

**Fossils in Native American Lands
Whose Bones, Whose Story?**

Fossil Appropriations Past and Present

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Who owns the fossilized remains of human ancestors or extinct animals? Who has the right to tell their stories? Some of you may recall the controversy in 1992, when federal agents seized a *Tyrannosaurus rex* dinosaur excavated from Native American land in South Dakota. After 5 years of complex court decisions, this largest and most complete *T. rex* specimen (at the time) was sold at auction to the highest bidder.

Another famous case is Otzi, the 5,000-year-old Ice Man discovered in a melting glacier in the Alps between Italy and Austria in 1991. International legal battles are still going on today, 16 years later, over who has the right to own, study, and profit from Otzi.

Kennewick Man, a 9,300-year-old human discovered on the banks of the Columbia River 11 years ago (1996), generated fierce battles among scientists and Native Americans, while the courts decided who should possess and assign meaning to his remains.

And just this summer (2007), there was strong criticism from scientists and Ethiopians over the decision by the government of Ethiopia to send the fragile fossil skeleton of Lucy, the celebrated 3.2 million-year-old human ancestor, on a lucrative tour to museums in Houston and other US cities. (1)

These recent incidents may seem uniquely modern. But the two related issues at stake--Who controls extraordinary prehistoric remains and Who interprets their meaning?--have ancient antecedents.

The practice of taking valuable fossils from conquered lands or weaker people is not new, and the powerful emotions evoked by such acquisitions are not uniquely modern. Contention arises whenever rare and valuable geological objects come to light. To help ground such struggles in a historical context, I've gathered a few ancient and modern examples to show that large vertebrate fossils have long

been tied to cultural identities and power inequalities. Those same links persist in modern-day fossil disputes in North America, in clashes between authorities and the people whose land contains geological objects of great scientific and monetary value.

In ancient Greece and Rome, enormous fossil bones were transported long distances at great expense for political gain and to enrich temples and imperial museums. Intense feelings arose over the fossils' ownership and the authority to give meaning to such marvels. In antiquity, the huge bones, teeth, and tusks of mastodons, mammoths, and other large extinct animals were identified as the relics of giant beings from mythology. These remarkable remains were collected and placed in temples, where the Greeks and Romans revered the objects as the relics of giant heroes and ancestors. The fossils were considered sacred treasures and they were invested with cultural pride and national identity.

The earliest documented case of a valuable fossil appropriated by a stronger state took place in 560 BC. According to the Greek historian Herodotus, the city of Sparta stole a giant skeleton they identified as the giant hero Orestes. The skeleton (most likely that of a mastodon or mammoth) had been discovered in Tegea, a town that

Sparta sought to dominate. Spartan soldiers absconded with the skeleton and enshrined the bones in their own city. Possession of Orestes' remains was a brilliant propaganda move and the power that Sparta reaped from the fossil coup eventually led to the Peloponnesian War.

The city of Athens responded to Sparta's move by searching for an impressive fossil that they could claim as Athens' own culture hero. The Athenians sailed to the island of Skyros to look for the bones of their hero Theseus. The islanders refused to allow the Athenians to excavate there. So the Athenian general Kimon captured Skyros and ordered his men to dig up an enormous skeleton that was seen poking out of a mound (Skyros contains rich fossil deposits of large extinct mammals). Kimon shipped the heroic bones back to Athens, where they were placed a magnificent tomb near the Acropolis.

Meanwhile, the town of Tegea, which had been looted earlier by Sparta, discovered another legendary fossil. In their temple the Tegeans displayed an immense mammoth tusk, which they believed came from the gigantic Caledonian Boar of Greek myth. In 31 BC, the Roman Emperor Augustus occupied Greece. He plundered the great tusk from the

temple at Tegea, and took the trophy fossil to Rome for his own display in the world's first paleontological museum. (2)

Many centuries later, in 1794, another conquering emperor, Napoleon Bonaparte, looted a huge fossil skull that was the prized possession of Maastricht, in the Netherlands. The mysterious monster had been unearthed by Dutch quarrymen in 1770. The "Monster" was later identified in Paris as a Mosasaur, a marine reptile from the era of dinosaurs. Today that skull is proudly displayed in the Museum of Natural History in Paris. The Dutch repeatedly request the return of this stolen national treasure claiming that it is intrinsic to Dutch national identity. Their petition is always refused. France maintains that scientific studies of the Maastricht Monster in Paris transformed the skeleton into their own cultural icon. Because the fossil figured in the theories of the great French naturalist Georges Cuvier, it is now considered a French cultural "artifact." (3)

The French claim is based not only their rightful possession (they claim that Napoleon paid for the skull with bottles of French wine) but also on their ground-breaking scientific curation of the fossil. In other words, the French claim that their story about the Monster of Maastricht should prevail and justifies their ownership.

Since classical antiquity, the pattern has not changed: after local people discover a spectacular fossil or other geological object, outsiders arrive to remove the object for “safekeeping” and “proper” interpretation, as defined by outside authorities.

That’s what happened in China in the 1920s. When westerner paleontologists first realized that “dragon bones” collected for traditional Chinese medicine were really dinosaur fossils, there was a bone rush in the Gobi Desert. The extensive American excavations of “dragon bones” angered the Chinese. Not only were tons of dinosaur fossils shipped to the American Museum of Natural History in New York, but the museum made rich profits by selling dinosaur eggs for \$5000 a piece. The Chinese banned western paleontologists for the next 80 years, until 1996. (4)

Between 1850 and 1920, European and American fossil hunters descended on Greece and spirited away more than 50,000 vertebrate fossils for museums and private collectors. In exchange, the famous American paleontologist Barnum Brown offered complimentary Kodak cameras to Greek officials. To protect their precious paleontological resources, the Greek government declared (in about 1920)

that fossils were part of their national treasure along with classical antiquities, and forbid their removal. (5)

Recently, in 2001, in Morelos, Mexico, villagers who discovered mammoth bones in a local cave refused to turn the fossils over to government and museum officials from Mexico City. The townspeople complained that the outside officials had long been removing the valuable mammoth fossils from the region. Instead, the villagers guarded their display of the huge bones in their plaza and expressed the hope that a museum could be built in their town for the fossils. (6)

In the United States, appropriations of fossil resources from Native American lands began with the emergence of modern scientific paleontology. Since the 18th century, thousands of dinosaur and other specimens were collected from lands occupied by indigenous peoples without permission or compensation. Millions of dollars worth of fossils have been removed from reservations by federal agencies, museums, and academic scientists, who commonly denied or rejected local ownership and cultural traditions associated with the fossils.

Today, conflicts over fossils from Native lands continue to arise in the fossil-rich western US. Technically, Native Americans have rights to reservation resources, but those rights are not always acknowledged. I don't have time to go into the legal issues today, because the federal laws and the individual treaties regarding fossils on Indian and public lands are extremely complex, and new legislation is being debated right now in Congress. (7)

The most notorious recent example of disputed ownership, value, and meaning of a dinosaur fossil was the US government's seizure of the famous *T. rex* named Sue, excavated by non-Indian fossil-hunters on Indian land in 1992. Because federal treaty law does not allow Native Americans to sell property held in trust for them by the government, the custody of the dinosaur had to be decided in a series of very complicated court decisions, which were bitterly criticized by all sides. In the end, the fabulous fossil was auctioned by Sothebys in 1997. In just 10 minutes of bidding, the price reached \$8.3 million, paid by the Field Museum of Chicago with the help of McDonalds.

This event spawned a soaring market for spectacular fossils among rich private collectors, leading to increased poaching from reservations and public lands. The auction of the *T. rex*

Sue still arouses anger and cynicism among all the parties involved. (8)

The case of the rare double-crested *Dilophosaurus* dinosaur taken from the Navajo Reservation 65 years ago, is another bitter issue. In 1942, after a Navajo man, Jesse Williams, discovered this nearly complete fossil, Sam Welles, the famous bone-hunter for University of California, Berkeley, arrived. Welles dug up the fossil in a record 10 days and took it to Berkeley, where it remains as a prize specimen in the museum's collection. The Navajo tribe has made formal requests for the return of this important fossil (the *Dilophosaurus* was featured in the film *Jurassic Park*). The request was last denied in 1998, even though the tribe had built a multimillion dollar museum where the fossil could be a main attraction. (9)

Another fossil crisis erupted 5 yrs ago (2002) between the Sioux and the Badlands National Park in South Dakota. In a controversial move, the National Park had doubled its holdings in 1976 by taking over land from the Pine Ridge Reservation. The land, known to the Sioux as the Stronghold, is sacred and historic for the tribe because it contains the graves of Ghost Dancers massacred at Wounded Knee by US troops in 1890. It also contains richest

deposits in the world of huge Miocene *Titanotheriums*, traditionally known to the Sioux as “Thunder Beasts.”

In 2002, the National Park Service paleontologists announced a plan to dig up the fossils for “scientific safekeeping” in museums in Colorado and South Dakota. The Sioux Tribe of Pine Ridge, legally the co-administrators of Badlands National Park, protested. But the NPS dismissed the protests with some public statements that were patently false. The result was an armed stand-off in the Stronghold between Native Americans and NPS officials that lasted for 4 years.

The issues I’ve mentioned have led some to wonder if the 1990 law known as the Native American Graves Protection Act (NAGPRA) might apply to fossils. NAGPRA enables tribes to recover human remains and cultural artifacts from federally funded museums. As written, the law does not cover natural resources. Should valuable fossils taken from reservations be considered cultural items, along with artifacts?

Technically, only fossils that have been worked or altered, or included in medicine bundles, could fall under this legislation, although some legal scholars propose that

NAGPRA could be a model for legal repatriation of fossils. That move would be similar to the decision nearly a century ago, by the Greek government, to protect fossils with laws originally designed for cultural artifacts.

There is another type of rock that is eagerly sought by museums and collectors, another kind of rock that can have cultural associations. Consider the Willamette Meteorite, the showpiece of the American Museum of Natural History's new Earth and Space Center. It is not a fossil but a huge chunk of metal from outer space, the largest meteorite (15.5 tons) ever found in the US, the 6th biggest in the world. Conflicts over the huge meteor's stewardship and interpretation arose as soon as it came to the attention of non-Indians in 1902 in Oregon.

In the first legal case over its custody in 1905, Clackamas Indian elders were called to the stand to testify about the ancient cultural meanings of the space rock, traditionally known to the Clackamas as "The Heavenly Visitor." The elders' testimony shows that before whites arrived in Oregon, the Indians had recognized some of the same features used by modern scientists to distinguish meteors from earth rocks.

The American Museum of Natural History (AMNH) won ownership in 1906. In 1999, the Clackamas tribe reclaimed ownership of the meteor. A satisfactory compromise was reached: the AMNH keeps the Willamette Meteorite in NY, but allows the tribe to commune with the rock in a private ceremony each year.

But conflict with the tribe flared up again in September 2007, when the AMNH decided to hack off a 30 pound chunk, said to be worth \$1 million, in a swap with a private collector. The chunk went on the auction block at Bonhams and Butterfields 6 days ago (October 28, 2007). (11)

That move unfortunately threatened to undermine the compromise achieved in 1999. Well, all the cases I've mentioned so far are pretty negative. But I've gathered a few more positive examples of cooperation and communication between traditional cultures and authorities that suggest ways of resolving disputes over geological resources.

Extinct fossil creatures from the Agate Fossil Beds National Monument, Nebraska, now grace every major natural history museum in the US. The fossils were unearthed during the Indian Wars, from 1870s on. In the 1990s, the National Park

Service superintendent at Agate, Ruthann Knudsen, actively sought out Native American traditions about the extraordinary fossils at the site. She consulted with 31 different tribes that had cultural ties to the fossils. The local Lakota Sioux contributed art work and an official cultural evaluation report describing their traditions and spiritual uses of these fossils. Their traditional knowledge is now incorporated into the public displays at the Agate Fossil Beds museum. (12)

In another example, paleontologists Jim Martin and David Parris at the South Dakota School of Mines in Rapid City created a partnership with the Crow Creek Sioux Reservation. For the past 20 years, tribal scouts have advised the museum field workers on the locations of significant dinosaur fossils on their reservation. In exchange, their help is acknowledged in scientific publications and displays, bringing international recognition to the Crow Creek tribe. (13)

Since 1995, the Society of Vertebrate Paleontologists' Outreach Committee has maintained relationships with Native American groups in fossil-rich areas. The paleontologists advise amateur Indian collectors about preserving fossils and establishing museums on

reservations. The paleontologists hope that these efforts might stem the trend of selling important dinosaur fossils to wealthy celebrities, like Brad Pitt and Newt Gingrich. (14)

Another recent example of cooperation involves the Museum of Rockies in Bozeman, Montana. The museum paleontologists agreed to prepare a very rare, nearly complete baby Tyrannosaurid skeleton found by the Blackfeet tribe on their reservation. The scientists were able to study this important fossil during the years of reconstruction and restoration. The museum gets to keep a cast, while the Blackfeet retain the actual fossil. This is a striking contrast to the numerous dinosaur fossils removed without permission from the Blackfeet reservation in the past by US and Canadian museums. Now the Blackfeet proudly display a professionally prepared baby dinosaur in their own tribal center in Browning, Montana, which attracts tourist dollars. (15)

Natural history museums could find positive ways to incorporate Native American traditions about fossils, which would educate the public on how pre-Darwinian interpretations can anticipate modern science. The first, and as far as I know, the only museum to do this is the Journey Museum in Rapid City, South Dakota, which has a Lakota

Sioux advisory board to achieve Native perspectives in its permanent displays. The Badlands dinosaur fossil displays have side-by-side, complimentary narratives, co-written by paleontologists and Sioux elders.

A current popular exhibit called "Mythic Creatures" at the American Museum of Natural History (May – Dec 2007) demonstrates how some stories of fantastic creatures, such as griffins, unicorns, and water monsters, arose from observations of extinct animal fossils around the world. This show will travel internationally for the next ten years, giving voice to diverse ways of understanding fossils since antiquity. (16)

I'll conclude with two very hopeful signs from the National Park Service. Last year (2006), the Badlands National Park appointed its first Native American director, Paige Baker. Baker has high hopes of resolving the bitter conflicts over fossils in the Stronghold unit of the Park. It has even been suggested that the Sioux tribe may be the best stewards of that portion of the Park.

Also in 2006, a National Park Service paleontologist, Vincent Santucci, and Jason Kenworthy gave an influential presentation at the high-profile annual Federal Fossil

Conference in New Mexico. Santucci and Kenworthy suggested that the 180 National Park sites with paleontological resources should relate the fossils to their ethnographic context, by publicizing Native American traditions, stories, legends, and spiritual and practical uses of the fossils. This new concept encourages the National Park Service to recognize prior indigenous fossil discoveries and interpretations on public lands.

Santucci and Kenworthy included a preliminary survey of a dozen National Parks where this could be accomplished. I'll conclude with Santucci's and Kenworthy's words. They note that the Park Service and other agencies usually distinguish between natural and cultural resources. But they suggest that "the stories and legends told by American Indians offer a unique perspective into the traditional spiritual significance of fossils and offer an exceptional opportunity to illustrate the interconnectedness of humans and nature." (17)

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