BIOGRAPHICAL MEMOIRS

Edwin Harris Colbert

September 28, 1905–November 15, 2001
Elected to the NAS, 1957

A Biographical Memoir by Stephen L. Brusatte

Edwin Harris Colbert—known to his friends and colleagues as Ned—was among the most prominent paleontologists of the twentieth century. His impact was vast in scope, spanning the academic and public realms. Ned collected fossils on all seven continents and published more than 400 research papers. He established an expertise on fossil mammals as a student, and his 1935 Ph.D. thesis was awarded the Daniel Giraud Elliot Medal by the National Academy of Sciences (NAS) for "meritorious work in zoology or paleontology." As a curator at the American Museum of Natural History (AMNH), he changed his research focus and became a leading expert on amphibians and reptiles, which earned him election to the NAS in 1957. Perhaps Ned's greatest skill—and surely his greatest legacy—was his popularization of paleontology. Through several books and the dinosaur exhibits he curated in New York, he instilled a romantic image of dinosaurs to the general public. The Colbertian view of dinosaurs was one of primeval beasts thundering across lost worlds, fantastic creatures that may look like monsters but could also be studied with exacting scientific techniques. His writings were imbued with stories of culture and history, befitting of his role in bridging two great generations in paleontology. Ned's mentor, Henry Fairfield Osborn was an imperious man of science and exemplified the era when aristocrats in big museums paid roughnecks to collect ever-more-gigantic dinosaurs. Ned's students would be among the instigators of the "Dinosaur Renaissance," a movement steeped in a newer understanding of evolutionary biology that reimagined dinosaurs as more active, energetic, bird-like animals—a concept that holds today.

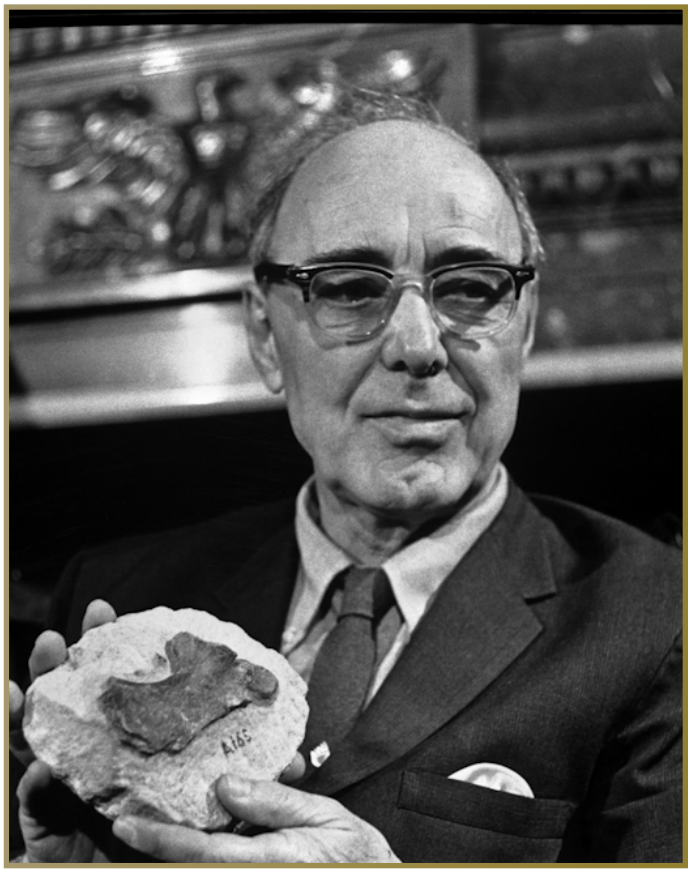

Figure 1 Edwin 'Ned' Colbert showcasing a fossil bone. Image #334947, American Museum of Natural History Library.

Edwin Harris Colbert was born on September 28, 1905, in the small town of Clarinda, in southwest Iowa, in a house built by his father, George Harris Colbert. He had two older brothers, Herschel and Philip, who were fourteen and nine years his senior, respectively. For many years before Ned was born, his father was superintendent of schools in Page County, Iowa. Then, months after Ned's birth, George was appointed as professor of mathematics at a newly established teacher-training institute in Maryville, Missouri, now known as Northwest Missouri State University. In 1906, the family moved to a new house with an ample backyard full of fruit

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trees and vegetable patches that abutted the Wabash Railroad. Young Ned remembered his parents hauling him out of bed to watch the express train from Omaha to St. Louis—his first glimpses at a world beyond his comfortable rural home. George Colbert knew little of his family's ancestry but assumed he was descended from French Huguenots who fled to Scotland and then the United States, hence their francophone surname—which Ned's family pronounced in an anglicized way, "kohl-bert."

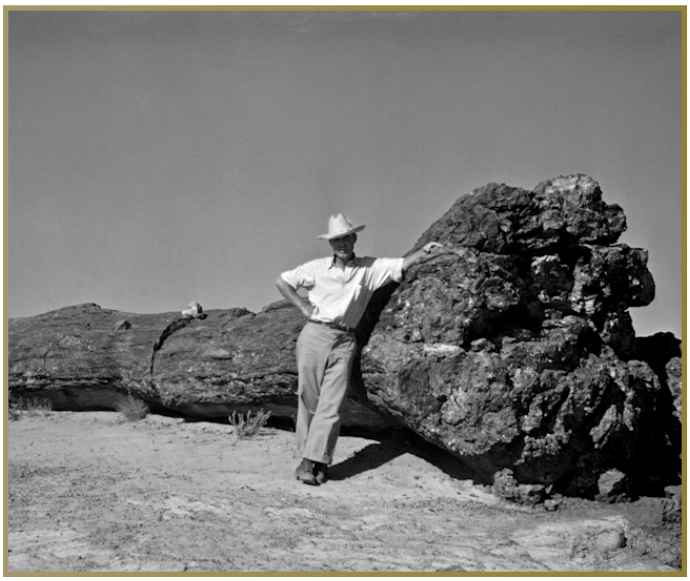

Figure 2 Edwin 'Ned' Colbert standing next to a Triassic-aged petrified tree in Arizona in 1949. Image #320592, American Museum of Natural History Library.

More was known about Ned's maternal lineage. His mother, Mary Adamson Colbert, was a housewife who Ned described warmly as a "lively" lady who "felt somewhat out of place living in a small town." She performed in amateur plays and harbored dreams of being an actress or writer. Mary was descended from Quakers who escaped England in the 1670s and spawned several generations that witnessed formative moments of American history. One of Mary's forebears was a blacksmith killed in New Jersey while attempting to handcuff a British soldier during the American Revolutionary War. Her father—Ned's grandfather—grew up near Kansas City, robbed graves to obtain cadavers for his medical studies, joined an unsuccessful gold rush to Colorado when he became bored with medicine, served as a surgeon in the Union Army during the American Civil War, and eventually settled as a country doctor in the tiny town of Holton, Kansas.

Ned grew up in a bucolic middle-class Midwestern society. He was smaller than most of his peers, so he learned to survive with his wits, which as he quipped, "fostered an ornery streak." One of his formative memories was attending Buffalo Bill Cody's *Wild West* show with his mother, a spectacle that dazzled his senses. In third grade, he transferred to the elementary school associated with his father's college, and he recalled classmates who rode ponies to school, his first glances of automobiles and hot air balloons, and blissful winters sledding in the snow. When war broke out in Europe, his brothers were called into military service, and Ned, then in the sixth grade, took a job as a paperboy. In 1919, he started high school, where he was the smallest boy in the entire school. He developed a knack for reading and writing: his favorite class was English, and he was hired as a reporter for Maryville's *Democrat-Forum* newspaper, tasked with covering events at the school. He learned to scout out scoops, write to deadline, and work with editors—skills that would later serve him well as a science writer.

Much of Ned's childhood was spent gamboling around the fields and forests of Maryville, often accompanied by his terrier dog, Cap. He became enthralled with the life of an outdoorsman but found it "an impossible dream…for one situated as I was in the cornfields of the Middle West." Then, in the seventh grade, he joined the Boy Scouts and for several years went on hikes and camping trips, where he lived in tents in the woods for weeks on end. A friend's copy of a birding guide got him hooked on birdwatching, which led him away from the formalities of the Scouts to more exploratory "boyish rambles" in nature. Through these adventures, Ned began to experience "some of the satisfaction of science: mystery, discovery, identification, the solving of a puzzle."

It was during this time that Ned first encountered fossils. He collected shells and corals of Pennsylvanian age (323-299 million years ago) from the black shale banks of a stream called Florida Creek. He was intrigued by them, but no more so than other things he collected during his wanderings. He did, however, bring some of the fossils home and displayed them in a small "museum" in the corner of his father's study, alongside arrowheads, Civil War buttons, and other treasures. It was his first experience curating a collection—something that would later consume much of his professional life as a "museum man."

Off to College

In 1923, Ned began his university studies. He did not go far: he enrolled in his father's teacher-training institute. Ned didn't aspire to become a teacher but was drawn by the college's liberal arts courses. Thoughts of a future career turned to forestry, and for a few summers he worked for the U.S. Forest Service, for which he built trails at Arapaho National Forest in Colorado. He enjoyed the work outdoors, but it ultimately proved unsatisfying, and he felt pulled towards some sort of academic career "that would involve books combined with a modicum of living in the wilds."

Ned quickly found his calling through a twist of circumstance. While taking the train from his home to Colorado for his second summer as a forester, he stopped in Lincoln, Nebraska, to visit his brother Phil, who after World War I had become an engineer at the University of Nebraska. While in Lincoln, Ned visited the university museum (now the University of Nebraska State Museum), which housed a famous collection of fossil mammals—particularly horses, camels, rhinoceroses, and mastodons—from the Cenozoic Era (66 million years ago until today) of the American plains. He was smitten. The fossils were fascinating, and Ned recalls being swept away by "the beauty (of) bones." But more importantly, he realized that such fossils were records of ancient life that could illuminate the history of Earth. "Here were the tangible remains of animals that lived in a past incredibly different from our world," he waxed poetically in his 1989 autobiography, *Digging into the Past*, vividly remembering the moment when his life attained direction.

This posed a problem. Paleontology and geology were not taught at the teacher-training institute in Maryville, so if Ned wanted to pursue these new interests as a career, he would need to seek education elsewhere. After months of deliberating, Ned wrote to Phil in the spring of 1926, asking his older brother for advice. Phil went to the university museum and spoke with its director, Erwin Barbour, who invited Ned to Lincoln for an interview. "What had been for me something of a fantasy had suddenly become a reality," Ned recalled, and he hastily arranged a train ticket to Lincoln. Barbour was impressed by Ned's enthusiasm and offered him a student assistantship at the museum, under the condition that he transferred to the University of Nebraska for the autumn 1926 semester. Ned accepted.

The first weeks and months in Lincoln were difficult. Ned found living in the bigger city to be challenging and the large lecture halls and more impersonal teaching style "traumatic." Gradually, however, he settled in. He took solace in studying English, which actually became his undergraduate major, and in working at the museum with Barbour. Barbour had studied under the eminent paleontologist Othniel C. Marsh at Yale University and regaled Ned with stories of the "Bone Wars," the chaotic decades of the late-nineteenth century when Marsh and his rival, Edward D. Cope of Philadelphia, were embroiled in a bitter competition to find the best and biggest dinosaur and mammal fossils. These stories ignited Ned's fascination with the swashbuckling history of paleontology—a subject he explored often in his books.

As Ned worked with Barbour, he learned the trade of the museum world. His first assignments were custodial, and for days he dustproofed the oak exhibit cases by licking black tape to adhere the glass panels to their wooden frames. Thus proving his resolve, he was given ever-more important duties: moving fossils into the museum's new larger exhibit space, Morrill Hall (which stands today), cleaning and conserving specimens, and eventually mounting skeletons for exhibition. His first mount was an ancient rhinoceros, followed by two other skeletons of similar age: an extinct hoofed mammal called a chalicothere that looked like a Frankenstein hybrid of a horse and gorilla, and a seven-foot-tall "hell pig" called an entelodont, whose head was scabbed with knobs of bone and bite marks from rivals. These animals lived during the Miocene (23-5 million years ago), when Nebraska was a savanna with a fauna similar to modern-day southern Africa.

Fossils of Miocene mammals abounded in Nebraska, and in 1928 Ned joined an expedition to collect specimens for the newly enlarged museum. It was Ned's first proper paleontological fieldwork experience, highlighted by his discovery of the jaw of an extinct "bear-dog," one of the first truly large carnivorous mammals in Earth history. Ned returned to the field the next summer and helped collect fossil horses, camels, and early relatives of dogs and cats. On these trips, Ned learned techniques for identifying and collecting fossils that he would later employ on expeditions around the world.

The Big City

In 1928, Ned obtained his bachelor's degree from the University of Nebraska. He briefly remained in Lincoln to take graduate courses and sent applications to the Ph.D. programs at the University of California, Yale, and Columbia. He soon received a rejection letter from the University of California, Berkeley: the university's new paleontologist, William Diller Matthew, had recently arrived from the AMNH in New York, but he didn't have space in his fledgling lab for Ned. Incidentally, this would be Ned's first interaction with Matthew, a man he spent only fleeting moments with but who would loom large in his academic and personal lives. Yale also sent a rejection, although later the department changed course and offered Ned a scholarship. By that time, however, Columbia University had also tendered a scholarship, which Ned accepted. It was a dream opportunity: studying in New York, with access to the enormous fossil collection at the AMNH. In 1929, Ned made his way to Chicago and boarded a train for America's largest city. He had never been so far east before in his life.

At the AMNH—that beacon of science that rises like a cathedral on the west side of Central Park—Ned entered the orbits of some of the most storied paleontologists of that—or any—era. His chief teacher was William King Gregory, an authority on animals from fishes to mammals, who Ned adored as a "gentle and delightful mentor to lead one through the five hundred million year(s) of vertebrate evolution."

Roy Chapman Andrews and Walter Granger—veterans of AMNH's fabled Central Asiatic Expeditions to Mongolia—were still around, as was Barnum Brown, the man who discovered *Tyrannosaurus rex* and, through his weekly CBS radio show, became America's first celebrity paleontologist. Matthew, whose expertise on fossil mammals cast a long shadow, had recently departed for Berkeley, replaced by a young George Gaylord Simpson, who played a key role in the "modern synthesis" of evolutionary biology. Ned became close with Granger, who he treasured as "a sort of surrogate father." Ned's relationship with Simpson was decidedly cooler, however. Although similar in age—Simpson was three years older—they differed drastically in temperament. Ned compared Simpson's brilliance and level of written output to that of Shakespeare and felt the gulf between them owed "to the simple fact that Simpson was a genius; it was difficult for him to come down…to the level at which the rest of us operated."

Figure 3 Edwin 'Ned' Colbert (second from left) teaching a Columbia University course in the Seminar Room of Department of Paleontology at the American Museum of Natural History in 1957. Image #2A6100, American Museum of Natural History Library.

Lording over all of these men was one of the most forceful personalities in American science, a man with a vast fortune and an ego to match. Henry Fairfield Osborn was the son of a railroad magnate who grew up in a mansion that looked like a castle. His father wanted him to follow the family business, but he chose paleontology instead, studied with Cope, shook the hand of Darwin on a tour of Europe, and established the vertebrate paleontology research program at the AMNH, eventually assuming the directorate of the entire institution. Reviled today for his racist views and embrace of eugenics, Osborn wasn't seen much more favorably during his own time. In his books, Ned described him variously as tyrannical, demanding, imperious, pompous, vain, and tactless, among other choice adjectives. In one story, Ned recounted Osborn having a marble bust of himself installed in the museum library, illuminated by a spotlight. Yet, Ned became a protégé of sorts, working as Osborn's personal research assistant for five years until Osborn's death in 1935. Most of their joint research concerned the evolution of elephants—particularly changes in the size and shape of their teeth—over tens of millions of years.

Not wanting to be tarnished by Osborn's reputation, and needing to demonstrate independence in his Ph.D. thesis, Ned expanded his focus to another group of fossil mammals. He grew enamored with Cenozoic specimens collected in the 1920s by Brown in the Siwalik Hills, a front range of the Himalayas in India. Among them were extinct elephants bearing tusks of many fantastic shapes and sizes, primitive antelopes, pigs, and giraffes, including a species called *Sivatherium* that had horns above each eye and antlers sticking out of the back of its head. When he visited London with Osborn in 1931, Ned was able to study another collection of Siwalik mammals at the British Museum of Natural History, followed by a six-week trip to continental Europe, where he witnessed Nazi Brown Shirts marching in Munich. In 1933, Ned received job security with an appointment to the AMNH staff as an assistant curator. Two years later, he completed his Ph.D. on the Siwalik mammals to great acclaim. It earned him the Daniel Giraud Elliot Medal from the NAS and congratulatory letters from Osborn and Simpson, which Ned cherished.

Ned was now a respected mammal specialist, and he launched a research program at the AMNH focused on mammalian evolution. He jumped into studies of fossils from what was then Burma (now Myanmar) and Mongolia collected by Brown, Andrews, and Granger. Ned became interested in how mammals from across the world are related, how they migrated over millions of years, and how connections among the continents might have been different in the past. When Osborn died, Ned was tasked with bringing their joint work on elephants to publication. This kept him deskbound for a few years, but in the summer of 1938 he joined a team from Philadelphia's Academy of Natural Sciences on an expedition to the Agate Fossil Beds of Nebraska, his first true fieldwork in a decade. On the train west, he sat alongside Civil War veterans of the Battle of Gettysburg, who were traveling home from a ceremony marking the seventy-fifth anniversary of the battle. For two months, Ned and his colleagues collected rhinos, chalicotheres, hell pigs, tiny camels, and rodents with horns on their noses—the same types of fossils he studied and exhibited as an undergraduate at the University of Nebraska.

The Nebraska expedition gave Ned a renewed taste for fieldwork, although he put his ambitions on hold for the next two summers to focus on his growing family (of that, more soon). In 1941, he got back on the fossil trail, with an AMNH expedition to the White River Badlands, which span the borders of Nebraska, South Dakota, and Wyoming. Prospecting for bones while followed by wild horses, Ned found a beautiful skeleton of *Hyaenodon*, one of the fiercest predators of the Oligocene (34-23 million years ago). Ned was set to continue the expedition westward into Wyoming, but the trip was cut short by the sudden death of Granger, his dear friend and confidant, of a heart attack in early September. Ned returned to New York with a haul of fossil mammals in tow. But just as his research and fieldwork were beginning to click, the Japanese bombed Pearl Harbor in December 1941. That distant event changed the course of Ned's career. No longer would he specialize in fossil mammals or hunt their fossils.

Family Life

For two months in the summer of 1930, William Diller Matthew returned to his old quarters at the AMNH to complete projects that had gone fallow upon his move to Berkeley. Ned mustered the courage to introduce himself to the man who had rejected his Ph.D. application a few years prior, and the two "enjoyed a speaking acquaintance" as they passed each other in the halls. Their interactions were little more than small talk, as Matthew spent most of his time in the office, feverishly working as if time was running out. And it turned out to be so: a few months later, in September, Matthew died at the age of 59 following an unsuccessful kidney operation.

One day that summer, while Ned was perched on a stepladder in the corridor scrutinizing elephant teeth, he saw two women emerge from Matthew's office. One was Matthew's wife, the other their daughter, Margaret. It was no more than a passing glance. Then, a few months later, Margaret graduated from the California School of Arts and Crafts (now California College of the Arts) and was hired as a staff artist at the AMNH. She was a highly skilled technical artist, specializing in scientific illustrations and reconstructions of ancient landscapes. One of her assignments was to illustrate the Siwalik fossils for Ned's thesis. The two struck up a friendship, and then a romance, sparked by their shared love of Broadway plays. In 1933, they were married by the Episcopalian minister who decades earlier officiated the wedding of Margaret's parents. Osborn was fond of their partnership and gifted them a tea set with a note "penned in his usual large hand advising us that it was much better to drink tea than coffee."

Soon after their marriage, Margaret left the museum to become a freelance artist and start a family with Ned. They had five sons: George, David, Philip, Daniel, and Charles. The Colbert family settled in Leonia, New Jersey, a small town across the George Washington Bridge from Manhattan. It sat upon the Palisades: the rocky cliff, towering above the Hudson River, that solidified from the magmas that triggered the great end-Triassic mass extinction around 200 million years ago. Throughout their six-plus decades of marriage, Margaret was Ned's constant companion. They travelled and did fieldwork together, and Margaret illustrated many of his books. Margaret designed the logo for the Society of Vertebrate Paleontology, which is still in use today. In 1937, Ned helped edit William Diller Matthew's magnum opus on the fossil mammals of New Mexico, and in 1992 he published a biography of the father-in-law he barely knew.

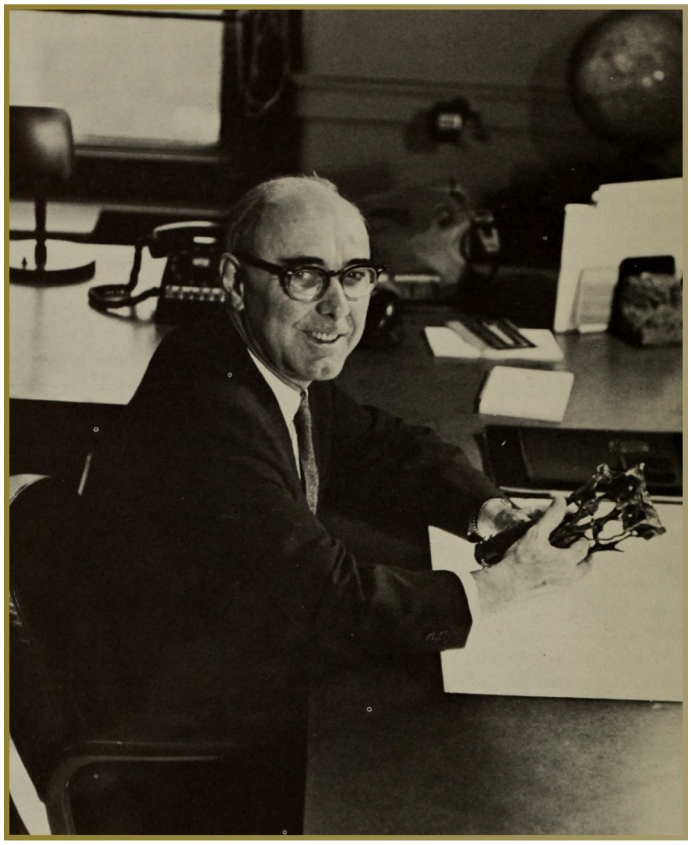

Figure 4 Edwin 'Ned' Colbert in the 1960s. Public domain.

From Mammals to Reptiles

Just as Ned's young family was flourishing, the American entry into World War II upended his life in unexpected ways. Ned was not drafted into the military but served as a civilian air raid warden in Leonia. Many other AMNH staff, however, went off to war, including Simpson, who served as an intelligence officer in North Africa and Italy. Compounded with Granger's death and Brown's retirement, these

departures left Ned nearly alone at the museum. His bosses made a bold decision: Ned would replace Brown as the curator in charge of amphibians and reptiles, on the assumption that Simpson would return to resume his research on fossil mammals. Ned took his new assignment in stride, accepting that "the whole course of a paleontological life is based to a large degree upon opportunism—on what one may find in the field and how one uses the resources of the laboratory."

Now Ned needed to familiarize himself with amphibians and reptiles. He found a willing tutor in Alfred Sherwood Romer, the jovial Harvard University professor whose 1933 textbook, *Vertebrate Paleontology*, was the standard-bearer of the time. In the autumn of 1943, Ned was dispatched to Texas to salvage a truck owned by the AMNH; he invited Romer along, and the trip became a pilgrimage to more than twenty famous Permian Period (299-252 million years ago) fossil localities. While hopscotching between the sites, Romer captivated Ned with tales of the Triassic Period (252-201 million years ago), the geologic time period following the Permian. Ned came to see the Triassic as one of the keystone transitions in Earth's history, when ancestral species were giving rise to frogs, pterosaurs (flying reptiles), crocodiles, and dinosaurs: groups "destined to rule…(for) almost 200 million years."

In 1946, Ned launched a reconnaissance trip to Arizona, where colorful rocks of the Chinle Formation near Petrified Forest National Monument (now National Park) were known to preserve Triassic fossils. The next year he mounted a proper expedition, but on his way to Arizona he became side-tracked in New Mexico, where Chinle rocks were exposed at a hamlet called Ghost Ranch. Ned was stunned by the "first stupendous view" of the cliffs above the ranch, bedecked in a palate of "red and orange, lemon yellow, maroon, chocolate, and brown." The landscape was so beautiful, the light so perfect, that the artist Georgia O'Keeffe had taken up residence there. Ned soon became acquainted with O'Keeffe, and the two spent many "pleasant hours at her home," where the artist quizzed the scientist about the bones and rocks that were common motifs in her work.

On their first morning at Ghost Ranch in 1947, Ned's crew—which included George Whitaker and Thomas Ierardi from the AMNH—found the skull of a phytosaur, an archaic reptile with a long snout that resembled a crocodile. It was an auspicious start. A few hours later, Whitaker ran to Ned breathless, bones in his hand. "As soon as I saw them," Ned recounted, "I recognized them as belonging to *Coelophysis*." At that time, *Coelophysis* was acknowledged as one of the world's oldest dinosaurs but was known from only a handful of fossil fragments, discovered in the nineteenth century by one of Cope's collectors. Whitaker led the team to the site, they started to dig, and the more they dug, the more they found. "Before us was a bone bed of remarkable abundance. It was a paleontological treasure beyond one's wildest dreams!," Ned proclaimed.

Figure 5 A cast skeleton of the small, carnivorous Triassic dinosaur *Coelophysis* from the Whitaker Quarry at Ghost Ranch, New Mexico, discovered by Colbert and his team. Credit: Thomas Quine Wikimedia Commons.

Teams from the AMNH, and later other institutions, would continue to excavate the *Coelophysis* graveyard for years. All told, hundreds of skeletons have been recovered, making the Whitaker Quarry one of the densest accumulations of dinosaur bones ever unearthed. These fossils provide an unparalleled portrait of an early dinosaur: a sharp-toothed and pointy-clawed carnivore that sprinted on its hind legs. Merely the size of a small pony, its humble stature is symbolic of the first 30 million years of dinosaur history, when these "terrible lizards" had yet to grow to stupefying sizes, and instead occupied supporting roles in food webs dominated by amphibians and crocodile relatives. Ned would remain consumed with *Coelophysis* for the rest of his career and in 1989 published a monograph on its anatomy.

Continents Adrift

Over time, Ned became regarded as one of the world's experts on Triassic vertebrates, which garnered him invitations from colleagues around the world for research and fieldwork collaboration. In 1959, Ned and Margaret visited Brazil and collected Triassic fossils, including dicyondonts, early synapsid relatives of mammals with tusks sticking out of their upper jaws and portly bellies for digesting plants. Three years later, he traveled to apartheid-era South Africa, where within the first hour of collecting, his troop spotted six skulls of *Lystrosaurus*, an Early Triassic dicynodont the size of a pig. The next year, the great statistician Prasanta Chandra Mahalanobis hosted Ned at the Indian Statistical Institute in Calcutta (now Kolkata). After meeting Prime Minister Jawaharlal Nehru and his daughter (and future PM) Indira Gandhi, and

witnessing Hindu-Muslim riots that killed more than 100 people, Ned was finally able to visit the field. There, too, he found a *Lystrosaurus* skull.

Ned's curiosity was piqued: why were such similar dicynodont fossils found on three widely separated continents? He harkened back to a theory he read about as a student, proposed by the maverick German meteorologist Alfred Wegener in 1912: continental drift, the idea that all land was once joined together but had since drifted apart. Wegener was ridiculed for decades; Ned remembered being taught that he was a deluded dreamer. But advances in mapping the seafloor after World War II had shown that the Earth's surface was indeed mobile, spawning a new theory called plate tectonics that was revolutionizing the science of geology, although it was still being debated into the 1960s. Ned began to suspect that Wegener was correct. "As I looked at the skull" of the Indian *Lystrosaurus*, he effused, "with one of its eyes staring up at the heavens, it had the appearance of an African fossil." He believed that all of the southern continents must have once been connected, but he sought more evidence to prove it.

Figure 6 A skeleton of the Triassic dicynodont *Lystrosaurus*, the species discovered by Colbert and his team across the southern continents, helping to corroborate the theory of continental drift (plate tectonics). Credit: Rama, Wikimedia Commons.

In 1968, Ned received a phone call at his office. The caller, an Ohio State University student named Ralph Baillie, had just returned from geological fieldwork in the Transantarctic Mountains and thought he had found a fossil bone. It was a brazen claim: nobody had ever found such a thing in Antarctica before. A few days later, Ralph traveled to New York and presented Ned with a small parcel, inside of which a two-inch-long shard sat on a bed of cotton. Ned recognized it as the back end of an amphibian jaw, and in August 1968 they described it together in *Science* as "the first record of tetrapod life from Antarctica."

Soon after, Ned met officials from the National Science Foundation, who encouraged him to go to Antarctica to look for more fossils. Ned wavered; he was sixty-four years old and close to retirement, but he was talked into one last great expedition. He set off in October 1969, days after selling his New Jersey home, moving his affairs to a new home in Flagstaff, Arizona, and filing his retirement paperwork. As his Hercules LC-130 plane skied to a landing on the ice near McMurdo Station and he emerged to a below-zero wind, Ned realized this would be fieldwork unlike any other. After three weeks of ice training courses, Ned's team was dropped at their camp near the Beardmore Glacier. At one point, their helicopter crashed, although remarkably nobody was injured.

Immediately they set out looking for bones. On November 23, while Ned stayed in camp, some team members rode motor sleds to Coalsack Bluffs, cliffs carved out of Triassic sandstones and siltstones. They returned at lunch and triumphantly told Ned they had found fossils. Ned joined them in the afternoon, and for the next several days, as they collected a cache of isolated limb bones and vertebrae. It was challenging work: the walk to the fossil site, in Ned's words, "spelled doom and perdition" because it was so icy, and the air was so cold that they could not use liquid water to make plaster of Paris to protect the fossils, but instead smothered the bones in melted beeswax. Their persistence paid off, however: on December 4, team member Jim Jensen found a right maxilla bone containing a tusk. There was no mistaking it: it was another *Lystrosaurus*.

This discovery finally proved it to Ned: now that *Lystrosaurus* and closely related dicynodonts were known from South America, Africa, India, and Antarctica, these lands must have been connected during the Triassic. The team shared his excitement, as did Larry Gould—chief scientist on the first of Richard Byrd's expeditions to the South Pole—who happened to visit their camp that evening. Gould sent word of the discovery to the National Science Foundation, which contacted the press, and just two days later a front-page article in *The New York Times* heralded their *Lystrosaurus* as "one of the truly great fossil finds of all time." Ned was proud of the expedition: "[We] did something that will never again be done in the history of science. We opened a *continent*, paleontologically, that…had hitherto been locked." Their expedition inspired decades of paleontological fieldwork in Antarctica, which continues today, and snared Ned a unique honor: a range of nunataks near the fossil site was named the Colbert Hills.

Dinosaur Evangelist

Ned was an enthusiastic popularizer of science. He was the first "pop" paleontologist in America—and probably

worldwide—to write a series of books on dinosaurs that were widely bought, read, and discussed by the public. "Through his writings, he aroused public interest in dinosaurs because he was able to write in an entertaining manner and still make it scientifically accurate," praised Eugene Gaffney, who succeeded Ned as fossil reptile curator at the AMNH, in Ned's *New York Times* obituary.

Ned penned his first book, *The Dinosaur Book*, in 1945, as a handbook to supplement the exhibits at the AMNH. According to *The New York Times*, it helped feed a growing public interest in dinosaurs and remained in print for two decades. In 1955, he released the textbook *Evolution of the Vertebrates*, which was reprinted four more times, most recently in 2001. Other writings included narrative stories of dinosaurs and fossil discoveries, such as 1968's *Men and Dinosaurs* and 1984's *The Great Dinosaur Hunters and their Discoveries*, which enchanted me when I read it some fifteen years later as a teenager newly obsessed with fossils. Paleontologist David Jablonski fondly remembers receiving Ned's 1962 *Dinosaurs: Their Discovery and Their World* as a present for his eighth birthday. Jablonski recounted to me how the book was "transformative…with a depth and texture utterly unlike the kids' books I'd been reading up to that point." In a 1999 letter to Ned, Jablonski thanked him: "Your books were pivotal in helping me—and my parents!—see paleontology as a scientific endeavor and as a profession."

Generations also learned about dinosaurs through the exhibits Ned curated at the AMNH. For several years in the 1950s, Ned led a refurbishment of the museum's dinosaur halls, directing how the fossils should be displayed and writing much of the exhibit text. One famous hall included Jurassic-aged giants like *Apatosaurus*, *Stegosaurus*, and *Allosaurus*, and another a ferocious *Tyrannosaurus rex*, mounted in a pose evocative of Godzilla. The exhibits stood for around forty years, until they were updated in the 1990s by another of Ned's successors, Mark Norell (my Ph.D. supervisor when I followed Ned's footsteps by studying in the joint AMNH-Columbia doctoral program). In an obituary in *Herpetological Review*, Norell reminisced about the exhibits he revamped: "The old halls were Ned's—and they were New York icons."

Later Years

After his retirement from the AMNH, Ned and Margaret moved to Arizona, and Ned settled into a position as curator of Vertebrate Paleontology at the Museum of Northern Arizona. He continued to write scientific articles and popular books and remained active in research for three more decades. He passed away on November 15, 2001, at the age of ninety-six. In his obituary, Norell conveyed a story from sources in Arizona that had Ned "sitting up in bed and delivering his last lecture on paleontology minutes before his death." Margaret passed away on February 24, 2007.

Ned will long be remembered as the rare scientist who both did groundbreaking research and communicated it successfully to the public. He enjoyed the life of a collegial scholar, his writings infused with stories about his friends and colleagues, who in turn spoke highly of him. A popular teacher, he mentored luminaries of the next great generation of dinosaur paleontologists, including John Ostrom (who advocated the theory that birds evolved from dinosaurs—which Ned came to accept) and Dale Russell. Ned craved doing science more than the politics behind it, never understanding why some scientists—and maybe he was thinking back to Osborn?—"lusted for power and position." He summed up his mindset in his 1989 autobiography: "the people who are truly remembered are the scholars, the experts who seek out the truth and make the truth known through their activities, and especially through the things they write."

Ned received many honors throughout his life, including the 1935 Daniel Giraud Elliot Medal from the NAS, the 1970 Gold Medal for Scientific Achievement from the AMNH, the 1989 Romer-Simpson Medal from the Society of Vertebrate Paleontology, and the Hayden Memorial Geological Award from the Academy of Natural Sciences. In 1998, the therapod dinosaur genus *Nedcolbertia* was named in his honor, based on three skeletons discovered by Christopher Whittle in Utah's Cedar Mountain Formation.

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All quotations, unless otherwise attributed in the text, are from Colbert's 1989 autobiography *Digging into the Past* (Dembner Books), which, along with his other books, was an invaluable source of information on his life. I thank David Jablonski for sharing his 1999 letter to Colbert, discussion about Colbert's writings, and the invitation (along with Hopi Hoekstra) to write this piece. Thanks also to Mark Norell for regaling me with stories of AMNH history; Nick Fraser, Tom Williamson, and John Wible for sharing impressions of Colbert; and my brother Chris for introducing me to Colbert's books as a teenager.

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