Searching for Sasquatch*, 173; Poole, *Monsters in America*, 134–5; Loxton and Prothero, *Abominable Science*, 285–95 and 308–9.
[351] "From Thomas Jefferson to John Adams, 11 April 1823," *Founders Online,* National Archives, https://founders.archives.gov/documents/Jefferson/98-01-02-3446. Cf. Thomson, "The 'Great-Claw' and the Science of Thomas Jefferson," 400.

CONCLUSION

Sometime around 1816, famed frontiersman Col. Daniel Boone, who had once delivered a letter from Thomas Jefferson to Gen. George Rogers Clark requesting monster bones, was invited to attend a gala held in his honor at the tavern of Rev. William Payne in Limestone, Kentucky. After dinner one of the distinguished locals, a Captain Ward, asked Boone if he might regale the guests with a story from his days on the frontier. Specifically, Ward requested the tale of Boone's "encounter […] with a giant which you killed." Boone obliged the request and launched into his tale only to be interrupted by another attendee, a man named Campbell, who remarked "inadvertently and with out thought" that Boone's account was patently "impossible" and therefore must be a lie. Offended by the man's skepticism Boone promptly ceased speaking. Captain Ward ordered Campbell to leave, finding it inexcusable that he should throw "a shade of doubt over what" a man as distinguished as Boone "might say." But Campbell refused to leave, and those assembled were deprived of the rest of Boone's tale.

Later that evening, after the partygoers had all departed, Boone retired to his room, which was that of Rev. Payne's teenage son Buckner Payne. The adolescent Payne asked Boone if he could hear the rest of the story about the giant and the old frontiersman agreed, remarking: "You shall have it, honey, but I would not have opened my lips to this time if that man had remained." Boone proceeded to tell Payne how, many years ago, he and one of his sons – he does not specify which, and Boone had ten children – were out in the woods of Kentucky searching for some stolen horses. The two men eventually split up, but Boone soon heard gunshots and fearing his son was under attack by a bear or panther rushed back to him. What he found however was his son hiding behind a tree as "the largest man that he had ever seen" barreled towards him.

> The giant got up to [my] son & caught him by his buckskin dress with one hand while with the other he jerked his gun from him, threw it, and broke it. [T]hen, catching [my]

> son by the knap of the neck & the seat of his britches . . . [the giant] raised him up over his head just as easy, honey, as I would raise up a child & slammed him on the ground; he raised him the second time & slammed him the same way . . . I had to shoot: a third slam would be sure to kill my son if it had not already done it. While the giant was stopping to raise him the third time I fired & the giant fell over on my son. I immediately ran up & jerked him off to find my son senseless & not breathing. I immediately made every effort for his restoration to life. It seemed to me more than an hour before he breathed.

After checking on his son, Boone turned to examine the monster he had felled.

> The giant was naked. I turned him over on his back & found both of the bullet holes near the left nipple . . . but neither of them had entered the body but had passed round & came out at the back. I then passed my finger into each of the holes & found the giant had . . . solid bone about ¾ of an inch thick which I found out by cutting through the bone with my tomahawk. The giant was not an Indian, for he was a pale yellow with long yellowish hair & not black as is common among Indians. His body was likewise covered with short hair; not very thick. His teeth were all . . . grown together in his head with rather small eyes & nose with very large feet & hands. We then stretched him out . . . & in measuring it with my hands I found that he was at least 10 ½ feet high.[352]

The historical provenance of this fantastic tale is decidedly suspect, having originated with Buckner Payne himself via a series of letters he wrote between 1875 and 1876 to historian Lyman Copeland Draper more than half a century after Boone's death.[353] Boone's biographer, historian John Mack Faragher, notes that while Payne's account contains numerous details that ring true regarding Boone's character, it runs contrary to the historical consensus that Boone never returned to Kentucky after leaving the state in 1799.[354]

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[352] The details of the event are drawn from a combination of John Mack Faragher, *Daniel Boone: The Life and Legend of an American Pioneer* (New York: Henry Holt & Co, 1992), 308– 9 and Carl Lindahl, "Daniel Boone, Yahoos, and Yeahohs: Mirroring Monsters of the Appalachians" in *North American Monsters: A Contemporary Legend Casebook*, ed. David J. Puglia (Logan, UT: Utah State University Press, 2022), 257-58 and 262. All quotes are directly from Lindahl who is directly quoting Payne 1875– 1876; spelling standardized.

[353] Lindahl, "Daniel Boone, Yahoos, and Yeahohs," 257. Though neither Faragher nor Lindahl mention it the Buckner Payne in question would appear to be American clergyman Colonel Buckner Harrison Payne (1799-1883) who wrote white supremacist tracts under the pseudonym of Ariel. The fullest account of the Payne family that I can find that lends credence to this suspicion come from Elder John Sparks, *Raccoon John Smith: Frontier Kentucky's Most Famous Preacher* (University Press of Kentucky, 2005), Chapter 5.

[354] Faragher, *Daniel Boone*, 309. The only other account we have of Boone in Kentucky after 1799 comes from the famed ornithologist John James Audubon. However, Audubon was not a trustworthy character being known for, among other things, making up stories about weird and monstrous animals he supposedly encountered in early America. See Neal Woodman, "Pranked by Audubon: Constantine S. Rafifinesque's description of John James Audubon's imaginary Kentucky mammals," *Archives of Natural History* Vol. 43 no. 1 (2016): 95–108 and Matthew

Nevertheless, the story of Boone's slaying of a hirsute giant over 10-feet-tall and "with very large feet" has been seized upon by cryptozoologists as one of the earliest accounts of what is by far North America's most famous cryptid: Bigfoot.

Skeptics often claim that Bigfoot did not exist until the late 1950s when a lumberjack named Jerry Crew walked into the offices of *The Humboldt Times*, a California newspaper, with a pair of giant plaster footprints and a story about how his logging crew was being terrorized by a monster. The paper ran the story of "Bigfoot" on October 8, 1958, and American popular culture has never been the same since.[355] However Skeptical assertions that Bigfoot originated in the mud of a California logging site and the pages of *The Humboldt Times* ignore the fact that encounters with wild-men have been a staple of American folklore since at least 1765 when the "Barrington Beast" was said to terrorize the residents of Berkshire County, Massachusetts; raiding colonists' larders and making a general nuisance of itself. Contemporary newspaper accounts describe the Barrington Beast as an "animal [which] resembles the human species yet is monstrous in its nature and actions."[356] This means that even if Payne's account of Boone's own encounter with such a monster is fallacious it still fits nicely within a nexus of well-established American legendry.[357]

R. Halley, "Audubon's Bird of Washington: Unravelling the Fraud that Launched *The Birds of America*," *Bulletin of the British Ornithologists' Club*, Vol. 140 no. 2 (2020): 110-141.

[355] Loxton and Prothero, *Abominable Science*, 41.

[356] Carole Owens, "'True' story of Barrington Bigfoot," *The Berkshire Edge* (Sept. 30, 2014): https://theberkshireedge.com/real-story-great-barrington-bigfoot/ and John O'Connor, "'God, I wish I hadn't seen that': On the trail of Bigfoot in the Berkshires," *Boston Globe* (Jan. 11, 2024): https://www.bostonglobe.com/2024/01/11/magazine/tracking-bigfoot-americas-favorite-monster-massachusetts/?p1=Article_Feed_ContentQuery&p1=Article_Feed_ContentQuery. Cf. The most exhaustive collection of primarily 19th century North American wild-man accounts is Chad Arment's *The Historical Bigfoot* 2nd Ed. (Greenville, OH: Coachwhip Pub., 2019).

[357] Interestingly the Boone/Bigfoot story originated with cryptozoological Skeptics rather than advocates, first appearing in the pages of the Fall 1994 issue of *Skeptical Inquirer*. While the author of the article, Hugh H. Trotti, was hoping to debunk Bigfoot by arguing that the monster's origins lay in a tall tale told by Boone – something Trotti rather un-skeptically accepts at face value – what he actually did was merely provide cryptozoologists with another account they could add to their growing repertoire of historic Bigfoot cases, thus further demonstrating how

Bigfoot was not among the many monsters which Jefferson sought in early America, despite some claims to the contrary.[358] However one suspects he would have embraced the quixotic hunt for the beast had it come to his attention.

This dissertation began with a discussion of how those committed to a Weberian paradigm have continually heralded the death of cryptozoology for the last thirty-years if not longer. Such proclamations have not only been inaccurate but in vain and have only served to obfuscate an important aspect of American history and culture. The aim of this dissertation has been to recognize that cryptozoology, rather than representing an anti-intellectual aberration of rationalist mid-20th century thought, is instead a continuation of an attempt to reconcile ancient folklore with modern science. An endeavor which traces its roots back to the very beginning of the United States and recognizes Thomas Jefferson as the first practitioner of cryptozoology in North America.

Because cryptozoology cannot be understood when framed as a science or pseudoscience, it has been reframed here as the "scientification of folklore"; a development in which the traditional myths and legends of monsters are transformed, via the process of speculative

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closely the two supposedly opposing sides of this issue are linked. Hugh H. Trotti, "Did Fiction Give Birth to Bigfoot?", *Skeptical Inquirer* Vol. 18 no. 5 (Fall 1994): 541-42.

[358] Idaho State University anthropologist Dr. Jeff Meldrum, a prominent Bigfoot advocate, has claimed that "Lewis and Clark wrote in their journals of passing over mountains said to be inhabited by fierce giants, more akin to bears than people, known as the 'people who wear no moccasins.' These giants dwelt in caves and among the rocky crags 'feeding on roots and the flesh of such horses they could take or steal from those who passed through their territory.' (http://thejhub.com/meldrum-to-give-bigfoot-presentation-in-montpelier/) However this isn't exactly accurate. The entry that Meldrum is referring to is from Lewis's journal dated 08/14/1805 and reads (in part) about how the expedition was "obliged to climb over steep and rocky mountains where we could find no game to kill nor anything but roots such as a fierce and warlike nation lived on." Lewis's Indigenous guide goes on to explain that his people call this "fierce and warlike nation… the broken mockersons or mockersons with holes" and that they "inhabited those mountains and lived like the bear of other countries among the rocks and fed on roots or the flesh of such horses as they could take or steal from those who passed through their country" (https://lewisandclarkjournals.unl.edu/item/lc.jrn.1805-08-14#ln19081408). So, this mountain dwelling tribe doesn't "wear no moccasins" but rather wears broken ones on account of the rocky terrain. They are not "more akin to bears than people" but rather live "like the bear." Lewis says nothing about them being giants. Modern historians generally identify these people as the Tukudikas nation. In fiction however this idea is embodied in several works including Eric Penz's novel *Cryptid: The Lost Legacy of Lewis and Clark* (2006) as well as the Image comic book series *Proof* (2007–2010) and *Manifest Destiny* (2013–2023).

zoology, into putative accounts of hypothetical megafauna thus rooting them in the quotidian and allowing them to adopt a veneer of veracity otherwise denied to such creatures in the modern era.

As paleoartist John Conway has succinctly summarized, cryptozoology is not, as is so often claimed, "the study of animals not yet described by science" – since after all "cryptozoologists have little interest in undescribed beetles" – but rather the process of "entertaining the notion that legendary beasts are real animals."[359] Or as Michel Meurger, with his typical exactness, has phrased it: "Cryptozoologists triumph when they can substitute Neanderthals, giant apes and long necked seals for devils, trolls and dragons. But it is a short-lived victory. They are still asking us to believe, just as the storytellers of old did."[360] This is the rubric under which cryptozoologists have operated since Jefferson's time. And it is this process which has allowed monsters a continued place in our world, where the language of science is authoritative. This then is the real value of cryptozoology.

As we have seen, Jefferson fully participated in this process by reinterpreting the traditional stories of both Indigenous peoples as well as the traveler's tales of early settlers in support of his assertions that such hypothetical megafauna as the *Incognitum*, giant moose, and tremendous lions existed somewhere in the unexplored expanses of North America. While this type of ethno-knowledge has often proved helpful to field zoologists in identifying new species, cryptozoologists' euhemeristic assertion that all mythical and legendary creatures must be based on real animals is both reductive with regards to understanding folklore and has so far failed to generate any worthwhile results in their various monster hunts.[361]

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[359] Russ Dobler, "Holding Out Hope for Bigfoot," *The Pulp Press* (April 2014): https://thepulpyeg.wordpress.com/2014/04/07/holding-out-hope-for-bigfoot/
[360] Bernard Heuvelmans and Michel Meurger, "Interpreting Myth," *Fortean Times* no. 54 (Summer 1990): 49.
[361] Naish, *Hunting Monsters*, 11–29.

Along these same lines, cryptozoologists also make extensive use of anecdotal evidence of people's alleged sightings or encounters with cryptids. As was the case with both the giant moose and the megalonyx, Jefferson also cited various individual's testimonies as evidence for the existence of the monsters he sought. When critics of cryptozoology point out that humans are not naturally good observers—let alone good at identifying wild animals when they have had no formal training in doing so—many modern cryptozoologists respond as Jefferson did in his day by reasserting both the witness's assumed familiarity with local wildlife and their general honesty as individuals—honesty here apparently precluding one's ability to make honest mistakes. Moreover, such narratives, referred to by folklorists as *memorates*, should not be understood as first-hand accounts of encounters with monsters but rather as folklore infused interpretations of anomalous experiences.[362]

Additionally, there is Jefferson's frequently marshalled argument that monsters could be hiding in remote areas seldom visited by man. The importance of vast tracts of unexplored wilderness in which such monsters can sequester themselves is a line of argument still regularly trotted out by contemporary cryptozoologists to explain why they believe there is a chance of finding dinosaurs lurking in the jungles of Africa, sea-monsters at the bottom of the ocean, or even a colony of Sasquatches in the deep Pacific Northwest woods.[363]

Another prominent parallel between Jefferson and modern cryptozoologists is that in attempting to account for the existence of his various monsters Jefferson invoked what

[362] Linda Milligan, "The 'Truth' about the Bigfoot Legend," *Western Folklore* Vol. 49 no. 1, Contemporary Legends in Emergence (Jan. 1990): 91.
[363] Heuvelmans, *On the Track of Unknown Animals*, 3–17 and Heuvelmans, *The Natural History of Hidden Animals*, 77–93.

paleobiologist Darren Naish has termed the "prehistoric survivor paradigm" of cryptozoology in which various cryptids are identified as animals otherwise known only from the fossil record.[364]

Lastly, Jefferson's cryptozoological pursuits were ultimately motivated not only by his deep and abiding love of his country but also for science. Skeptics often defame cryptozoologists as harboring a fundamentally anti-intellectual mindset despite anecdotal evidence to the contrary.[365] Jefferson was many things, but anti-intellectual was not one of them. As President John F. Kennedy once told a party of Nobel Prize laureates, they represented "the most extraordinary collection of . . . human knowledge that has ever been gathered together at the White House with the possible exception of when Thomas Jefferson dined alone."[366]

Why was the presence of monsters in early America so important to Jefferson? Because 18th century French propogandists, marshalling the work of encyclopedist Georges-Louis Leclerc, the Count of Buffon, had propagated the idea that the American experiment was doomed to failure on account of the fact that the North American continent was a land of poisonous miasmas, noxious plants, sickly animals, and effete Indigenous inhabitants so that any European colonists who settled and stayed here were likewise destined to succumb to the same degeneracy. As a patriot Jefferson could not abide such libel and so as early as 1780 – in the midst of the Revolutionary War – Jefferson decided to fight back. His weapon of choice: cryptozoological monster lore. In this way we can see that Jefferson and Buffon's debate was never truly about science but rather about dueling narratives concerning the nature of the New World; in the same way that modern debates about cryptozoology between advocates and Skeptics are likewise not truly about science but rather competing epistemological narratives.

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[364] Naish, *Hunting Monsters*, 38.
[365] Ibid., 218–21
[366] John G.T. Anderson, *Deep Things Out of Darkness: A History of Natural History* (Los Angeles: U. of California Press, 2013), 283 n. 11

And which of these two competing narratives won out? Today few Americans are even aware of Buffon's slanderous accusations about their country. Conversely, as historian W. Scott Poole has observed, Jefferson's preoccupation with monsters "in early America" can be seen as the beginnings of what continues to be "a huge body of popular belief about other wondrous creatures of the New World, from Bigfoot to sea serpents, lake monsters, and lizard men."[367] In other words, the very beginnings of American cryptozoology.

[367] Poole, *Monsters in America*, 12.

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