Secrets of the Magic Valley
Skull in the Quarry

CHAPTER SEVEN

Silt and sand hung suspended for a moment on the edges of a dynamite blast that boomed down the river canyon. A huge, dirty-white mastodon skull fell through the cloud and landed on a sloping bluff below the bone quarry. The Smithsonian had returned to Hagerman. In the early summer of 1934, the institution’s fourth expedition found the Horse Quarry caved in, so the scientists consulted a miner. His last shot blew out the formidable skull and jaws from high above the level of the prehistoric horse skeletons.
that put Hagerman on the scientific map. "We retrieved most of the larger fragments," wrote the Smithsonian's C. Lewis Gazin, "and it is hoped that we may be able to piece some of them together in the laboratory."

Early Idaho had fossil fever. In 1933, C. S. Wheeler of American Falls wrote of bones "very wonderful in appearance, you know they must be at least 3 thousand years old. Some say that have saw the bones they are a giant human, but that is not the question. It is what we
may find in the same place I have found these because it is the most attractive place in nature I have seen in all my travels, it is a bone yard of bygone ages. Still I can not give my fossils away.” Mrs. Althea Fouch shared that sentiment. As secretary of the Idaho State Historical Society in 1935, she expressed concern over Gazin’s apparently cavalier attitude toward Hagerman’s fossils. Claiming the institution had given the impression that nothing of any importance was discovered, Fouch called for laws to “force the large institutions of the east to divide their findings in excavations with the states.” This teapot tempest reflected a national investment in all things ancient and wild.

As an infant nation, the United States had faced an identity crisis. With no long history to showcase in great cathedrals and stately museums, America needed its own cultural identity to establish itself beside European nations who looked down their civilized noses at the upstart transplants in the New World. Abbé Raynal wrote from France, “One must be astonished that America has not yet produced one good poet, one able mathematician, one man of genius in a single art or a single science.” Thomas Jefferson replied, “... this reproach is as unjust as it is unkind; and that, of the geniuses which adorn the present age, America contributes its full share.” Jefferson noted the contributions of George Washington to liberty, Benjamin Franklin to physics, and David Rittenhouse to astronomy, but something unmistakably American was required for national justification. The new nation would find its pride in wilderness.

Following the Civil War, the tension between using the country’s natural resources and preserving them prompted citizens to organize and the federal government to expand its role in the realm of conservation. President Ulysses S. Grant signed the Yellowstone Park Act on March 1, 1872, creating the country’s first national park. In 1888, gentleman big-game hunters led by Theodore Roosevelt and George Bird Grinnell, a future president of the National Parks Association, formed the Boone and Crockett Club. The slaughter of birds for the millinery trade had led Grinnell to propose an organization for the protection of wild birds and their eggs, and Audubon
societies sprang up throughout the states. But the personal conflict between two wilderness lovers would split the fledgling conservation movement into factions that defined more than a century of activism.

John Muir championed wilderness for its own sake. In spite of the harsh work required on the frontier homestead of his boyhood, he regarded civilization as cruel and nature as the means to spiritual fulfillment. Schooled in science and transcendentalism, he developed a philosophy focused on the mystical ability of wilderness alone to counteract the oppressive effects of human society. According to Muir, “Why should man value himself as more than a small part of the one great unit of creation?” Gifford Pinchot devoted himself to the management of wilderness. His love of woodlands and fishing led him into a forestry career, but his outdoor experience resulted in a more utilitarian approach to natural wealth. Schooled in Europe’s timberlands, where trees were treated as a crop, he developed a philosophy focused on the ability of civilization to provide national well-being through the development of natural resources. According to Pinchot, “A well-handled farm gets more and more productive as the years pass. So does a well-handled forest.”

In the summer of 1896, the bearded Muir and the moustached Pinchot met in Montana during a Forestry Commission woodlands tour. Their mutual enthusiasm for forests initially drew them together, but that fall the commission split over its policy recommendations for the management of the forest reserves. Muir’s group wanted more forests preserved from commercial use, and Pinchot’s group wanted forest reserves opened for economic development. Muir understood the validity of both claims on the environment. Even as founding member and president of the Sierra Club—organized in 1892 specifically for wilderness preservation—he tried to accommodate progress, praising Pinchot’s “wise management” model. Compromise proved impossible, however, and the two men broke in 1897 over the issue of grazing sheep in forest reserves. While Muir shifted his efforts to fostering national parks, Pinchot organized the United States Forest Service. By the early 1900s, Pinchot and his colleagues had made wise use synonymous with conservation, but Muir’s wilderness proponents enjoyed unprecedented grassroots support. When the Smithsonian Institution ventured to Hagerman at the end of the Roaring Twenties to uncover fossils at a future national monument site, conservation had become part of the American social environment, and wilderness had become a cult.
Hagerman sits directly opposite a series of steep bluffs shaped by the Snake River cutting through the sand, silt, and clay sediments of the Glenns Ferry Formation. Fossils accumulated here over three million years ago on what is now a plateau west of the river. Only 14,500 years ago, the Bonneville Flood’s enormous deluge ripped across the plain and covered the valley floor, leaving behind the rounded basalt boulders, called melon gravels, that litter the countryside. Through millennia, runoff from seasonal rains deeply dissected the flood-carved bluffs and created ravines that exposed fossils—a treasury of fossils including the world’s largest sample of the extinct zebra-like ancestor to all modern horses.

In the early 1920s, Hagerman rancher Elmer Cook discovered the future site while chasing cows in an inaccessible wash on the west side of the Snake River. He began collecting a large cache of fossils, sometimes dumping out his Bull Durham to save the small bones of mice, shrews, or fish in the tobacco sack. Cook wrote letters for several years trying to interest the government in his find, but the bones did not gain national attention until 1928 when Harold Stearns of the U.S. Geological Survey found fossils on Cook’s front porch. Gathering data on Idaho groundwater resources, the geologist had heard about the rancher’s large collection and paid him a visit. Impressed with Cook’s bones, Stearns asked to see the site and collect fossils of his own. He sent almost 200 pounds of material to Dr. James Gidley at the Smithsonian’s National Museum. He identified the bones as a fossilized horse species and wasted no time arranging the first of four Smithsonian excavations over the next six years.

Gidley left Washington on June 24, 1929, for Idaho Falls to meet Stearns. He spent the days following his arrival surveying major areas of southern Idaho, including McCammon, American Falls, Twin Falls, and Bliss. After thoroughly exploring the countryside, Gidley, Stearns, C. P. Singleton, Fred Conklin, Elmer Cook, and Frank Garnier made camp on the plateau above what would later be named the Hagerman Horse Quarry. The Smithsonian had persuaded Singleton, credited with the discovery of the important Pleistocene fossil locality in Melbourne, Florida, to come west and be part of possibly another grand discovery. Gidley hired Hagerman local Conklin to construct boxes for shipping the fragile fossils back to the National Museum in Washington, D.C. Cook pulled himself away from his ranch to dig in the quarry and prospect other areas. His enthusiasm and knowledge of the area made him a
valuable asset on all four Smithsonian digs. Gidley also hired Garnier, another local resident, as the cook and camp man. When Garnier left the dig at the end of July, Idaho Power Company had employed most of the available men in the region to erect a new power plant. Finding a replacement proved difficult until Cook's wife, Lydia Ann, agreed to keep the camp in order and prepare the meals.

The expedition members planned to acquire good collections of fossil bones from the
more important localities and determine the age of the various sedimentary deposits of the Snake River Valley. Material gathered during the trip would be used for exchange with other museums, as well as for study and exhibition at the National Museum. By early July, Assistant Secretary of the Smithsonian Alexander Wetmore decided Gidley's work should focus on Idaho for the rest of the summer of 1929. In his July 9 letter to Gidley, Wetmore suggested a postponement of the planned expedition to Montana in favor of additional time in the Magic Valley. On July 21, Gidley responded: “I agree with you that the Idaho work is now of major importance the rest being side issues to be postponed or abandoned as seems best later, and of course Hagerman is at present the chief point of attack.” He had already shipped 1,300 pounds of horse fossils to the Smithsonian, and he hinted there might be enough material in the “old hill” to supply all the big museums of the country with exceptional collections.

In August, fossil bones still came strong. The group had already prepared four boxes for shipment to Washington, while nearly five more waited for storage. Abundant and easy to dig, some of the fossils proved hard for the Smithsonian staff to handle. Blocks of bones in plaster casts could weigh several hundred pounds and required a wooden sled to remove. Four men in single file pulled a nailed-together contraption of tent ridgepoles and two-by-fours up the steep trail a quarter mile to camp. Later, since the trail was too narrow for a horse team, they used Cook’s old workhorse, Fred. Gidley explained in a letter the difficulty of salvaging the delicate fossils: “They are in soft sand, many of them partly encased in a hard contemporary rock, and usually mixed without rhyme or reason. To add to our troubles many of the bones...
not protected by the rock are very fragile and much cracked up requiring much gum and plaster, then even it is not possible to save some of them.”

Preserving the brittle bones was only one kind of trouble for the crew; Snake River scorpions and rattlesnakes provided another. The Smithsonian determined that a nine-inch scorpion captured by Cook on the Hagerman bluffs was one of the world’s largest. A week later he found another eleven inches long. He put the scorpion in a tomato can and tried to carry it out in his pack, but when he heard it prying at the lid, he let it go. Once Cook had to grab his young son, Dick, and throw him down the hill when the boy cornered a rattlesnake on the narrow, steep-sided trail to the quarry. While snakes and scorpions startled, the weather aggravated. In nearly every letter Gidley wrote, he mentioned the heat or the wind and sometimes both. The intense heat prompted early morning starts, and the high winds meant work might be delayed or called off for the day. Some of the men had to have a doctor probe wind-blown sand from their ears. Water especially was a tough issue for the camp. Their nearest source, the Snake River, required negotiating a steep slope with a horse carrying the five-gallon milk cans used for storage. In the cool mornings, the water tasted delicious. By evening, “the liquid would boil eggs and nobody cared whether they drank it or not.” Gidley even refused to let the tobacco-chewing Garnier share the communal canvas waterbag.
Though strict about water and work, Gidley was good-natured. When the crew inadvertently got into an ant nest, he danced around and stripped off with the rest of them. Singleton, a pipe-smoking Georgian in jodhpurs, laughed at others' ant bites but had to endure his own torment when the snake skeleton he claimed he had found turned out to be a horse's tail. Cook and Conklin gave the camp another good story: Driving in on an old coyote trapper road to pick up a load of fossils, they encountered a couple of startled moonshiners. The 'shiners thought they were caught and jumped out of their car with rifles, but Cook just calmly drove around them.

By August 22, Gidley decided he had accomplished enough for the first season. The Smithsonian crew stored all its camp equipment in a warehouse located next to the Merit Store in Hagerman, an inexpensive alternative to shipping everything back the following summer. Gidley left on August 23 for Washington, D.C., where he planned to quickly clean and prepare the recovered fossils. But though he had sent five crates on the Oregon Short Line Railroad from Bliss on July 17, only four arrived at the museum on August 1. He was unaware of the lost box until his arrival at the Smithsonian in early September. On September 14, the museum shipping clerk sent a letter to the freight agent inquiring about the missing crate, but no reply came from Bliss. Angered by the railroad's disinterest, Assistant Secretary Wetmore also sent a letter to the freight agent in Bliss. Finally, almost a month after the shipping clerk's first letter, the railroad responded. The shipment was traced to Baltimore and delivered personally to Gidley on October 19, 1909.

Gidley's crew sent three tons of specimens to Washington that summer. Most were of a horse later named *Equus simplicidens* and included fossils of all ages and both sexes. Not only had the Smithsonian discovered the largest single sample of an extinct species of horse, it had also found the earliest known representative of the modern horse genus, *Equus.*
Museums and universities from all corners of the country poured letters into the Smithsonian after the first season at Hagerman. Eager curators and paleontologists wanted details about the variety and number of fossils recovered, as well as future plans for the Horse Quarry. In response to a letter written by W. D. Matthew, chair of the Department of Paleontology at Berkeley, Wetmore outlined a second trip to Hagerman for early summer. He planned to send Gidley to the same Idaho sites opened the previous year. Wetmore wrote, “We expect to develop this site carefully so that the maximum yield of scientific material will be obtained ... and I believe that we shall have some material that we can let you have in exchange later.”

In early May 1930, Gidley and his assistants traveled back to Hagerman to resume work at the quarry. Instead of the previous summer’s devastating heat, the Smithsonian crew found themselves in the middle of a cold rainstorm. This year’s camp included C. P. Singleton, Samuel P. Wells, Elmer Cook, Frank Garnier, and J. Young Rogers. Singleton, making his second trip to the quarry, worked as chief field assistant. Wells, a graduate student from the University of California, received his first opportunity to work with the Smithsonian in Idaho. Cook returned, but his attendance was sporadic. Garnier came again as camp cook, but soon left as he had the year before. After a week’s services, Gidley replaced him with Rogers.
The rain made the dirt roads slippery and hazardous, postponing the crew's trek to the high desert plateau near the fossil bone deposit the Smithsonian had worked in 1929. They spent five days indoors waiting for the weather to break. On May 9, sunshine offered a reprieve, and the men loaded their two-ton Ford truck with a week's rations, boxes, lumber, and thirty gallons of water. To reach camp, they had to cross the river on the main highway's bridge four miles south of Hagerman and then traverse twenty-five hilly miles over a rarely used dirt road. Part of this route followed the same path many pioneers took as they journeyed the historic Oregon Trail, and Gidley found three cast-iron hub-thimbles for the National Museum's collection during one of the biweekly trips to town for food, water, and materials.

With camp established, work began at the bone deposit situated at the southern edge of a short hill jutting out from the border of the plain. The party had to first remove overburden from the bone-bearing layers, often spending hours and even days shoveling the cross-bedded bands of coarse and fine sand to reach the fossil layer. As the crew uncovered bones, they brushed them clean, then saturated each with a thin solution of gum arabic. Gidley and his assistants further safeguarded the delicate bones by adhering burlap dipped in raw flour paste or thin plaster of paris. When dry, it formed a light, tough jacket similar to casts for broken human bones and necessary for packing and shipping to Washington, D.C. Cook ran out of plaster of paris once while casting fossils by himself. He built a fire to heat some gypsum and ground it up as a substitute. According to his son, Dick, the Smithsonian wrote and asked "what in the hell he cast those fossils in because they couldn't get it off."

Ending the second productive season at the Horse Quarry, Gidley was asked by a reporter if he had found human bones among the horses. His earlier discovery of a Pleistocene man at the Melbourne site in Florida had brewed a scientific storm. "If we had discovered any human bones," he replied, "we would have covered them up again quickly and hurried away in order to
avoid any more trouble." Gidley never returned to Idaho. Illness kept him from leading a third Smithsonian dig at Hagerman, and he died in Washington, D.C., on September 26, 1931. His final journal article in 1930 for the National Museum about fossil excavation in Idaho not only conveyed an account of his work in Hagerman, but also revealed his passion for discovery. "To the fossil hunter such a deposit as the one here described is of much more than passing interest. First there is a satisfaction in working out a successful technique for collecting and preparing the bones for shipment to the laboratory; and there is the added keen pleasure of anticipation and expectation, as foot after foot and yard after yard of undisturbed ground is worked over, that the next bone to be discovered and developed will prove to be new to science or at least a better specimen than has before been found of an already known species."

Boise resident Richard P. Erwin shared Gidley's passion and had long believed scientists would someday discover Idaho as a field for investigation. He took a keen interest in the rock writings of Native Americans and considered all remnants of Idaho history important. Thinking the state museum should make efforts to acquire Hagerman Horse fossils, he asked the Idaho State Historical Society to seek a cooperative expedition with the Smithsonian in their upcoming 1931 season. When the board voted in favor of his idea, Erwin's wife wrote to Gidley inquiring if a joint effort would be agreeable. Gidley replied the decision was not his, but he could think of no reason why an agreement satisfactory to both parties could not be arranged. He believed the society would be better served by sending one representative rather than a group: "The natural result of two parties working the deposit at one time and dividing the material on the ground would be to separate permanently the more or less scattered bones of single specimens."

Gidley advised the Historical Society to contribute money to the expedition and send one man to receive instruction on proper methods of fossil bone collection. And he assured Mrs. Erwin the Boise Museum would obtain a liberal amount of fossil material for their contribution, as well as a better representation than the society could hope to get by undertaking the
work independently. Mrs. Erwin shared Gidle's plan with the board members, and they approved it unanimously. The Historical Society quickly authorized a $200 contribution, hoping it would be enough to secure a good amount of fossil material for the state museum. On June 5, 1931, Assistant Secretary Wetmore officially welcomed their cooperation and accepted their donation.

By June 1, Smithsonian paleontologist Norman Boss had left Washington to begin the institution’s third expedition. After arriving in Bliss on the 4th, he traveled by bus to Hagerman where he met crew members C. P. Singleton, Charles Bremmer, and C. W. Caldwell late in the evening. The group gathered equipment and supplies and left Hagerman on the 8th to establish camp near the Horse Quarry. Five days later, while Boss and his crew collected material left over from the previous year, the Historical Society hired Harold Tucker of the College of Idaho at Caldwell and sent him as their representative to the dig. In Tucker’s first letter to the society, he wrote of three skulls and a jaw he helped uncover, as well as the harsh winds that blew all day. He was experiencing all facets of fossil collection: the removal of overburden, the search for the fossils, their retrieval from the ground, and their preparation for shipment. Also in the letter, Tucker requested gum arabic, ten gunnysacks, and fairly tough but not too heavy wrapping paper for casting and packing bones. He believed the items could be purchased in Boise and sent to the Smithsonian camp less expensively than they could be bought in Buhl or Twin Falls.

The workforce stripped away enough overburden using a plow and a horse-drawn scraper (fresno) to reveal a bone-bearing layer approximately 500 square feet. With all the dirt removed, fossils emerged in abundance. By the end of July, the crew had recovered five complete horse skeletons, thirty-two skulls, forty-eight pairs of lower jaws, and numerous limb and foot bones in excellent condition representing both sexes and all stages of growth. They also found the fossil remains of birds, turtles, and fish, a season’s work that filled thirty-seven boxes weighing 8,332 pounds.

On July 24, Tucker wrote to Boise informing the Historical Society of the current situation at the dig.
Boss wanted to break camp on August 3, so Tucker needed timber to build boxes for shipment and a truck to haul the fossils to Boise. He wrote of the Smithsonian’s decision to give the society one-fifth of the material uncovered at the Horse Quarry, and he also reminded his employers of the work still ahead to prepare the fossils for display.

Before leaving Hagerman, the lean-faced, sun-darkened Boss sold all the Smithsonian’s camp equipment. Nothing would be taken back to Washington or stored in Martin’s Warehouse, a departure from years past. It seemed the Smithsonian had no further plans for the quarry, something Mrs. Erwin understood when she had asked to cooperate on the Smithsonian’s “third and final trip.”

While the Smithsonian excavated, the stock market crashed and the United States fell into economic depression. In 1932, when President Herbert Hoover could not spur the economy or lift the nation’s spirits, the voters put their faith in Franklin D. Roosevelt. As a result of Roosevelt’s New Deal legislation and the leadership of his secretary of the interior, Harold Ickes, the National Park Service became a more prominent federal agency. By the end of the 1930s, the number of areas governed by the Park Service more than doubled, permanent staff grew significantly, and the scope of its obligations greatly expanded. It assumed responsibility for preservation and jurisdiction over all memorials, military cemeteries, and battlefields. The guardians of Yosemite looked after the Statue of Liberty and Antietam as well with greater opportunities for historical interpretation. Park rangers could now do much more than merely guide visitors—they could reveal the essence of each site. The Park Service had entered a new era.
when the Smithsonian sent Dr. C. Lewis Gazin, hired in 1932 as assistant curator of fossil mammals, on a final expedition to Hagerman.

On May 18, 1934, Gazin left Washington, D.C. by train and started the Smithsonian's fourth journey to the Snake River basin. Along the way, he stopped in Pittsburgh, Chicago, and Denver, touring the exhibit halls of local museums and visiting colleagues. George Sternburg and George Pearce met Gazin as he came off the train in Bliss on May 28. The three drove to Hagerman, bought groceries, and set up their camp near the same quarry worked by Gidley and Boss. Dick Cook remembers Gazin as “an old man with a white moustache, a white cap, white shirt, white pants, everything was white.” In spite of the dig’s demands, the scientist took time to set the small boy on his knee, tell him stories, and give him gum.

Gazin found the quarry in extremely poor condition, mostly owing to wind-blown sand and the cave-in of the forty-five-feet-high back wall worked three years previously by Boss. The men would have to remove a substantial amount of overburden to reach the bone-bearing layer. Gazin hired Harry Hall, a local prospector and experienced miner, to blast out
a large section of the back wall, and Richard Clifford used his workhorse-drawn fresno to remove debris from the quarry. In that debris lay the mighty mastodon’s skull and jaws. While Hall and Clifford took out tons of dirt, Gazin, Pearce, and Elmer Cook prospected other sites near the camp. The group recovered various horse fossils, the skull of an extinct species of antelope, the skulls and lower jaws of large beaver, and the bones of a pumalike cat.

On July 1, more than thirty days after Hall and Clifford began clearing the Horse Quarry with picks, shovels, and scrapers, it was ready for excavation with whiskbroom and awls. Gazin described the quarry in detail: "The exposed surface of the fossil bed was in plan the shape of a crescent about 55 feet between tips and about 18 feet from front to back across the widest portion. The back wall rose from both ends of the cut to a point somewhat over 50 feet higher than the middle of the bone layer. The dump in front of the quarry extended some 50 or 60 feet out from the edge of the bone layer and represented the accumulated debris of three seasons of quarrying in addition to the material moved during the present season." Because of the high concentration of bones, large blocks of earth had to be taken up and carefully bound in burlap and plaster of paris. Though Gazin’s party unearthed the remains of many different animals, the bulk of the fossils collected belonged to the extinct horse, *Equus simplicidens*.

Prospecting the bluffs south of the quarry along the west side of the Snake River, the crew found other animal bones in the well-exposed formation. Within its sandy slopes they encountered the widest variety of fossil remains found during the expedition, among them a shrew, a small dog about the size of a coyote, a saber-tooth cat, a large otter, beaver, muskrats, ground squirrels, rabbits, ground sloths, mastodons, and two species of...
camel. In addition to the mammals, they found an assortment of birds, turtles, snakes, frogs, and fish. Gazin specifically mentioned the skeletal remains of three peccaries uncovered by Pearce: “an adult and two young huddled together almost as in life” that looked complete.

By August 5, Gazin and his group began making crates to ship all the fossils they had collected. They built thirty-six boxes from 820 feet of lumber, and used over 1,200 pounds
of plaster of paris in order to ready the 15,000 pounds of fossils for the train ride to Washington, D.C. By the 16th the bones were sent, and Gazin traveled to other locations prospecting for more material. After searching near the Bruneau River, Grand View, and Stinker Creek, he decided to end the season.

Between 1934 and 1938, Gazin published articles on fossil shrews, mustelids, sloths, hares, and horses from the early Pliocene collected in Idaho. His efforts, combined with the work of Gidley and Boss, seemed to cover all points of interest in the area. Since the Smithsonian had more than enough fossils to exchange with interested museums across the country, it appeared further explorations and writings concerning the deposits at Hagerman could only be an act of repetition.

More than twenty years after the final Smithsonian excavation in 1934, the steep bluffs opposite Hagerman once again crawled with scientists. This time attention centered not on the larger specimens but on the critically important small Pliocene fauna like snails and rodents. Claude Hibbard and Dwight Taylor spent several seasons exploring the Hagerman Fossil Beds during the late 1950s and 1960s and collaborated on a series of journal articles. Hibbard, working for the University of Michigan, wrote on insectivores, rabbits, and rodents from the Pliocene found in Idaho. Aldrich Bowler, who brought his young son Peter out to work on the excavations, described the paleontologist as "tall and dark, a very striking man." Dick Cook recalled Hibbard’s aversion to buzzards: "The worst thing he ever studied. They would puke and stink—he said it was his worst assignment." Taylor, working for the U.S. Geological Survey, wrote extensively on snails. Hibbard’s and Taylor’s cooperative articles provided a detailed study of Pliocene and Pleistocene faunas in the western United States. They aimed to advance the knowledge of the geologic range and stratigraphic value of many fossils and to create a more solid foundation for environmental interpretation of fossil deposits. Their work helped establish Hagerman not only as a source for horse fossils, but also as a world standard in Pliocene fauna.

James Reid Macdonald had long carried an ambition to reopen the Smithsonian Horse Quarry and collect a representation for the Natural History Museum of Los Angeles County. The opportunity eluded him until after his museum’s work in the Anza-Borrego Desert, when a Hagerman collection became a "must" for comparison with the fossils excavated there. On June 1, 1966, Macdonald and Floyd Humeston left California and traveled to Idaho. They organized camp near the edge of the Snake River across from the striking falls of Thousand Springs. Unlike the Smithsonian excavators, Macdonald had a bulldozer to remove overburden and level the quarry face. After a day with the bulldozer, Macdonald, helped by University of Michigan students under the direction of Hibbard, spent a week shoveling the coarse-grained sand and clay. The group uncovered
an average of a skull a day, with the other skeletal remains jumbled together in the ancient sand bar. Students found fossils in solid concretions and in soft sand, but all specimens had to be carefully handled and untangled in proper sequence to preserve as much of the bone as possible. By the end of June their finds included twenty-five horse skulls, a colt skeleton, and a huge pile of miscellaneous bones representing a great many animals from the fauna, certainly more than enough to compare with the Anza-Borrego material.

John H. White, curator of vertebrate paleontology at the Idaho Natural History Museum, decided to conduct excavations at Hagerman the following year. With the help of Dave Fortsch, White began work in early June 1967. Like the Gidley party of 1931, they had to postpone the removal of overburden due to poor weather conditions. It rained for about a week before efforts could begin in both the quarry opened by the Los Angeles County Museum and a new area west of the site. White uncovered about a dozen skulls and numerous other bones during the nineteen-day excavation, a fair amount for the Pocatello museum.

Rediscovery of the Hagerman sites spiked the controversy anew over disbursement of Idaho's fossils. Like Althea Fouch in 1935, columnist Jim Maclean decried the absence of any laws preventing shipment of fossils to out-of-state museums. Writing in 1954, he called the Smithsonian expeditions "raids" and claimed Idaho had been "systematically looted for 30 years of tons of priceless fossils showcased in museums across the United States." Lack of money compounded the lack of laws. Mrs. Vietta Anderson of Burley offered the Idaho Historical Society full rights to the complete skeleton of a sixteen-feet-tall mastodon discovered on her farm. When Idaho could not raise the $1,500 to excavate, ship, and set up the fossil, Utah got it.

In 1968, a year after his excavation, White proposed a state park at Hagerman. "I'm no promoter," he said, "but I think this is a jewel. We've got something here Disneyland would love to have." But private agricultural and irrigation development kept pace with efforts to preserve the area. In 1974, the National Park Service completed a report requested by Idaho's congressional delegation. By then a massive irrigation pipe sys-
The secret lay almost through the middle of the fossil beds. The Park Service proposed three options—a state park, a state park and federal cooperative zone, or a national monument—and the debate sharpened. Two years later, Sen. James McClure chaired a hearing at Hagerman over legislation he had introduced with Sen. Frank Church to create a national monument there. Farmers claimed the site “nobody seems to want” certainly did not warrant sacrificing “development of thousands of acres of valuable farmland.” Harry LeMoyne, president of Yahoo Mutual and Tuana Mutual irrigation companies, thought “equipping a national monument with a tourist facility would cost millions of dollars but a few dollars would suffice for scientific preservation.” The Idaho Statesman editorial on December 22, 1976, defended the proposal, saying it was not necessary to sacrifice a “historical treasure” when the land for the monument was a modest 5,500 acres compared to “hundreds of thousands of acres of potential farmland in southern Idaho suitable for development over the years.” As for cost, the editorial felt national rather than state management could better provide funding for this significant and invaluable resource.

Finally in 1988, nearly sixty years after the first Smithsonian excavation, Congress established the bluffs along the Snake River as the Hagerman Fossil Beds National Monument. Because of the area’s unique variety, quantity, and quality of fossils, the government set aside 4,281 acres “to preserve for the benefit and enjoyment of present and future generations the outstanding paleontological sites known as the Hagerman Valley fossil sites, to provide a center for continuing paleontological research, and to provide for the display and interpretation of the scientific specimens uncovered at such sites.” But according to Aldrich Bowler, “They had a bad map, so they set up a preserve that preserved the pipe.” The original lines had to be redrawn since they followed the pipeline right through the bone quarry. Decades of irrigation on surrounding farmland had seeped down and eaten
at the bluffs. "It takes a long time," said Bowler in 1996, "but water will go all the way through it." More than a hundred years after Yellowstone, preservation still battled use.

Conservation gave a young nation historical significance. It drove the creation of national parks to satisfy American longing for heritage. Historian Alfred Runte wrote in 1976, "When national parks were first established, protection of the 'environment' as now defined was the least of preservationists' aims. Rather America's incentive for the national park idea lay in the persistence of a painfully felt desire for time-honored traditions in the United States. For decades the nation had suffered the embarrassment of a dearth of recognized cultural achievements."

Americans adopted the West's wilderness as a surrogate for cultural achievement. Ageless wonderlands became the observable symbol of permanence and stability for the new nation, and science likewise lent itself to America's developing national pride. President Thomas Jefferson, angered by French claims that the animals of the New World were feeble and small, sent the skeleton of an enormous moose to France to demonstrate the magnitude and strength of wild American beasts. Natural science and natural history fed the fledgling national ego.

Hagerman's fossil quarries, significant for their diverse and abundant record of the late Pliocene, reflect the conservationist mood that swept America in the late nineteenth and
twentieth centuries. That strong sentiment led to the creation of forty-eight national parks and numerous monuments, preserves, lakeshores, rivers, seashores, historic sites, memorials, military battlefield parks, historical parks, recreation areas, and parkways. The goal, according to public-land theorist Joseph Sax, was "to preserve the spectacular sites for the average citizen by holding them as public places to be enjoyed by all." But preservation has also made what Runte called a "pragmatic alliance" with use. At Hagerman, paleontological discovery evolved into a knowledge of past environments that gives insight into present environmental problems. The management of natural resources there creates cultural assets. The story of the Smithsonian Horse Quarry excavations does more than illustrate scientific trends or explain procedures for fossil preservation. It unearths a lost world that helped create a new one.
Skull in the Quarry