United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

| Section number | Page | 1 |
|----------------|------|---|
| | | |

| Name of Property |
|--|
| County and State |
| Name of multiple listing (if applicable) |

Supplementary Listing Record

NRIS Reference Number: SG100003030

Date Listed: 10/19/2018

Property Name: Whitaker Dinosaur Quarry

County: Rio Arriba

State: NM

This Property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation

Signature of the Keeper

Date of Action

Amended Items in Nomination:

Historic and Current Function:

The Historic and Current Functions are amended to add: Landscape/Natural Feature and Conservation Area.

The NEW MEXICO SHPO was notified of this amendment.

DISTRIBUTION:

National Register property file Nominating Authority (without nomination attachment)

56 3030

National Register of Historic Places Registration Form

| This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Reg Bulletin, How to Complete the National Register of Historic Places Registration Form. If any item does not apply to the property documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter categories and subcategories from the instructions. | being |
|---|-----------------|
| 1. Name of Property | F HISTORIC PLAC |
| Historic name: Whitaker Dinosaur Quarry MATIONAL I | PARK SERVICE |
| Other names/site number: Coelophysis Quarry | |
| Name of related multiple property listing: | |
| <u>N/A</u> | |
| (Enter "N/A" if property is not part of a multiple property listing | |
| 2. Location | |
| Street & number: 1708 Highway 84 | |
| City or town: Abiquiu State: New Mexico County: Rio Arriba Vicinity: X | |
| 3. State/Federal Agency Certification | |
| As the designated authority under the National Historic Preservation Act, as amended, | |
| I hereby certify that this X nomination request for determination of eligibility mee the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60 | |
| In my opinion, the property X meets does not meet the National Register Criteria recommend that this property be considered significant at the following level(s) of significance: | . I |
| X national statewide local Applicable National Register Criteria: | |
| $\underline{X}A$ $\underline{X}B$ \underline{C} $\underline{X}D$ | |
| 8/21/18 | |
| Jeff Pappas, Ph.D., New Mexico State Historic Preservation Officer | |
| Signature of certifying official/Title: Date | |
| State or Federal agency/bureau or Tribal Government | |
| In my opinion, the property meets does not meet the National Register criteria | 1. |
| Signature of commenting official: Date | |
| Title: State or Federal agency/bureau or Tribal Government | - |

| Vhitaker Dinosaur Quarry lame of Property | Rio Arriba, New Mexi |
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| 4. National Park Service Certifica | tion |
| I hereby certify that this property is: | |
| entered in the National Register | |
| determined eligible for the National | Register |
| determined not eligible for the Natio | onal Register |
| removed from the National Register | |
| other (explain:) | |
| | |
| Anh | 10/19/2018 |
| Signature of the Keeper | Date of Action |
| | |
| | |
| 5. Classification | |
| Ownership of Property | |
| (Check as many boxes as apply.) | |
| Private: | |
| Public – Local | |
| Public – State | |
| Public – Federal | 9 |
| | |
| Category of Property | |
| (Check only one box.) | |
| Building(s) | |
| District | |
| Site | |
| Structure | |
| Object | |

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| те от Ргорепу | | County and State |
| Number of Resources within Prope | | |
| (Do not include previously listed reso | | |
| Contributing | Noncontributing | |
| 0 | 0 | buildings |
| 1 | | sites |
| | 0 | structures |
| 0 | 0 | objects |
| 1 | 0 | Total |
| Historic Functions (Enter categories from instructions.) | | |
| (Effet categories from instructions.) | | |
| Other: Dinosaur Quarry | | |
| | | |
| | | |
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| | | |
| Current Functions | | |
| (Enter categories from instructions.) | | |
| Other: Dinosaur Quarry | | |
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| 7. Description | |
| Architectural Classification | |
| (Enter categories from instructions.) | |
| Other: Dinosaur Quarry | |
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| | |
| Materials: (enter categories from instructions.) | |
| Principal exterior materials of the property: Earth, Stone | |

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Whitaker Dinosaur Quarry is a small paleontological quarry located at Ghost Ranch in the Chama River valley west of Abiquiu in southern Rio Arriba County, New Mexico. Ghost Ranch is a roughly 21,000 acre educational and spiritual retreat that includes museums, educational classes and workshops, lodging, hiking, horseback riding, and tours of the landscapes and houses associated with Georgia O'Keeffe's residency at the ranch beginning in 1934. The geology, which attracted O'Keeffe to the area, is defined by brightly colored striated hills, mesas, and chimney formations that represent four geologic eras. The Ghost Ranch Conference Center, which is located one mile north of U.S. Highway 84, includes two-dozen one- and two-story buildings along the northeast side of an open meadow. The Whitaker Quarry is located roughly 1,600 feet northeast of the conference center. The oval-shaped shaped quarry is located 6,600 feet above sea level on the southwest side of a small hill facing Kitchen Mesa. The quarry measures roughly 200 feet by 100 feet and is covered with loose soil and rock. The quarry has been filled since the last block was removed in 1985.

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Narrative Description

The Whitaker Dinosaur Quarry is a small paleontological quarry located at Ghost Ranch in the Chama River valley west of Abiquiu in southern Rio Arriba County, New Mexico. Ghost Ranch is a roughly 21,000 acre educational and spiritual retreat that includes museums, educational classes and workshops, lodging, hiking, horseback riding, and tours of houses associated with Georgia O'Keeffe's residency at the ranch beginning in 1934. The geology is defined by brightly colored striated hills, mesas, and chimney formations that represent four geologic eras. The Ghost Ranch Conference Center, which located one mile north of U.S. Highway 84, north of Abiquiu Reservoir. The complex includes two-dozen one- and two-story buildings along the northeast side of an open meadow. Whitaker Quarry is located north of the conference center on a steep hillside facing Kitchen Mesa.

The geology at Ghost Ranch spans almost 250 million years, and includes important Triassic paleontological sites. Ghost Ranch and the Whitaker Quarry are located in the Chama Basin, a broad shallow basin along the eastern margin of the Colorado Plateau in the transition between the plateau and the Rio Grande rift. The 1,300-foot escarpment surrounding Ghost Ranch includes Mesozoic rocks in breathtaking red, white, and yellow that contain a rich, but fragmentary, geologic record spanning approximately 130 million years. Portions of river systems, vast deserts, saline lakes, broad mudflats, and ocean shorelines are preserved at Ghost Ranch, making it one of the most diverse representations of ancient times and environments of any property of comparable size in the world.

The oldest, exposed rocks at Ghost Ranch belong to the Late Triassic Chinle Group, a thick package of brick-red-to-red siltstone and mudstone and white-to-tan sandstone that consist of six distinct rocks units that can be traced around the Chama Basin. These rocks were deposited by rivers between 205 and 228 million years ago, when the Ghost Ranch area was located about 10° north of the equator. The basal Shinarump Formation (formerly called Agua Sarca Sandstone) is a white-to-yellow-to-green, coarse-grained quartz sandstone that locally contains abundant wellrounded quartzite cobbles; this sandstone is overlain the maroon shales of the Salitral Formation. The Shinarump and Salitral Formations are exposed south of the Ghost Ranch conference center along the Chama River. On top of the Salitral Formation is a second conglomeratic sandstone, a mudstone sequence composed of the Poleo Formation, a medium-bedded, yellowish-gray micaceous sandstone with conglomeratic lenses of siltstone and calcrete clasts, overlain by a thick red-to-reddish brown mudstone, the Painted Desert Member of the Petrified Forest Formation. In many places, a transitional, thinly bedded sandstone unit, the Mesa Montosa Member of the Petrified Forest Formation, is present between the Poleo Formation and the Painted Desert Member. The Poleo Formation and Mesa Montosa Member sandstones can be seen along Highway 84 southeast and south of Ghost Ranch conference center headquarters. Both of these sandstone-mudstone packages were deposited by large Mississippi River-scale river systems flowing from central Texas toward the northwest to Nevada. 1

¹ This paragraph derives from "Ghost Ranch and Vicinity," New Mexico Bureau of Geology and Mineral Resources, https://geoinfo.nmt.edu/tour/landmarks/ghost_ranch/home.html

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Ghost Ranch lies in the Chama Basin, a broad shallow basin along the transition between the eastern margin of the Colorado Plateau and the Rio Grande rift. The Colorado Plateau, which occupies parts of New Mexico, Arizona, Utah, and Colorado, has been a relatively stable block in the Earth's crust for at least 600 million years. Consequently the rocks in the area are generally flat-lying and are only mildly deformed by broad-scale folding. Ghost Ranch and its environs feature a spectacular geological landscape of cliffs and escarpments dating mainly from the Permian to the Cretaceous periods (some 170 million years), as well as some later formations and sediments. Portions of ancient river systems, vast deserts, saline lakes, broad mudflats, and ocean shorelines are preserved at Ghost Ranch.²

The uppermost part of the late Triassic Chinle Group is exposed in the vicinity of the Ghost Ranch conference centers. Most of the facilities at Ghost Ranch are built on the mudstones of the Painted Desert Member of the Petrified Forest Formation. Several of the notable fossil quarries at Ghost Ranch, the Snyder Quarry, Orphan Mesa site, Hayden quarry and the Canjilon phytosaur quarry, are located in this unit at about the same stratigraphic level. The youngest Chinle Group unit, the Rock Point Formation, is locally exposed in the escarpment north and east of the ranch just below the conspicuous red-and-yellow Entrada Sandstone cliffs. The uppermost unit is a thin-bedded red-brown-to-gray brown siltstone to sandstone. The world-renowned Whitaker Quarry, which contains thousands of skeletons of the early Triassic dinosaur, Coelophysis bauri, is located in this interval.³

The Late Triassic Chinle Group is a thick package of brick-red-to-red, grey, green, and white siltstones and mudstones and white-to-tan sandstone that consist of six distinct rock units. This is the unit in which the quarries containing the bones and teeth of dinosaurs and other long-extinct animals are situated. It also represents by far the greatest exposure of rocks on the ranch property. Roughly 210 to 230 million years ago, Ghost Ranch was a subtropical site covered by rivers, streams, floodplains, and expanses of dry, sandy soils. Plant life was abundant and there was a great diversity of terrestrial and aquatic animal life. Dinosaurs were present but they were small and not very diverse (compared to their later history), and they were mostly small carnivores. The communities were dominated by other, long-extinct reptiles, many related to crocodiles and others of comparable size that roamed both the land and the waterways. Most were carnivorous but a few were herbivorous or omnivorous, which ranged in size from a few tens of centimeters to almost ten meters. Most of these animal types became extinct by the end of the Triassic Period, so the quarries at Ghost Ranch and vicinity represent the peak of their evolutionary flowering.⁴

The Shining Cliffs at Ghost Ranch, a formation in the Piedre Lumbre named for the high content of quartzite, were laid down during the Jurassic-Period beginning about 165 million years ago when a shallow sea covered the area. The fossil-bearing hills and mounds of red-and-grey siltstone beneath the cliffs are earlier, dating from the Triassic Period, some 230-210 million

² Ibid

³ Ibid; Edwin H. Colbert, *The Little Dinosaurs of Ghost Ranch* (New York: Columbia University Press, 1995), 247.

⁴ Ibid.

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years old. These deposits reflect older floodplains, lakes, and river systems that were inhabited by the first North American dinosaurs and their relatives. Above the cliffs are younger deposits of Late Jurassic, Cretaceous, and even Tertiary Age that represent a variety of environments.

The Todilto Formation, which consists of a basal limestone-and-shale unit (Luciano Mesa member) and, in places, 25-to-100 feet of gypsum (Tonque Arroyo member), was deposited atop the Entrada Sandstone. This Formation reflects the incursion of shallow seas into the area (limestone and shale), and their later retreat (represented by the gypsum evaporites). The sea, an extension of the Pacific Ocean, is not thought to have reached New Mexico, but salt waters seeping through the desert formed a large saline lake that later evaporated. The Todilto Formation caps the Shining Cliffs; its greyish color forms a sharp contrast to the yellow-green rocks of the underlying Entrada Sandstone. The higher Summerville Formation, another Middle Jurassic deposit of variegated sandstones, siltstones, and mudstones represents ancient rivers and lakes. These and higher deposits sit atop the Shining Cliffs, but are recessed with slopes that are less vertical but still very steep. The Brushy Basin member of the Late Jurassic Morrison Formation, the only member of the Morrison Formation present at Ghost Ranch, is composed of pistachio-green-to-salmon-pink mudstone with a few interbedded tan-and-green sandstone beds.

The later Cretaceous Period is seen in the mesas at Ghost Ranch, which are capped by Cretaceous coastal plain, shoreline, and marine units that were deposited along the western margin of the Western Interior Seaway approximately roughly 93-125 million years ago. Roughly 25 million years of Earth's history is missing from the Late Jurassic Morrison Formation and the Early Cretaceous Burro Canyon Formation. These rocks are pinkish-green and were also formed by rivers and lakes at the beginning of the Cretaceous Period. Rocks from the later Cretaceous, such as the Dakota Formation and the Mancos Shale, as well as rocks from the Early Tertiary (after the Age of Dinosaurs), are known from the vicinity of Ghost Ranch, but do not appear as outcrops within the bounds of the ranch.

Quaternary terrace and pediment gravels are the youngest units exposed around Ghost Ranch. These appear as drainages and extensive landslide and colluvial deposits along the escarpment. These represent the erosion of more ancient rocks, the incorporation of organic and other particles, and the redeposition of these materials as the remains of yearly floods and rains, or the flood deposits of local streams.

Ghost Ranch is a world-renowned site for Triassic paleontology. Its low, red-grey mounded hills and washes include three important fossil quarries and sites where isolated skulls, bones, or skeletons have been found. The three major quarries are the Canjilon Quarry, where Coelophysis was possibly first discovered, the Whitaker Quarry, the principal Coelophysis quarry, and the Hayden Quarry, which includes a variety of fossil reptiles, amphibians, vertebrates, invertebrates, and fossil plants.

The oval-shaped Whitaker Quarry is located roughly 1,600 feet northeast of the Ghost Ranch conference center. The quarry is located 6,600 feet above sea level on the southwest side of a small hill facing Kitchen Mesa. The quarry, which measures roughly 200 feet by 100 feet,

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comprises a remarkable accumulation of thousands of animal skeletons, including thousands of Coelophysis skeletons. Discovered by George Whitaker in the summer of 1947, the quarry was excavated in 1947-1948. The quarry was excavated a second time in 1980-1981. In 1985, one block was removed to serve as the centerpiece of the Ruth Hall Museum of Paleontology at Ghost Ranch. The quarry has since been covered with loose earth and gravel.

| | Dinosaur Quarry | Rio Arriba, New Mexico |
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| Name of Pro | operty | County and State |
| 8. | Statement of Significance | |
| | cable National Register Criteria "x" in one or more boxes for the criteria qualifying the property for g.) | or National Register |
| X | A. Property is associated with events that have made a significal broad patterns of our history. | nt contribution to the |
| X | B. Property is associated with the lives of persons significant in | our past. |
| | C. Property embodies the distinctive characteristics of a type, per construction or represents the work of a master, or possesses or represents a significant and distinguishable entity whose conditioning individual distinction. | high artistic values, |
| Х | D. Property has yielded, or is likely to yield, information import history. | ant in prehistory or |
| | ria Considerations a "x" in all the boxes that apply.) | |
| х | A. Owned by a religious institution or used for religious purpose | es |
| | B. Removed from its original location | |
| | C. A birthplace or grave | |
| | D. A cemetery | |
| | E. A reconstructed building, object, or structure | |
| | F. A commemorative property | |
| | G. Less than 50 years old or achieving significance within the p | ast 50 years |

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| ame of Property | County and State |
| | |
| Areas of Significance | |
| (Enter categories from instructions.) | |
| a : | |
| Science | |
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| | |
| Period of Significance | |
| 1947-1968. The period of significance begins in | |
| excavated and ends in 1968 to include the books a | and articles associated with the professional |
| life of Edwin H. Colbert | |
| | |
| | |
| | |
| Significant Dates | |
| 1947 | |
| 1948 | |
| 17.10 | |
| | |
| | |
| Significant Person | |
| (Complete only if Criterion B is marked above.) | |
| Colbert, Edwin H. | |
| | |
| | |
| | |
| Cultural Affiliation | |
| Cultural Alimation | |
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| | |
| | |
| Architect/Builder | |
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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Whitaker Dinosaur Quarry is significant at the national level under National Register Criterion A in the area of science because it is an exceptional Late Triassic paucispecific theropod assemblage representing a mass kill of dinosaurs and a limited number of specimens that resulted in new theories about the evolution of dinosaurs. The quarry is the largest assemblage of Coelophysis bauri, a bipedal, carnivorous early dinosaur that was generally 6 to 8 feet long, with a fossil record that includes the full spectrum of skeletons ranging from juveniles to fully grown adults, and both genders. The Coelophysis Quarry, first excavated by Edwin H. Colbert in 1947, almost immediately changed how the scientific community understood the evolution of dinosaurs. Coelophysis, a small, lizard-like dinosaur, among the first of its type, evolved over 150 million years into thousands of larger dinosaurs, such as Velociraptors, Tyrannosaurus Rex, and eventually birds. The Whitaker Dinosaur Quarry is significant at the national level under National Register Criterion D in the area of science because the quarry is likely to yield important information because blocks of skeletons were removed only during excavations in 1947-1948, 1981-1982, and 1985, and significant fossils are known to exist in the quarry. The Whitaker Dinosaur Quarry is significant national level under National Register Criterion B because of its association with Edwin H. Colbert, the leading paleontologist at the Whitaker Quarry, who supervised the removal and distribution of the Coelophysis blocks and later wrote more than 20 books and 400 scientific articles on paleontology generally and on the significance of the discovery of Coelophysis.

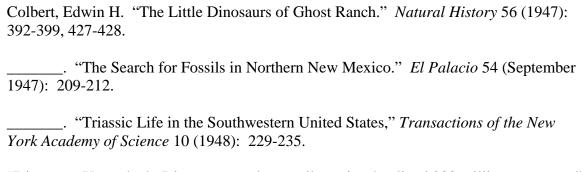
Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

The Whitaker Dinosaur Quarry is significant at the national level under National Register Criterion A in the area of science because The Whitaker quarry at Ghost Ranch, Rio Arriba County, New Mexico, is one of the most extensive Late Triassic bone beds known, yielding thousands of skeletons of the theropod dinosaur Coelophysis bauri, which led to new understandings of the evolution of dinosaurs. In 1947, Edwin H. Colbert, working for the American Museum of Natural History in New York, began excavations of this unique accumulation of Coelophysis skeletons that were a result a of mass kill that left thousands of specimens, including juveniles and adults of both genders. Colbert understood immediately the significance of the quarry because it contained rare, intact examples Coelophysis skeletons, a small dinosaur that is among the earliest-lizard-like dinosaurs, which, over 150 million years, evolved into thousands of larger dinosaurs, including Tyrannosaurus Rex and Velociraptors, and eventually birds.

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The discovery was soon announced to the public, and it received worldwide press coverage, including the front page of the *New York Times*, a feature article in *Life* magazine, and Colbert's own account in his museum's magazine, *Natural History*. Ghost Ranch was deluged with reporters, writers, photographers, and curiosity-seekers through 1947. A few of the accounts published during the excavations in 1947-1948 include:



"Dinosaurs Unearthed: Diggers unearth a small species that lived 200 million years ago." *Life* magazine 23 (August 11, 1947): 49-52.

"Museum Finds Dinosaurs of 200 Million Years Ago: Skeletons of ancestor of forty-ton monster are only three or four feet in length—discovered in New Mexico." *New York Times*, July 14, 1947.

The fossil record at the Whittaker Quarry is exceptional because the skeletons display a full spectrum of growth development, ranging from juveniles to fully grown adults, and both genders are represented. It is not known why so many dinosaurs of one species died at once in same location. Usually predators do not congregate unless there is an exceptional food source. Although a few fish and reptile fossils are mixed in with the Coelophysis skeletons, there is nothing to suggest a major food attraction. The skeletons are well-preserved (about 25 percent are articulated or complete) and show no signs of scavenging, so the animals were buried quickly after death. The leading hypothesis that is consistent with both the fossil and sediment record at the quarry is that the animals were killed by a flood, washed into a low spot or pond, and immediately buried. Other species that were trapped include the recently discovered aquatic reptile Vancleavea; a beaked relative of crocodiles named Effigia okeeffeae that superficially resembled a carnivorous dinosaur that lived on land, and is a carnivorous relative of today's crocodiles; and a new small carnivorous dinosaur named Daemonosaurus.⁵

When paleontologists discover extensive bone beds belonging to a single genus of dinosaur, they often speculate that the dinosaur roamed in packs or herds. The current weight of opinion is that Coelophysis was indeed a pack animal, but it's also possible that isolated individuals drowned

⁵ This paragraph derives from "Ghost Ranch and Vicinity," New Mexico Bureau of Geology and Mineral Resources, https://geoinfo.nmt.edu/tour/landmarks/ghost_ranch/home.html; Colbert, 113-115.

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together in the same flood, or in a series floods over years or decades, and washed into the same location.

Coelophysis was a bipedal, carnivorous early dinosaur that averaged 110 pounds and was generally 6-to-8 feet long, although some adults were as long as 10 feet. It had a long, tapered tail and a long neck that supported an oval-shaped head with a single row of fearsome teeth. Because so many specimens have been discovered, paleontologists have been able to establish two basic body types: "gracile" (small and slender) and "robust" (larger and thicker). It's likely that these corresponded to the males and females of the genus, though it's not clear which was male and female. (In many species of birds, which evolved from theropod dinosaurs, the females are larger than the males.)

Coelophysis possessed a furcula, or wishbone, which provided a strong basis for heavy forward muscles and a pelvis that served as pivot on which the skeleton was suspended. Its elongated pelvic bones provided the support for massive muscles that powered the prominent hind limbs for speed, important to a bipedal runner. In an evolutionary refinement, the pelvis strengthened both the skeleton and the musculature. Its femurs were hollow like that of birds and could be raised nearly parallel to the lower bones of the pelvis. Colbert estimated that Coelophysis had a long stride, which enabled it to run from 15 to 27 miles per hour. The long tail counterbalanced the body as it ran and aided in quick changes of direction. The small arms included sharp claws that could grasp and hold objects. The pelvis supported reproduction by laying eggs, rather than live births.⁶

Predatory animals rely more on their sense of sight and smell than their prey. Like many small theropod dinosaurs of the Mesozoic Era, Coelophysis had unusually well-developed eyesight, which presumably helped it to home in on its prey. This may hint that this dinosaur hunted at night. Bigger eyes also mean a correspondingly bigger brain, which was necessary to process and coordinate visual information.

Despite their visual similarities, Late Triassic dinosaurs, such as Coelophysis, were only distant ancestors to birds; it wasn't until 50 million years later, during the late Jurassic Period, that smaller theropods, like Archaeopteryx, began evolving in an avian direction, sprouting feathers, talons, and primitive beaks.

Edwin Colbert understood the connection between Coelophysis and a very similar dinosaur discovered in the 1970s in what is now Zimbabwe. Syntarsus is now recognized as a type of Coelophysis. Their disparate locations are a function of plate tectonics. During the Triassic and Early Jurassic periods the continents were joined as a "supercontinent" called Pangaea. Hundreds of other fossil plants and animals support the theory of plate tectonics. The fauna known so far from the Whitaker Quarry includes:

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⁶ Colbert, 130-147.

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The skull and skeletal remains of a new species of small carnivorous dinosaur called Daemonosaurus.

The type specimen of a phytosaur named Redondasaurus bermani, which is related to Machaeroprosopus from the Canjilon Quarry.

Redfieldid rayfin fishes.

Remains of coelacanths, an ancient type of lobefin related to tetrapods that were widespread during the Triassic era.

The type specimen of Effigia okeeffeae, a small reptile that superficially looks like a beaked carnivorous dinosaur but is actually a relative of crocodiles.

The type specimen of Vancleavia campi, a small aquatic carnivorous reptile with a large head and fangs.

The type specimen of Whitakersaurus, a relative of Sphenodon, the sole member of an ancient group of reptiles, now confined to a few islands near New Zealand.

Remains of a rare Triassic era reptile named Drepanosaurus, believed to have had both aquatic and arboreal habits.

Bones of the very early crocodile, Hesperosuchus, which Colbert originally described based on material from the same (Chinle) formation in northern Arizona.

Bones of a possible new species of a postosuchid (crocodile relative), another small crocodylomorph.

The Whitaker Dinosaur Quarry is significant at the national level under National Register Criterion D in the area of science because the quarry is likely to yield important information because blocks of skeletons were removed during excavations in 1947-1948, 1981-1982, and 1985, and significant fossils are known to exist in the quarry. The quarry has been covered with loose soil and rock since 1985.

The Whitaker Dinosaur Quarry is significant at the national level under National Register Criterion B because of its association with Edwin H. Colbert, the leading paleontologist at the Whitaker Quarry who supervised the removal and distribution of the Coelophysis blocks and later wrote more than 20 books and 400 scientific articles on paleontology generally and on the significance of the discovery of Coelophysis. Colbert (September 28, 1905-November 15, 2001), a paleontologist at the American Museum of Natural History in New York, ensured that the AMNH became the center for the study of Coelophysis. He shipped five of the first thirteen blocks to the museum, which led to three-to-four completed skeletons by the late 1950s.

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Colbert's life work was studying, supervising, preparing, and writing about the Coelophysis skeletons. Colbert's discovery and his writings are largely responsible for the current understanding of Coelophysis and the role early lizard-like dinosaurs had in the evolution of dinosaurs over 150 million years. His meticulous and scholarly study of Coelophysis and other dinosaurs resulted in his voluminous number of scientific publications on dinosaurs. His books include:

Siwalik Mammals in the American Museum of Natural History, 1935.

The Dinosaur Book: The Ruling Reptiles and Their Relatives, 1945 (republished 1951).

Colbert's Evolution of the Vertebrates: A History of the Backboned Animals through Time, 1955 (later editions 1969, 1980, 1991, and 2001).

The World of Dinosaurs, illustrated by George Geygan, 1961 (republished 1977).

Dinosaurs: Their Discovery and Their World, 1961.

The Age of Reptiles, illustrated by Margaret Colbert, 1965 (republished 1987).

Men and Dinosaurs: The Search in Field and Laboratory, 1968 (republished 1971)

Millions of Years Ago: Prehistoric Life in North America, illustrated by Margaret Colbert, 1968.

Wandering Lands and Animals: The Story of Continental Drift and Animal Populations, 1973 (republished 1985).

The Year of the Dinosaur, illustrated by Margaret Colbert, 1977

Dinosaurs: An Illustrated History, 1983.

The Great Dinosaur Hunters and Their Discoveries, 1984.

Digging into the Past: An Autobiography, 1989.

The Little Dinosaurs of Ghost Ranch, 1995.

Fossil-Hunter's Notebook: My Life with Dinosaurs and Other Friends, 1980.

Little Dinosaurs of Ghost Ranch, 1995.

| Whitaker Dinosaur Quarry | |
|--------------------------|--|
| Name of Property | |

Rio Arriba, New Mexico
County and State

Criterion Consideration A: Religious Properties

Ghost Ranch and the Whitaker Quarry meet Criteria Consideration A: Religious Properties in which a religious property is eligible if it derives its primary significance from architectural or artistic or historic importance. Ghost Ranch and the Whitaker Quarry have been owned and operated by the Presbyterian Church U.S.A. since 1955. The church maintains a conference center, where the public is invited to participate in a variety of educational classes and outdoor recreational opportunities. In addition, the church manages the Ruth Hall Museum of Paleontology where the Edwin Colbert discoveries are displayed.

Since the discovery of the Whitaker Quarry in 1947, the paleontological work at Ghost Ranch has been driven by a scientific and secular imperative apart from the beliefs of the Presbyterian Church. More importantly, the paleontological discoveries at Ghost have been interpreted by paleontologists throughout the world, especially in the work of Edwin H. Colbert, who worked at the Whitaker Quarry, but was employed by the American Museum of Natural History in New York.

Developmental history/additional historic context information

Paleontological exploration at Ghost Ranch dates back to 1881, when fossil hunter David Baldwin collected several handfuls of small petrified bones from sites near Ghost Ranch and a site near Gallina at the base of the Piedra Lumbre cliffs. Baldwin mailed his fossil collection to paleontologist Edward Drinker Cope in Philadelphia, who, in 1887, used some of them as the basis for a new small carnivorous dinosaur that he named Coelophysis bauri. The name, Coelophysis, means "hollow form," referring to the lightly constructed hollow bones that helped the dinosaur remain nimble and quick. The honorific was named for German morphologist Georg Baur. Cope had been through the area in the late 1870s and had urged Baldwin to collect near the cliffs. But after Baldwin's foray and Cope's publication, there was little reaction in the scientific community.

In 1928, University of California-Berkeley paleontologist Charles L. Camp, an expert in living and fossil reptiles, began exploring the cliff bases to the west of the ranch buildings in search of Coelophyis bauri. He soon discovered an exposed field of skeletons of large fossil reptiles. One was a large armored plant-eater that Cope had previously named Typothorax, based on fossil bones collected elsewhere in New Mexico. Camp also found several skulls and skeletons of large, crocodile-like reptiles called phytosaurs. Camp shipped 800 pounds of bones to Berkeley. He returned to what he called the Canjilon Quarry, named for the nearby Canjilon Creek where they camped. In 1930, 1933, and 1934, he excavated a large collection of fossil skeletons. After that, Camp pursued other interests, but the Canjilon Quarry area was not depleted and specimens continue to be discovered and excavated. Many of them are partly complete and articulated, including numerous skeletons of long-snouted, crocodile-like phytosaurs, partial skeletons of the armored reptiles known as aetosaurs, and a few bones of ancient amphibians.

| Whitaker Dinosaur Quarry | |
|--------------------------|--|
| Name of Property | |

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In 1947, paleontologist Edwin H. Colbert, of the American Museum of Natural History in New York, stopped by Ghost Ranch with two colleagues on a trip to the Petrified Forest in Arizona. Knowing of Camp and his discoveries, Colbert wanted to see the fossil beds at Ghost Ranch. The crew soon departed, but returned a few days later to spend a week prospecting for fossils along the canyons north and east of the ranch buildings. After a few days they collected a phytosaur skull.

On June 22, 1947, they met for lunch at their jeep, where George Whitaker presented them with a handful of small bones that Colbert immediately recognized as those of Coelophysis. Edwin Colbert, following protocol, named the quarry after its discoverer, George Whitaker. The crew returned to the Whitaker site, and were amazed to find a motherlode of fossils. The more they cleared away overlying sediment, the more bones they found. And not isolated bones, but complete skeletons, dozens, then hundreds, and eventually thousands of skeletons. Colbert contacted his colleague and supervisor, George Gaylord Simpson, who was conducting fieldwork near the David Baldwin site, to ask how to proceed. Simpson rushed to the site, and after a quick inspection, abandoned plans for the Petrified Forest. The men wired New York for more help, money, and supplies. "One of our problems at Ghost Ranch quarry", according to Colbert, "was an 'embarrassment of riches'— something that we could hardly complain about, but a problem nonetheless."

Fossil vertebrate discoveries are usually little more than an isolated bone or fragment, a few associated bones, or occasionally a complete, or nearly complete skeleton. The Whitaker Quarry posed a challenge because the skeletons were stacked one upon another with no breaks. They found that one bone could not be removed without moving several others, and complete skeletons were intertwined like vines of ivy. Colbert determined that the fossils would have to be removed in large blocks; but even so, every cut fragmented hundreds of bones in the block. By the end of the summer 1947, seven blocks had been mapped and removed, the largest measuring eight by four by three feet and weighing more than two tons before its plaster jacket was applied. Six additional blocks were removed in 1948. Blocks that were excavated from the quarry have been distributed to museums in the United States and throughout the world.

The discovery was soon announced to the public, and it received worldwide coverage, including the front page of the *New York Times*, a feature article in *Life* magazine, and Colbert's own account in his museum's magazine *Natural History*. The ranch was deluged with reporters, writers, photographers, and curiosity-seekers, who came to see one of the most spectacular fossil discoveries of the century. Georgia O'Keeffe, a resident at Ghost Ranch, became a frequent visitor to the quarry and a friend of Edwin Colbert. Colbert suspected that they connected over a mutual fascination with bones.

Coelophysis appeared early on the scene, but it wasn't as basal as its direct predecessors that predated it by 20 to 30 million years. These middle Triassic reptiles, dating from about 230 million years ago, included such important genera as Eoraptor, Herrerasaurus, and

⁷ Colbert, 51.

| Whitaker Dinosaur Quarry | Rio Arriba, New Mexico |
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Staurikosaurus. Paleontologists believe these were the first true dinosaurs, only recently evolved from their archosaur predecessors.

During the succeeding decades, little paleontological work was done at Ghost Ranch, but in 1980, Edwin Colbert persuaded the ranch to open the quarry for further excavation. In 1981 and 1982, field teams led by David S. Berman and Quarry Chief Greg McDonald of the Carnegie Museum of Natural History in Pittsburgh excavated a series of blocks like those removed in the 1940s. All but one made their way to prominent natural history museums in the U.S., Canada, and Australia. The final block was removed in 1985 to become the centerpiece of the Ruth Hall Museum of Paleontology at Ghost Ranch. In total, thirty specimen blocks were removed from the Whitaker Quarry. Edwin Colbert excavated 13 blocks from the quarry in 1947-1948. The Carnegie Museum excavations removed 16 blocks, and one block was removed in 1985. The exposed face of the quarry has been buried to protect the remaining fossils, but it could be reopened in future if it becomes warranted. Ghost Ranch offers visitors self-guided hikes to the Whitaker Quarry.

In 1976, the Coelophysis Quarry was named a National Natural Landmark, a designation that "recognizes the best examples of biological and geological features in both public and private ownership." In 1981, Coelophysis was named the state fossil of New Mexico.

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| Whitaker Dinosaur Quarry | Rio Arriba, New Mexico |
| Name of Property | County and State |
| 9. Major Bibliographical References | |
| Bibliography (Cite the books, articles, and other sources u | sed in preparing this form.) |
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| "The Search for Fossils in Northern New Mexico." 209-212. | El Palacio 54 (September 1947): |
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| "Dinosaurs Unearthed: Diggers unearth a small species that I magazine 23 (August 11, 1947): 49-52. | ived 200 million years ago." Life |
| "Museum Finds Dinosaurs of 200 Million Years Ago: Skelete monster are only three or four feet in length—discovered in June 14, 1947. | • |
| General works on the discoveries at Whitaker Quarry | |
| Colbert, Edwin H. <i>The Little Dinosaurs of Ghost Ranch</i> . New Press, 1995. | w York: Columbia University |
| The Triassic Dinosaur Coelophysis. Bulletin Series Northern Arizona, 1989. | s 57. Flagstaff, AZ: Museum of |

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_____designated a National Historic Landmark

| Whitaker Dinosaur Quarry | Rio Arriba, New Mexico |
|---|---------------------------------------|
| Name of Property | County and State |
| Gillette, D. D., J. L. Gillette, and E. H. Colbert, "Comments on the proposed Eneotype for Coelophysis bauri" <i>Bulletin of Zoological Nomenclature</i> 50 (1 | _ |
| "Ghost Ranch and Vicinity." New Mexico Bureau of Geology and Mineral Rehttps://geoinfo.nmt.edu/tour/landmarks/ghost_ranch/home.html | esources, |
| Heckert, Lucas S., H. Rinehart, L. Spielmann, and J. Jasinski. "Vertebrate fau and age of the Whitaker Quarry (Ghost Ranch, New Mexico), the richest Udinosaur quarry in the world." <i>Journal of Vertebrate Paleontology</i> 29 No. Abstracts of papers. Sixty-ninth annual meeting of the Society of Vertebrate (September 2009): 32A, 137A. | Jpper Triassic 3, Supplement. |
| Huene, F. von. "On reptiles of the New Mexican Trias in the Cope collection. American Museum of Natural History 34 (1915): 485–507. | " Bulletin of the |
| Poling-Kemps, Lesley. Ghost Ranch. Tucson: University of Arizona Press, 2 | 2005. |
| Rinehart, Larry F., Spencer G. Lucas, Andrew B. Heckert, Justin A. Spielmann Celeskey. "The Paleobiology of Coelophysis bauri (Cope) from the Upper (Apachean) Whitaker quarry, New Mexico, with detailed analysis of a sing Bulletin 45 New Mexico Museum of Natural History and Science. (January | r Triassic gle quarry block." |
| Siemers, Charles T. "Ghost Ranch." In New Mexico Geological Society Silve Guidebook Ghost Ranch (Central-Northern New Mexico). Socorro, NM: Geological Society, 1974, 174-178. | · · · · · · · · · · · · · · · · · · · |
| Weishampel, David B. "Ornithischia." In <i>The Dinosauria</i> . Berkley: University Press, 1990, 167-168. | ity of California |
| Previous documentation on file (NPS): | |
| preliminary determination of individual listing (36 CFR 67) has been previously listed in the National Register | requested |
| previously determined eligible by the National Register | |

| | Rio Arrib | a, New Mexico |
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| ne of Property | County and | l State |
| Primary location of additional | l data: | |
| _X State Historic Preservation | n Office | |
| Other State agency | | |
| Federal agency | | |
| Local government | | |
| University | | |
| Other | | |
| | | |
| · | mber (if assigned): | |
| 10. Geographical Data | | |
| 10. Geographical Data | | |
| Acreage of Property Approx | imately one acre | |
| | | |
| Acreage of Property Approx | atitude/longitude coordinates tes (decimal degrees) | |
| Acreage of Property Approximate Use either the UTM system or la Latitude/Longitude Coordinate Datum if other than WGS84: | atitude/longitude coordinates tes (decimal degrees) | |
| Acreage of Property Approximate Use either the UTM system or la Latitude/Longitude Coordinate Datum if other than WGS84: (enter coordinates to 6 decimal property of the p | tes (decimal degrees) places) | |

Boundary Justification (Explain why the boundaries were selected.)

corresponding with the point of latitude and longitude in Section 10.

The National Register boundary includes the intact and historic Whitaker Dinosaur Quarry.

| Whitaker Dinosaur Quarry | Rio Arriba, New Mexico |
|--------------------------|------------------------|
| Name of Property | County and State |

11. Form By

name/title: Kevin Padian, with assistance from Charles L. Jaynes, Cheryl Muceus,

Glenna Dean, Cassie Beeton, Alex Downs Sterling, Nesbitt, and Randy Irmis

organization: Kevin Padian, Professor of Paleontology at University of California-Berkeley

and Curator of Paleontology, UC Museum of Paleontology

street & number: 2513 La Charles Drive, N.E.

city or town: Albuquerque state: NM zip code: 87112

e-mail: c_l_jaynes@msn.com__

date: March 1, 2018_

telephone: N/A

State Historic Preservation Office

name/title: Steven Moffson, State and National Register Coordinator organization: New Mexico Historic Preservation Division_____street & number: 407 Galisteo Street, Suite 236 city or town: Santa Fe state: New Mexico zip: 87501 telephone: 505.476.04444 date: October 31, 2017

Additional Documentation

Submit the following items with the completed form:

- Maps: A USGS map or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- Additional items: (Check with the SHPO, TPO, or FPO for any additional items.) Figure Log

Figure 1. Telegram from Dr. Edwin Colbert to Carl Sorenson at the American Museum of Natural History in New York announcing discoveries at Whitaker Quarry, June 30, 1947.

Figure Edwin Colbert (right) and George Whitaker at Whitaker Quarry, 1947

Figure 2. Whitaker Quarry, 1947.

Name of Property

- Figure 3. Camp at dinosaur quarry, 1947.
- Figure 4. American Museum of Natural History excavation, tripod for lifting heavy quarry blocks, Whitaker Quarry, in 1947.
- Figure 5. American Museum of Natural History excavation, paleontologist excavating dinosaur bones, Whitaker Quarry, 1947.
- Figure 6. Edwin H. Colbert Field Notes, Whitaker Quarry, n.d.
- Figure 7. American Museum of Natural History excavation, forming a plaster cast, 1947.
- Figure 8. American Museum of Natural History excavation, plastered specimen block, 1947.
- Figure 9. American Museum of Natural History excavation, paleontologists prepare specimen block for transport, 1947.
- Figure 10. American Museum of Natural History excavation, loading specimen blocks for transport to the American Museum of Natural History, 1947.
- Figure 11. Carnegie Museum excavation Whitaker Quarry, 1981-1982.
- Figure 12. Carnegie Museum excavation Whitaker Quarry, 1981-1982.
- Figure 13. Carnegie Museum excavation, drilling at Whitaker Quarry, 1981-1982.
- Figure 14. Carnegie Museum excavation, removing specimen blocks, 1981-1982.
- Figure 15. Carnegie Museum excavation, plastering specimen blocks, 1981-1982.
- Figure 16. Carnegie Museum excavation, securing specimen blocks, 1981-1982.
- Figure 17. Carnegie Museum excavation, completed specimen block, 1981-1982.
- Figure 18. Carnegie Museum excavation, transporting specimen block, 1981-1982.
- Figure 19. Map of Quarry Blocks
- Figure 20. Coelophysis specimen block at American Museum of Natural History in New York.
- Figure 21. Coelophysis fossilized skeleton at Ghost Ranch.

| Whitaker Dinosaur Quarry | Rio Arriba, New Mexico |
|--------------------------|------------------------|
| Name of Property | County and State |

Figure 22. The elongated pelvic bones of Saurischians, or "lizard-hipped" dinosaurs, provded support for the strong, heavy muscles of the hind limb. The large Ornithischian hip bones supported grazing for plants.

Figure 23. Recreation of Coelophysis.

Figure 24. Evolution of theropod dinosaurs.

Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Whitaker Dinosaur Quarry

<u>City or Vicinity</u>: Abiquiu vicinity

County: Rio Arriba State: New Mexico

Photographer: Steven Moffson

Date Photographed:

Description of Photograph(s) and number, include description of view indicating direction of camera:

- 1 of 9. Entrance to Ghost Ranch, photographer facing northeast.
- 2 of 9. Meadow and Ghost Ranch Conference Center, photographer facing northeast.
- 3 of 9. Ghost Ranch Conference Center and Kitchen Mesa (background), photographer facing northeast.
- 4 of 9. Whitaker Dinosaur Quarry (left) and Kitchen Mesa (right), photographer facing northeast.

| Whitaker Dinosaur Quarry | Rio Arriba, New Mexico |
|--------------------------|------------------------|
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- 5 of 9. Whitaker Dinosaur Quarry seen above the steps, photographer facing northeast.
- 6 of 9. Whitaker Dinosaur Quarry on slope below rock ledge, photographer facing northeast.
- 7 of 9. Whitaker Dinosaur Quarry viewed from Kitchen Mesa, photographer facing southwest.
- 8 of 9. Ruth Hall Museum of Paleontology at Ghost Ranch, photographer facing west.
- 9 of 9. Ghost Ranch Quarry Block in Ruth Hall Museum of Anthropology. , photographer facing north.

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

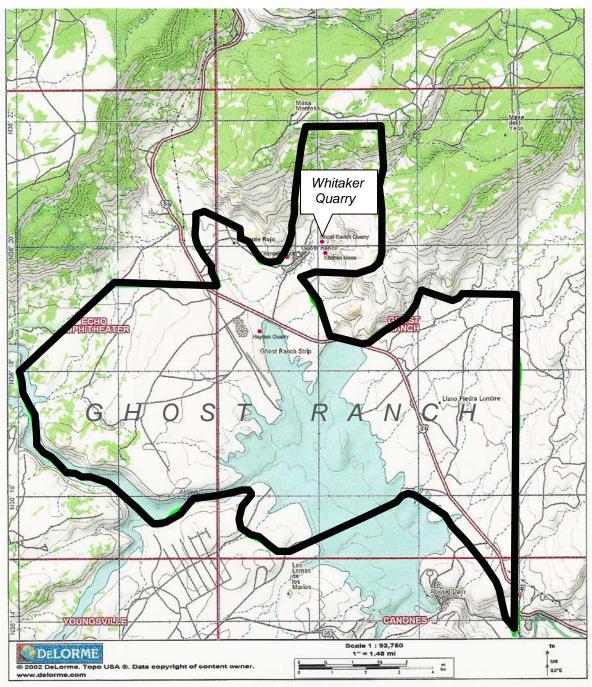
Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments

Name of Property

Rio Arriba, New Mexico

County and State

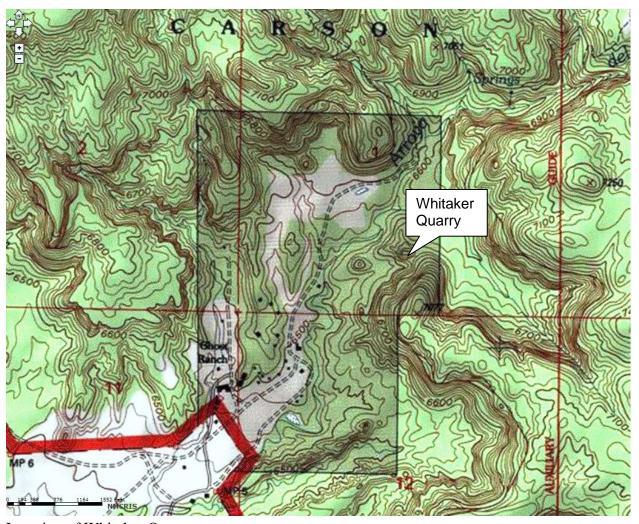
regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.



Location Map with boundary of Ghost Ranch and the location of Whitaker Quarry Abiquiu vicinity, Rio Arriba County, New Mexico

Name of Property

Rio Arriba, New Mexico County and State



Location of Whitaker Quarry Rio Arriba County, New Mexico

Name of Property

Rio Arriba, New Mexico County and State



Location Map ot Whitaker Dinosaur Quarry Rio Arriba County, New Mexico

National Register Boundary



Scale: 1inch = approximately 250 feet



Name of Property

Rio Arriba, New Mexico
County and State

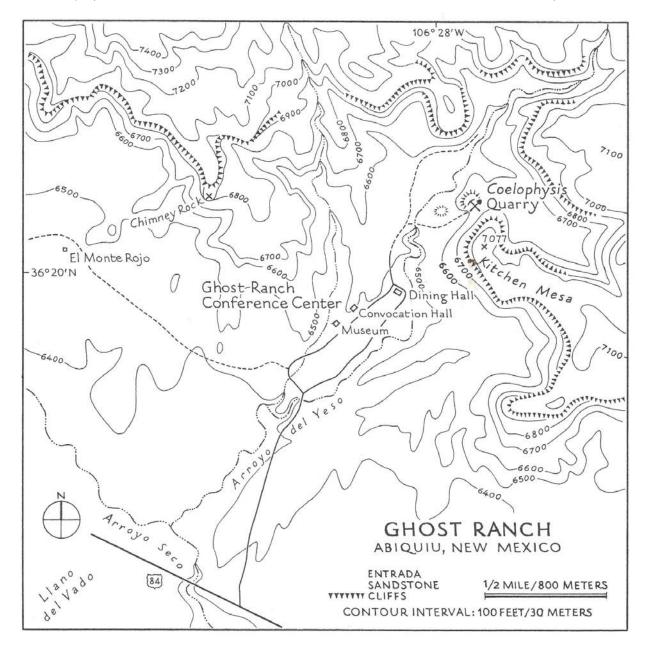


FIGURE 5 The location of Ghost Ranch and the Ghost Ranch dinosaur quarry along Arroyo del Yeso, New Mexico. Figures indicate altitude in feet above sea level. Adapted from the U.S. Geological Survey topographic sheet, Ghost Ranch Quadrangle, 1953, 7.5 Minute Series. Cartography by George Colbert.

Location Map of Whitaker (Coelophysis) Quarry

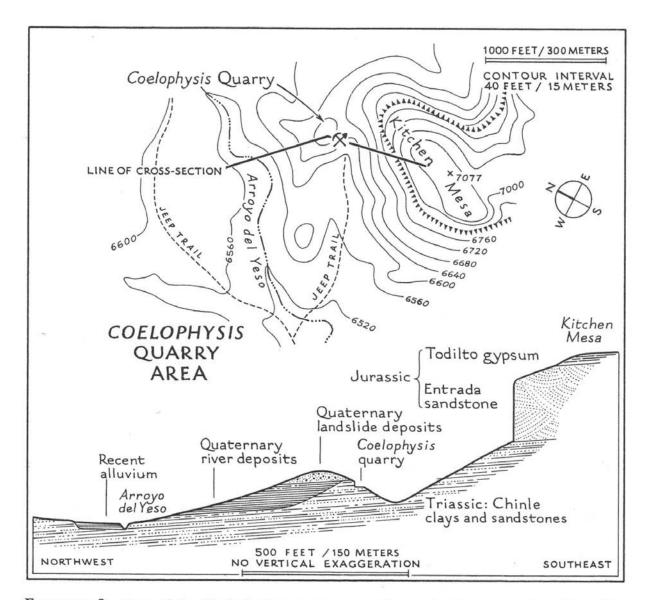


FIGURE 9 Map of the *Coelophysis* quarry area and a geologic cross section along the line indicated. The cross section is based in part on recent stratigraphic studies by Barry Goldstein. Cartography by George Colbert.

Location Map of Whitaker (Coelophysis) Quarry

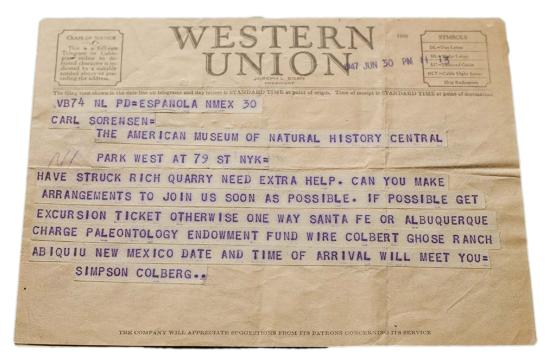


Figure 1. Telegram from Dr. Edwin Colbert to Carl Sorenson at the American Museum of Natural History in New York announcing discoveries at Whitaker Quarry, June 30, 1947.



Edwin Colbert (right) and George Whitaker at Whitaker Quarry, 1947.

County and State

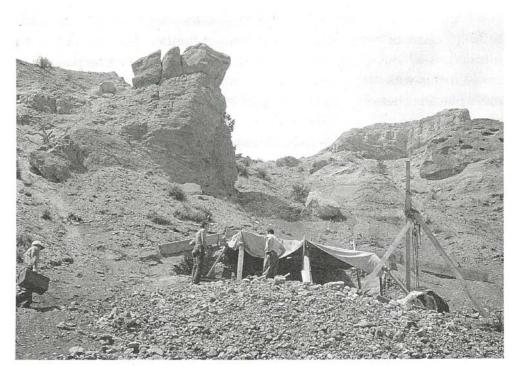


Figure 2. Camp at Whitaker Quarry.



Figure 3. Whitaker Quarry, 1947.

Name of Property



Figure 4. American Museum of Natural History excavation, tripod for lifting heavy quarry blocks, Whitaker Quarry, in 1947.



Figure 5. American Museum of Natural History excavation, Whitaker Quarry, 1947.

Name of Property

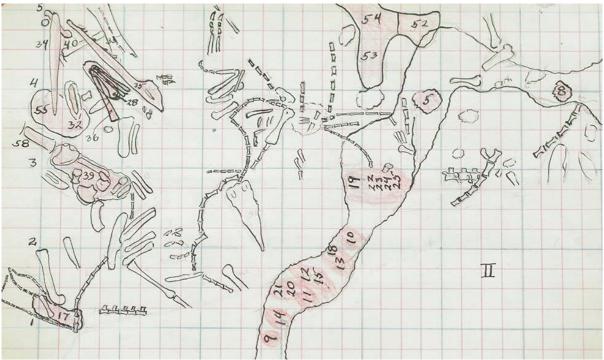


Figure 6. Edwin H. Colbert Field Notes, Whitaker Quarry, n.d.



Figure 7. American Museum of Natural History excavation, forming a plaster jacket, 1947.



Figure 8. American Museum of Natural History excavation, plastered specimen block, 1947.



Figure 9. American Museum of Natural History excavation, paleontologists prepare specimen block for transport, 1947.



Figure 10. American Museum of Natural History excavation, loading specimen blocks for transport to the American Museum of Natural History, 1947.



Figure 11. Carnegie Museum excavation, Whitaker Quarry, 1981-1982.



Figure 12. Carnegie Museum excavation, Whitaker Quarry, 1981-1982.



Figure 13. Carnegie Museum excavation, drilling at Whitaker Quarry, 1981-1982.

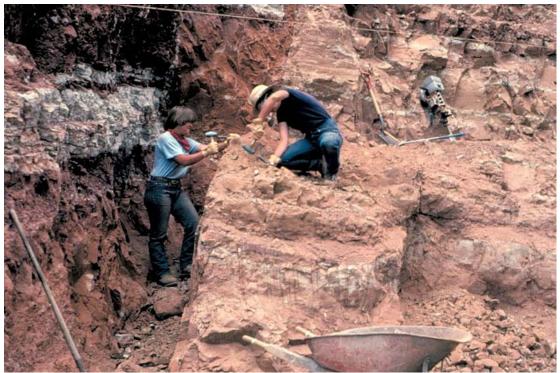


Figure 14. Carnegie Museum excavation, removing specimen blocks, 1981-1982.



Figure 15. Carnegie Museum excavation, plastering specimen blocks, 1981-1982.



Figure 16. Carnegie Museum excavation, securing specimen blocks, 1981-1982.



Figure 17. Carnegie Museum excavation, completed specimen block, 1981-1982.

Name of Property

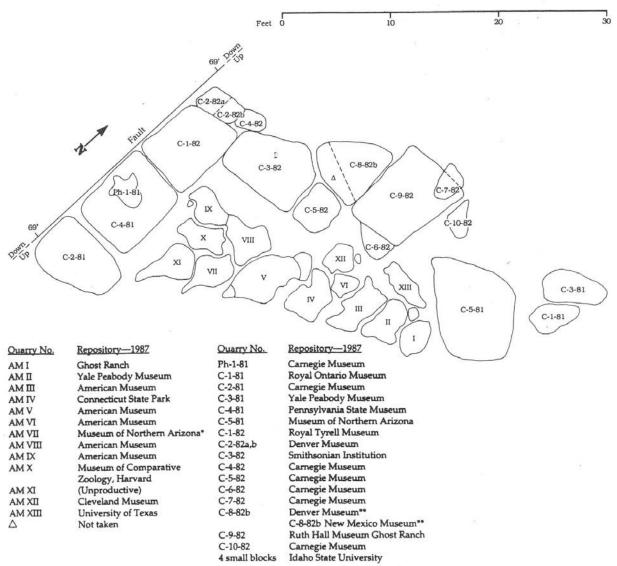
Rio Arriba, New Mexico County and State



Figure 18. Carnegie Museum excavation, transporting specimen block, 1981-1982.

Name of Property

Rio Arriba, New Mexico County and State



^{*}Originally at University of New Mexico; fossils transferred to the Museum of Northern Arizona.

FIGURE 17 Map of the Ghost Ranch blocks, collected in 1947, 1948, 1981, 1982, and 1985. Their present locations are indicated. Some of the blocks no longer exist as blocks, but the skeletons and bones discovered within them have been removed.

Figure 19. Map of Quarry Blocks

^{**}Block C-8-82b was divided, the two halves going to Denver and Albuquerque.



Figure 20. Coelophysis specimen block at American Museum of Natural History in New York.

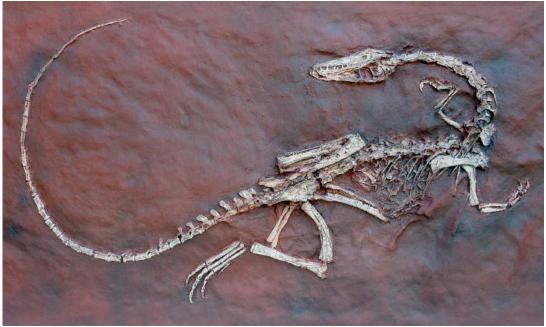


Figure 21. Coelophysis fossilized skeleton at Ghost Ranch.

Name of Property

Rio Arriba, New Mexico County and State

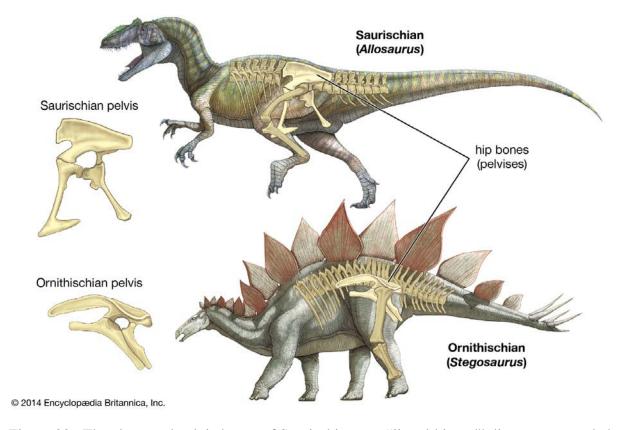


Figure 22. The elongated pelvic bones of Saurischians, or "lizard-hipped" dinosaurs, provded support for the strong, heavy muscles of the hind limb. The large Ornithischian hip bones supported grazing for plants.

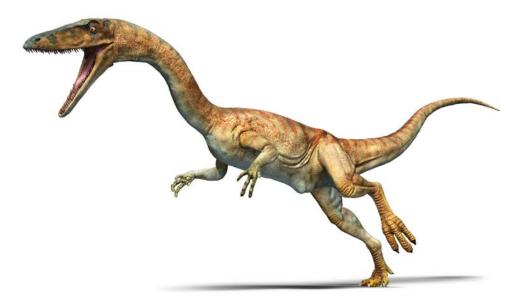
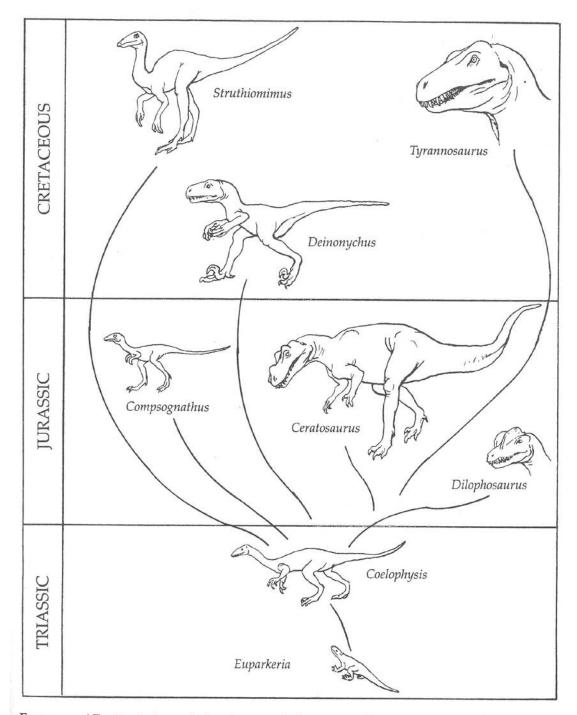


Figure 23. Recreation of Coelophysis.



 ${\tt Figure\,47}\,$ Evolution of the theropod dinosaurs. To approximate relative scale. Drawing by Margaret Colbert.

Figure 24. Evolution of theropod dinosaurs.

Name of Property

Rio Arriba, New Mexico
County and State

Photographs



1. Entrance to Ghost Ranch, photogrpaher facing northeast.



2. Meadow and Ghost Ranch Conference Center, photogrpaher facing northeast.



3. Ghost Ranch Conference Center and Kitchen Mesa (background), photogrpaher facing northeast.



4. Whitaker Dinosaur Quarry (left) and Kitchen Mesa (right), photogrpaher facing northeast.



5. Whitaker Dinosaur Quarry seen above the steps, photographer facing northeast.



6. Whitaker Dinosaur Quarry on slope below rock ledge, photographer facing northeast.

County and State



7. Whitaker Dinosaur Quarry viewed from Kitchen Mesa, photographer facing southwest.



8. Ruth Hall Museum of Paleontology at Ghost Ranch, photographer facing west.

Name of Property

Rio Arriba, New Mexico County and State



9. Ghost Ranch Quarry Block in Ruth Hall Museum of Anthropology.



















UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION/RETURN SHEET

| Requested Action: | Nomination | | |
|--|--------------------------|--|--|
| Property Name: | Whitaker Dinosaur Quarry | | |
| Multiple Name: | | | |
| State & County: | NEW MEXICO, R | io Arriba | |
| Date Rece 9/4/201 | | Pending List: Date of 16th Day: /1/2018 10/16/2018 | Date of 45th Day: Date of Weekly List: 10/19/2018 |
| Reference number: | SG100003030 | | |
| Nominator: State | | | |
| Reason For Review | | | 1 |
| Арреа | ıl | PDIL | Text/Data Issue |
| SHPO Request | | Landscape | Photo |
| Waiver | | X National | Map/Boundary |
| Resubmission | | Mobile Resource | Period |
| X Other | | TCP | Less than 50 years |
| | | CLG | |
| X Accept | Return | Reject 10 / | 19/2018 Date |
| Comments: B and D in the arr paleontologist Ed well-preserved fo site. The discover twentieth century | | ea of Science. The quarry site is as win H. Colbert who in 1947 documes silized skeletons of a small Triassry and Colbert's subsequent study study of dinosaurs, reshaping subspend fossil remains and remains a p | ance under National Register Criteria A, isociated with respected American ented the discovery of over a thousand ic dinosaur called Coelophysis at this of the remains significantly impacted the sequent science and research. The Site totential source of additional important |
| Recommendation/ Accept National F Criteria | | Register Criteria A, B & D. (Nationa | |
| Reviewer Paul L | usignan | Discipline | Historian |
| Telephone (202)354-2229 | | Date | 10/19/2018 |
| DOCUMENTATION | l: see attached | comments : No see attached S | SLR : Yes |

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.



STATE OF NEW MEXICO

DEPARTMENT OF CULTURAL AFFAIRS HISTORIC PRESERVATION DIVISION

BATAAN MEMORIAL BUILDING 407 GALISTEO STREET, SUITE 236 SANTA FE, NEW MEXICO 87501 PHONE (505) 827-6320 FAX (505) 827-6338

The enclosed disk contains the true and correct copy of the nomination Whitaker Dinosaur Quarry in



August 17, 2018

Susana Martinez

Governor

Joy Beasley National Register of Historic Places Mail Stop 7228 1849 C St, NW Washington, D.C. 20240

Dear Ms. Beasley:

| Rio Arriba | County, New Mexico to the National Register of Historic Places. | | | |
|------------|---|--|--|--|
| X | Disk of National Register of Historic Places nomination form and maps as a pdf | | | |
| X | Disk with digital photo images | | | |
| X | Physical signature page | | | |
| | Sketch map(s)/attachment(s) in hard copy | | | |
| | Correspondence | | | |
| | Other: | | | |
| COMMENTS: | | | | |
| - | This property has been certified under 36 CFR 67 | | | |
| | The enclosed owner objection(s) do do not constitute a majority of property owners. | | | |
| | Special considerations | | | |

XAA

Steven Moffson

Sincerely,

State and National Register Coordinator

Enclosures