

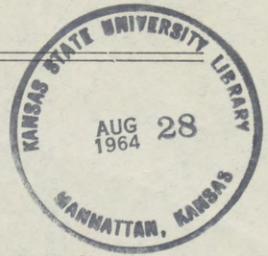
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AGATE FOSSIL BEDS NATIONAL MONUMENT

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HEARING BEFORE THE SUBCOMMITTEE ON PUBLIC LANDS OF THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS UNITED STATES SENATE EIGHTY-EIGHTH CONGRESS SECOND SESSION ON S. 1481

A BILL TO PROVIDE FOR THE ESTABLISHMENT OF THE
AGATE FOSSIL BEDS NATIONAL MONUMENT IN THE STATE
OF NEBRASKA, AND FOR OTHER PURPOSES

JUNE 22, 1964

Printed for the use of the
Committee on Interior and Insular Affairs



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MONUMENT

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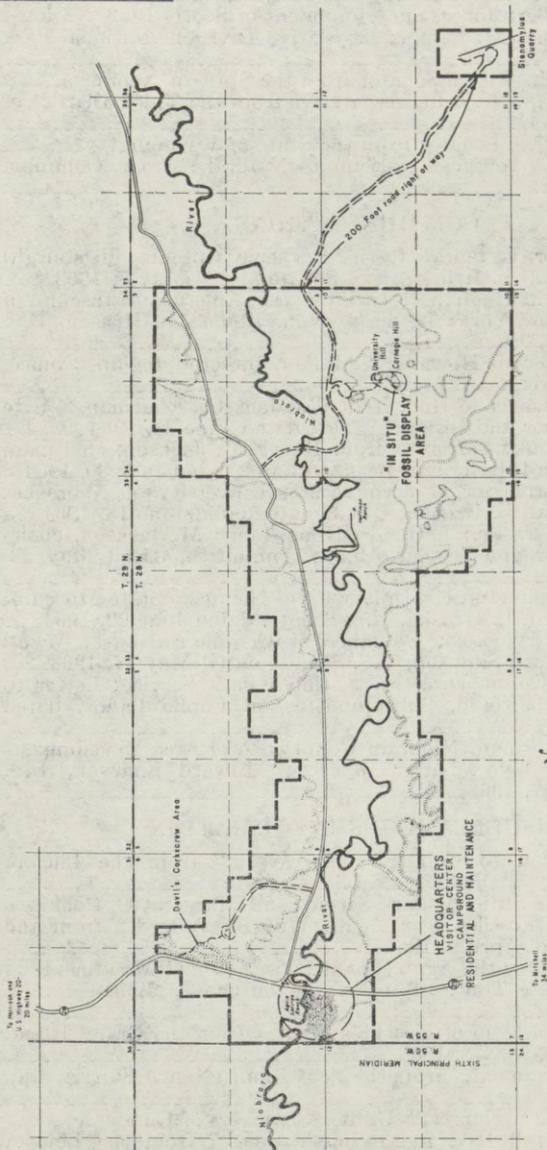
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LEGEND

- EXISTING
- PROPOSED
- Monument Boundary
- Developed Area
- Roads
- Trail
- Trees
- River breaks and hills



A PROPOSED
AGATE FOSSIL BEDS NATIONAL MONUMENT
 NEBRASKA

UNITED STATES DEPARTMENT OF THE INTERIOR
 NATIONAL PARK SERVICE
 MIDWEST REGION

AGATE FOSSIL BEDS NATIONAL MONUMENT

MONDAY, JUNE 22, 1964

U.S. SENATE,
SUBCOMMITTEE ON PUBLIC LANDS OF THE
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:30 a.m., in room 3110, New Senate Office Building, Senator Alan Bible, presiding.

Present: Senators Bible, Anderson, Gruening, Moss, Allott, Jordan of Idaho, and Simpson.

Also present: Jerry T. Verkler, staff director; Stewart French, chief counsel; Roy Whitacre, professional staff member; and Richard Andrews, minority counsel.

Senator BIBLE. We will proceed to our hearing on S. 1481, a bill to establish the Agate Fossil Beds National Monument in the State of Nebraska, and for other purposes.

We will make a part of the record at this point the bill as introduced by the distinguished Senator from Nebraska.

(The bill, S. 1481, referred to follows:)

[S. 1481, 88th Cong., 1st sess.]

A BILL To provide for the establishment of the Agate Fossil Beds National Monument in the State of Nebraska, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to preserve for the benefit and enjoyment of present and future generations the outstanding paleontological sites known as the Agate Springs Fossil Quarries, and nearby related geological phenomena, to provide a center for continuing paleontological research and for the display and interpretation of the scientific specimens uncovered at such sites, and to facilitate the protection and exhibition of a valuable collection of Indian artifacts and relics that are representative of an important phase of Indian history, the Secretary of the Interior is authorized to acquire by donation, or by purchase with donated or appropriated funds, not more than 3,150 acres of land or interests in lands in township 28 north, range 55 west, Sioux County, Nebraska, for inclusion in the Agate Fossil Beds National Monument in accordance with the boundary designation made pursuant to section 2 hereof, and any rights-of-way and easements needed for connecting roads.

SEC. 2. Within the acreage limitation of section 1, the Secretary may designate and adjust the boundaries of Agate Fossil Beds National Monument. Establishment of the national monument and any adjustment of its boundaries shall be effectuated by publication of notice thereof in the Federal Register when the Secretary finds that lands constituting an initially administrable unit are in Federal ownership.

SEC. 3. The Agate Fossil Beds National Monument shall be administered by the Secretary of the Interior pursuant to the Act entitled "An Act to establish a National Park Service, and for other purposes", approved August 25, 1916 (39 Stat. 535; 16 U.S.C. 1 et seq.), as amended and supplemented.

SEC. 4. There are authorized to be appropriated such sums as may be necessary to carry out the purposes of this Act.

Senator BIBLE. Likewise, we will incorporate at this point of the record the official report of the Department of Interior dated February 10, 1964, recommending the enactment of the bill with amendments as suggested therein, also the Budget report of the Budget Bureau dated February 3, 1964.

(The reports referred to follow:)

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington, D.C., February 10, 1964.

Hon. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate,
Washington, D.C.

DEAR SENATOR JACKSON: Your committee has requested a report on S. 1481, a bill, to provide for the establishment of the Agate Fossil Beds National Monument in the State of Nebraska, and for other purposes.

We recommend the enactment of the bill with the amendments as suggested herein.

S. 1481 authorizes the Secretary to acquire not more than 3,150 acres of land within a certain township in Sioux County, Nebr., which contains the outstanding paleontological sites known as the Agate Springs fossil quarries and related geological phenomena. The lands would be included in the Agate Fossil Beds National Monument to preserve these sites for the benefit and enjoyment of present and future generations, to provide a center for continuing paleontological research, and for the display and interpretation of the scientific specimens uncovered at such sites, and to facilitate the protection and exhibition of a valuable collection of Indian artifacts and relics that are representative of an important phase of Indian history. Establishment of this national monument would be effected by publication of notice thereof in the Federal Register when the Secretary finds that lands constituting an initially administrable unit are in Federal ownership. Boundary adjustments could also be effected within the 3,150-acre limitation by publication of notice thereof in the Federal Register. The area would be administered as a unit of the national park system.

The National Park Service has made careful studies of the fossil quarries at Agate Springs and has determined that they are nationally significant in that they contain numerous concentrated, well-preserved Miocene mammal fossils representing an important chapter in the evolution of mammals. This chapter is not at the present time adequately represented in the national park system. The sites are also significant because of the important discoveries made here by scientists who were pioneers in the field of paleontological research in the West.

The Agate Springs fossil quarries site located in Sioux County, Nebr., is world renowned for its rich concentrations of the remains of mammals that lived 15 million years ago. The principal quarries are located on two isolated grass-covered hills which overlook the upper reaches of the Niobrara River in a scenic portion of the Great Plains. Quarries were cut into the sides of these hills whose summits are about 200 feet above the picturesque Niobrara River. About 1½ miles to the southeast of the main quarries is another quarry called the *Stenomylus*, and 3 miles to the northwest are the "devil's corkscrew" formations—casts of ancient beaver burrows. Just west of State Highway 29 and less than one-half mile from the devil's corkscrew formations, natural springs flow near rock formations containing agates, from which the area takes its name. These attractions and others would be included in the area to be acquired by the Secretary of the Interior for preservation as a national monument.

The geologic history associated with these rich deposits of mammal fossils is an interesting and important part of the paleontological story presented at these sites. Following the second uplift of the Rocky Mountains in the Oligocene epoch, the uplifted mountains intercepted moisture-laden winds from the west causing the rains to fall mostly on their western slopes. Precipitation diminished to the east and over a period of many years the vast grasslands of the present-day Great Plains replaced the forests of this region. The formation of these grasslands was followed in the Miocene epoch—the "Golden Age of Mammals"—by the adaption of animal life to the changed environment.

At the sites within the proposed Agate Fossil Beds National Monument are the fossilized skeletal remains of entombed animals that were swept down Miocene rivers—ancestors of today's Niobrara and North Platte—flowing swiftly from the

reelevated Rockies. Animal carcasses swept along these streams were deposited at river bends or eddies and sediment covered the remains. This process was repeated many times until layer upon layer of animal remains were sealed beneath the earth's surface. As alternate layers of sediment covered these deposits and ground waters saturated or percolated through the beds, the sands were compressed and cemented into sandstone. Over a long period of time, the skeletal remains of the entombed animals were fossilized as the porous bones were filled with mineral matter.

Many geologists believe that the foregoing explanation describes the origin of the Agate Springs fossil quarries. Others theorize that the animals became trapped in quicksand when coming to the river to drink and sank into an ancient quagmire. In any event, the unusual conditions that brought about the large concentration of animal remains within a relatively short period of time will continue to be of studied interest to the scientific community, as well as the general public.

The most outstanding examples of Miocene animal life preserved at this proposed national monument are the remains of the *Diceratherium*, the *Moropus*, the *Dinohyus*, the *Stenomylus*, and casts of the burrows of the *Palaecocaster*.

The *Diceratherium* was a two-horned rhinoceros about the size of a Shetland pony. This small, swift creature was by far the most common mammal to roam the Great Plains during the Miocene epoch—possibly it was as numerous then as the buffalo in the 1700's. The *Moropus* was a most unusual looking animal having some characteristics of several present-day mammals and some which cannot be associated with anything living today. It was large and heavily built, about 7 feet tall at the shoulders. The head was horselike, the neck suggested faintly the giraffe, the torso a tapir, the front legs a rhinoceros, and the hind legs a bear. Most unusual were the feet armed with large claws, no doubt used for defense and for digging up underground succulents such as roots and bulbs. Not suited for a grassland environment, the *Moropus* probably became extinct later in the Miocene epoch. The *Dinohyus*, or "Terrible Pig" was perhaps the most ferocious inhabitant of Nebraska in Miocene times. It was a monstrous beast over 7 feet tall at the shoulders and about 10 feet long, but had long, slender legs. It had a massive head with large tusks and a small brain. Many specimens with broken bones have been found, suggesting that the *Dinohyus* was an aggressive creature which frequently was wounded in battle.

The *Stenomylus*—a gazellelike camel—was a delicate and graceful little animal, slightly over 2 feet tall, with slender legs and hoofs like a deer. The *Palaecocaster* was a prehistoric beaver that lived in colonies similar to the prairie-dog towns of today. Casts of their burrows—some of which encase the remains of these animals—are much in evidence north of the Niobrara River. These casts are called *Daimonelicies* or devil's corkscrew, so named because of their similarity to immense corkscrews that might have been used by demons. Measuring 6 to 8 feet in height and from 3 to 8 inches in diameter, each of these strange formations has a basal extension approximately 4 feet in length leading off from the vertical burrow at a slightly rising angle. The extension appears to have been the animal's resting chamber.

In addition to the remains of the aforementioned mammals the trained eye also will be able to discern at the Agate Spring's quarries, fragments of the fossil remains of other animals such as the *Syndyoceras*, and *Daphaenodon*, the *Desmathyus*, and the *Promerycochoerus*.

This classic site was considered by the great paleontologist, the late Henry Fairfield Osborn, as "the most remarkable deposit of mammalian remains of the Tertiary Age that have ever been found in any part of the world." The fossil remains are not only extremely abundant and comprise a wide variety of different species, but they are remarkably well preserved with numerous, complete skeletons being a notable characteristic. Since 1891, the early pioneers of scientific research and their followers in the West have centered many of their activities here. Scientists from the Carnegie Institute, the American Museum of Natural History, the Chicago Natural History Museum, the Smithsonian Institution, the Colorado Museum of Natural History, Amherst College, Universities of Nebraska, Yale, Princeton, Chicago, Michigan, and Kansas, and many others have studied and worked at the site. The studies conducted here uncovered the remains of some species of Miocene life for the first time, and excavations have produced fossils for exhibit throughout the world.

In addition, it is proposed to preserve and interpret at this area for the benefit and enjoyment of the public the valuable and historic collection of Indian artifacts, most of which were presented to Capt. James H. Cook (the first white man to discover fossils at Agate) by his Indian friends. Some of the most interesting of

these gifts are a ceremonial jacket of the famous Sioux Chief, Red Cloud, a gun used by Dull Knife's band in their daring escape from Fort Robinson in 1879, and a cowhide pictograph of Custer's last stand painted by two warriors.

At its May 1961 meeting, the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments recommended "that appropriate steps be taken to acquire the Agate Springs fossil quarries area for establishment as a national monument."

The development program proposed for this area would make use of various interpretive methods for presenting the important story of Agate Fossil Beds to the public. The major part of this interpretive development is planned in the vicinity of Carnegie and University Hills—sites of the principal quarries—and would include exposure of in-place fossilized skeletons, reconstructing and relieving certain skeletons, and to complement these there would be a series of museum exhibits. Exposure of fossils for in-place exhibits and removal of others for laboratory use or museum exhibition necessitates careful and meticulous excavation and professional relieving. Hence, paleontological laboratory facilities will be required, and to assist scientists in their work reference materials, including a library and a collection of fossils, will be maintained. The Indian artifacts and historical materials making up the famous Cook family collection would be exhibited at a visitor center. Mrs. H. J. Cook, present owner of the Agate Springs Ranch, has agreed to donate the famous family collection, as well as her late husband's excellent paleontological library to the National Park Service if the monument is established.

We estimate that the proposed development program will cost about \$1,902,000. Our best estimate of the cost of acquiring lands is \$268,000 and the annual operating expenditures are expected to be approximately \$60,000 initially, rising to about \$135,000 after the monument is fully staffed and developed.

We suggest the following amendments on page 2 of the bill:

1. In order to (a) authorize the acquisition of lands or interests in lands for this national monument by means other than donation or purchase; (b) leave no doubt that the acreage of lands and the acreage in which interests in lands are acquired under this bill may not together exceed 3,150 acres; and (c) perfect the land description, we recommend that lines 4 and 5 be revised to read as follows: "funds, or otherwise, title or a lesser interest in not more than 3,150 acres of land in township 28 north, range 55 west, 6th principal meridian, Sioux County, Ne."

2. The Department needs authorization to acquire only one right-of-way for a connecting road between the Stenomylus Quarry and the main quarries of the proposed national monument. We recommend, therefore, that lines 8 and 9 be revised to read as follows: "made pursuant to section 2 hereof, which boundary may include such right-of-way as is needed for a road between the Stenomylus Quarry site and the monument lands lying in sections 3 or 10 of the said township and range."

3. We believe the meaning of the sentence beginning on line 12 and ending on line 16 will be clearer if it is revised to read as follows: "When the Secretary finds that lands constituting an initially administrable unit are in Federal ownership, he shall establish such national monument by publication of notice thereof in the Federal Register, and any subsequent adjustment of its boundaries shall be effectuated in the same manner."

The Bureau of the Budget has advised that there is no objection to the presentation of this report from the standpoint of the administration's program.

Sincerely yours,

JOHN A. CARVER, Jr.,
Assistant Secretary of the Interior.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D.C., February 3, 1964.

HON. HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Bureau of the Budget on S. 1481, a bill to provide for the establishment of the Agate Fossil Beds National Monument in the State of Nebraska, and for other purposes.

The report which the Secretary of the Interior is submitting on this bill describes in some detail the scientific values associated with this area and recommends that it be incorporated into the National Park System.

The Bureau of the Budget would have no objection to the enactment of S. 1481 if amended as suggested by the Secretary of the Interior.

Sincerely yours,

PHILLIP S. HUGHES,
Assistant Director for Legislative Reference.

Senator BIBLE. The Senator from Nebraska will be the first witness on this legislation.

STATEMENT OF HON. ROMAN L. HRUSKA, A U.S. SENATOR FROM THE STATE OF NEBRASKA

Senator HRUSKA. Chairman Bible, members of the committee, we are grateful for the opportunity to appear before you for the purpose of advocating the enactment into law of S. 1481.

The purpose of this bill is to establish the Agate Fossil Beds National Monument in the State of Nebraska.

It would authorize a tract of land for that purpose of not to exceed 3,150 acres located in the northwest corner of Nebraska, in Sioux County.

Senator ALLOTT. Where did you say that was?

Senator HRUSKA. In Sioux County.

Senator ALLOTT. Would you identify that for all of us, please?

Senator HRUSKA. The northwest corner of the State of Nebraska.

Senator ANDERSON. Where is Ogallala?

Senator HRUSKA. Ogallala is about 200 miles southeast of that point.

The park involved is about 45 miles north of Scottsbluff. It is about 50 miles northeast of Cheyenne, and about 160 miles southwest of Rapid City. It is in the extreme northwest corner of Nebraska, Sioux County being the extreme northwest county of the State.

So there would be embraced in the complex of national parks, national monuments, and such historical sites, a tristate area there.

I have a statement here, Mr. Chairman, that I should like inserted in the record in toto, and I shall briefly characterize some of the high spots and then turn the witness chair over to the technical and scientific witnesses who are present here today.

Senator BIBLE. It may be incorporated in the record.

(The statement referred to follows:)

STATEMENT BY HON. ROMAN HRUSKA, A U.S. SENATOR FROM THE STATE OF NEBRASKA

Mr. Chairman, for your courtesy in scheduling this bill for a hearing today, I am grateful. I am mindful of the heavy backlog of pending legislation which has no doubt accumulated in this subcommittee during our preoccupation on the floor with the civil rights legislation, and your willingness to squeeze this bill into the limited time available is all the more deeply appreciated for that reason.

The major purpose of this bill is to preserve for the Nation the unique paleontological deposits located on the Agate Springs Ranch in western Nebraska which was owned by the late Dr. Harold J. Cook. These deposits have been described by the paleontologist, the late Henry Fairfield Osborn, as the most remarkable deposit of mammalian remains of the Tertiary age ever found anywhere in the world. Scientific research has been conducted in the area since 1871. Scientists from the Carnegie Institute, the American Museum of Natural History, the Chicago Natural History Museum, the Smithsonian Institution, the Colorado

Museum of Natural History, Amherst College, the Universities of Nebraska, Chicago, Kansas, Michigan, Princeton, and Yale, and many other scientific institutions have worked and studied at the site.

Establishment of this monument has been endorsed by the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments. The Department of the Interior has given a favorable report on the legislation.

The National Park Service in its study of the proposal expressed its conclusions in the following terms:

"The Agate Fossil Beds are nationally significant because of their numerous, concentrated, well-preserved Miocene mammal fossils, which represent an important chapter in the history of life, one that is not now adequately represented in the National Parks system. This site is significant too because of the important contributions made here by the early pioneers of scientific research in the West. The area also meets suitability and feasibility requirements for a national monument."

DEVELOPMENT POSSIBILITIES

Although this site has been worked, off and on, by scientists these many years, numerous representative remains could be found within the large untouched portions of the hills containing the quarries. It is estimated that at least 75 percent of the fossil-bearing portions of these hills are undisturbed.

Representatives of the Park Service can give this subcommittee more complete detail than I about the significance of the fossil beds from a scientific standpoint.

In addition to its scientific importance, the acquisition of this site enables us to preserve a living link with the Old West of unique interest. It might be said that the story of Agate Springs had its beginnings in 1728 with the birth of James Cook, the famous English explorer, who circumnavigated the globe from 1768 to 1771, explored New Zealand, the east Australian coast, and much of the Pacific, and led the search for a Pacific-Atlantic passage through North America. James Cook was the great-great-grandfather of Dr. Harold J. Cook, who was until his death 2 years ago the owner of the Cook Ranch on which the fossil beds are located.

Dr. Cook's father, Capt. James H. Cook, was a noted Indian scout, friend and confidant of the Sioux Indians, and author of the classic account of life in the early West, "Fifty Years on the Old Frontier." It was Capt. James Cook who discovered the fossil beds. Because of his close friendship with several world-renowned paleontologists, he developed a keen personal interest in the preservation and exploration of the fossils in the most careful and systematic fashion, which has greatly contributed to their scientific value.

Because of his keen interest in Indian affairs, he had many friends among the Indians, including the noted Sioux chieftain, Red Cloud. On the basis of these friendships, he was able to collect many valuable and unusual Indian artifacts. One of them, for example, was a ceremonial jacket of Red Cloud's. This collection of artifacts, plus western wearing apparel and guns, plus the late Dr. Harold Cook's excellent paleontological library will be donated to the National Park Service by Mrs. Margaret C. Cook, Dr. Cook's widow, and one of the principal landowners involved, provided the establishment of the Agate Fossil Beds National Monument is assured by January 1, 1967, the year of Nebraska's centennial. Mrs. Cook also wishes to donate sufficient land for the monument headquarters, and quarrying rights at the principal quarries.

Dr. Harold Cook was himself a noted paleontologist, with an international reputation for his writings in this field, and while he lived, the Agate Springs Ranch served de facto as a headquarters for scientific expeditions and other students. As a result of his death in 1962, a danger exists that the carefully protected fossil beds will not be as conscientiously preserved in the future as in the past. For that reason, it seems urgent that a decision be made now to safeguard these irreplaceable fossil beds by placing them in the hands of the National Park Service.

From the standpoint of my own State and the tristate area near the site, of course, the economic significance of this proposal is of great importance. Experience has shown again and again what a boon to business such a tourist attraction can be.

The most nearly comparable National Park Service facility is the Dinosaur National Monument, in Utah-Colorado, where bones deposited in the Age of Reptiles may be seen in the exposed strata. In 1957, the year before construction of that visitor center, the number of visitors to Dinosaur National Monument was 66,000. By 1959, it had increased to 112,000. Now it is over 200,000 annually.

The National Park Service has estimated that, by the time Agate is fully developed, in about 5 years, the number of visitors will be at least 120,000, and possibly 200,000 or more. Taking the more conservative figure of the two, and assuming that at least two-thirds of the visitors will be from other States or from eastern Nebraska, we must be prepared to provide food, shelter, shopping facilities, and other conveniences to 80,000 persons per year in that area.

Economic studies by the University of Michigan and the Outdoor Recreation Resources Review Commission have shown that tourists spend from \$7 to \$10 per day while visiting park areas. Again using the conservative figure of \$7, this would mean \$560,000 of new revenue brought into the area each year from outside—and that figure should increase with the years.

In addition, the National Park Service plans a development program estimated to cost \$1,902,000 during the first 5 years, probably 90 percent which can be spent locally on labor and supplies and materials. When fully staffed and developed at the end of 5 years, the operating program for management and protection and maintenance of the area will require about \$135,000 a year.

Almost all of the employee salaries are spent locally and most of the supplies and materials can be obtained from this vicinity. Thus, the economy of western Nebraska will benefit by about \$2 million during the first 5 years of this project, over and above the tourist business discussed above.

For all these reasons, Mr. Chairman, I hope your committee will favorably consider S. 1481.

Senator HRUSKA. The major purpose of the bill is to preserve the unique paleontological deposits located on the Agate Springs Ranch in western Nebraska which was owned by the late Dr. Harold J. Cook. These deposits have been described by the paleontologist, the late Henry Fairfield Osborn, as the most remarkable deposit of mammalian remains of the Tertiary Age ever found anywhere in the world. Scientific research has been conducted in the area since 1871. Scientists from the Carnegie Institute, the American Museum of Natural History, the Chicago Natural History Museum, the Smithsonian Institution, the Colorado Museum of Natural History, Amherst College, the Universities of Nebraska, Chicago, Kansas, Michigan, Princeton, and Yale, and many other scientific institutions have worked and studied at this site.

Establishment of this monument has been endorsed by the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments. The Department of the Interior has given a favorable report on the legislation.

The National Park Service, in its study of the proposal, expressed its conclusions in the following terms:

The Agate fossil beds are nationally significant because of their numerous, concentrated, well-preserved Miocene mammal fossils, which represent an important chapter in the history of life, one that is not now adequately represented in the national park system. This site is significant, too, because of the important contributions made here by the early pioneers of scientific research in the West. The area also meets suitability and feasibility requirements for a national monument.

Although this site has been worked, off and on, by scientists these many years, numerous representative remains could be found within the large untouched portions of the hills containing the quarries. It is estimated that at least 75 percent of the fossil-bearing portions of these hills are undisturbed.

Representatives of the Park Service can give this subcommittee more complete detail than I about the significance of the fossil beds from a scientific standpoint.

In addition to its scientific importance, the acquisition of this site enables us to preserve a living link with the Old West of unique interest. It might be said that the story of Agate Springs had its

beginnings in 1728 with the birth of James Cook, the famous English explorer, who circumnavigated the globe from 1768 to 1771, explored New Zealand, the east Australian coast, and much of the Pacific, and led the search for a Pacific-Atlantic passage through North America. James Cook was the great, great grandfather of Dr. Harold J. Cook, who was, until his death 2 years ago, the owner of the Cook Ranch on which the fossil beds are located.

Dr. Cook's father, Capt. James H. Cook, was a noted Indian scout, friend and confidant of the Sioux Indians, and author of the classic account of life in the early West, "Fifty Years on the Old Frontier." It was Capt. James Cook who discovered the fossil beds. Because of his close friendship with several world renowned paleontologists, he developed a keen personal interest in the preservation and exploration of the fossils in the most careful and systematic fashion, which has greatly contributed to their scientific value.

Because of his keen interest in Indian affairs, he had many friends among the Indians, including the noted Sioux chieftain, Red Cloud. On the basis of these friendships, he was able to collect many valuable and unusual Indian artifacts. One of them, for example, was a ceremonial jacket of Red Cloud's. This collection of artifacts, plus western wearing apparel and guns, plus the late Dr. Harold Cook's excellent paleontological library will be donated to the National Park Service by Mrs. Margaret C. Cook, Dr. Cook's widow, and one of the principal landowners involved, provided the establishment of the Agate Fossil Beds National Monument is assured by January 1, 1967, the year of Nebraska's centennial. Mrs. Cook also wishes to donate sufficient land for the monument headquarters, and quarrying rights at the principal quarries.

Dr. Harold Cook was himself a noted paleontologist, with an international reputation for his writings in this field, and while he lived the Agate Springs Ranch served de facto as a headquarters for scientific expeditions and other students. As a result of his death in 1962, a danger exists that the carefully protected fossil beds will not be as conscientiously preserved in the future as in the past. For that reason, it seems urgent that a decision be made now to safeguard these irreplaceable fossil beds by placing them in the hands of the National Park Service.

From the standpoint of my own State and the tristate areas near the site, of course the economic significance of this proposal is of great importance. Experience has shown again and again what a boon to business such a tourist attraction can be.

The most nearly comparable development of this type is to be found in the Dinosaur National Monument in Utah, Colorado, where bones deposited in the age of reptiles may be seen in exposed strata.

In 1957, the year before construction of that visitors' center, the number of visitors to Dinosaur National Monument was about 66,000. By 1959, it had increased to 112,000, and now it is over 200,000 visitors annually.

To give you an idea of the magnitude of this and the timetable just in general terms, the National Park Service has estimated that the full development of Agate National Monument over a 5-year period would involve an expenditure of about \$1,900,000. And there would be an annual expenditure for management, protection, and maintenance of this area of about \$135,000 a year.

It is my understanding that the estimate of the acquisition cost of this 3,150-acre tract would be \$275,000, which is about \$90 an acre, or a little less.

I have for inclusion in the record, Mr. Chairman, a number of letters from scientists and educators. One is Patrick Horsbrugh, the professor of architecture in the College of Engineering and Architecture at the University of Nebraska.

Senator BIBLE. Without objection, that will be made a part of the record.

(The letter referred to follows:)

MEMORANDUM

From. Patrick Horsbrugh, professor of architecture, College of Engineering and Architecture, University of Nebraska, Lincoln, Nebr.

To: Senator Roman L. Hruska, 313 Senate Office Building, Washington, D.C.

Date: June 18, 1964.

Subject: Proposed Agate Springs Fossil Quarries National Monument, Sioux County, Nebr.

May I seize this opportunity provided by the forthcoming hearings of the Interior Committee, devoted to the above subject, to express my confidence in the wisdom of creating a new national monument in western Nebraska.

I am writing to you in a state of encouragement and independence, being a British subject who has learned to appreciate the natural wonders of these United States in general and of Nebraska in particular.

You may recollect that through the enthusiastic cooperation of the recent past director and of the staff of the Midwest region, National Park Service, I was able to present the proposals as a brief design program for the senior students of the Department of Architecture at the University of Nebraska.

This desire to create a national monument at Agate Springs provided us with an exceptionally stimulating program that included many difficult problems of architectural-landscape design, of minimal pedestrian and vehicular circulation and of display. Moreover, the reaction of the senior students to the proposal was of value to me in tempering my own enthusiasm in response to Nebraskan emotions.

In brief, the Agate Springs fossil beds are unique. I do not believe that any comparable deposits have yet been found, in the States or elsewhere.

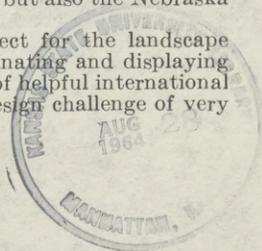
The Agate Springs remains have worldwide paleontological significance, and if this treasury is imaginatively exposed and displayed the benefits to science, to popular understanding of natural history, to local economy, and to State pride can be immense.

Your possession of the Agate Springs treasure carries with it an international responsibility for the revelation and care of its contents, a responsibility which has long been recognized by the owner of the site, and by those institutions which have provided funds and labor in decades past.

Further, the general Sandhills area, in which the fossil quarries lie, are of very exceptional geological interest and of scenic beauty and solitude. The Sandhills are totally dissimilar to any other sandy area that I know, in the North American Continent, in the southern Sahara, or the whole Middle Eastern territories with which I am familiar. The establishment of a major national natural historical attraction here will help to kindle appreciation in yet another remarkable area in a region which is generally derided as being deserted, and detested for its remoteness and its supposed aridity.

I am happy to say that the students learned to appreciate these qualities of scenic isolation and glory, and were concerned that their architectural endeavors should not impose unduly upon the landform, that the wheeled traffic should be handled as unobtrusively as possible, and that every reasonable provision should be made to interpret not only the paleontological materials, but also the Nebraska landscape itself to the visitors.

This design "moral" of acute understanding and respect for the landscape produced some interesting proposals. New ways of illuminating and displaying objects in their natural setting were explored, and the lack of helpful international references showed that this new monument represents a design challenge of very great interest and potential.



At the Dallas convention of the centennial conference of the American Society of Landscape Architects, I am again applauding the pioneering work and high design standards of the National Park Service which is so eminently capable of undertaking a task such as this with imagination and skill.

I beg you, sir, to convey to all concerned that, in addition to the unique paleontological remains that exist here and which should be exposed, there are other economic, scenic, and landscape design opportunities which hang upon the positive decision which I hope is soon to be made.

The world requires the revelation of this treasury, and the State of Nebraska deserves the direct and the indirect benefits which should arise from the creation of the Agate Springs Fossil Quarries National Monument.

[From the Omaha World-Herald, Apr. 9, 1964]

DESIGNS FOR VIEWING FOSSILS NEAR AGATE WILL BE JUDGED

The plans of 12 University of Nebraska seniors in architecture for developing the Agate Springs fossil quarries in Sioux County will be judged today.

The site near Agate is a potential major Nebraska tourist attraction. A bill pending in Congress would make it a national monument.

The students were given the assignment of proposing structures that would allow the public to view the 3-foot layer of fossils that runs through two hills. The quarries contain one of the richest mother lodes of prehistoric animal bones known to scientists.

A team made up primarily of architects, scientists, and representatives of the National Park Service will judge the student efforts.

Submitting designs were Allen Elliot, Erich Broer, Jr., Richard Reinholt, and Paul Kimmons, all of Lincoln; Lynn Bonge of Neligh; Richard Neuman of Hopkins, Minn.; Vern Clark of Chappell; Dennis Craig of Fairbury; Wayne Bartels of Tobias; Charles Szmrecsanyi of Omaha; Jim Goodell of Seward, and Bill Naprstek of Creighton.

Senator HRUSKA. Another is that of Craig Black, curator of the Carnegie Museum.

(The letter referred to follows:)

CARNEGIE MUSEUM,
DEPARTMENT OF THE CARNEGIE INSTITUTE,
Pittsburgh, Pa., May 7, 1963.

HON. ROMAN L. HRUSKA,
U.S. Senate,
Washington, D.C.

Dear SENATOR HRUSKA: I understand that you are considering presenting a bill before the U.S. Senate to preserve the Agate Springs fossil quarries in western Nebraska as a national monument. I would like to endorse heartily your action and to commend you on your efforts to preserve for the public one of the most famous vertebrate fossil sites in the world.

Agate Springs certainly ranks with Dinosaur National Monument as one of the most important and widely known of fossil localities. Over the years since his discovery of the fossil quarries at Agate Springs, the late Harold Cook was instrumental in making the quarries available to qualified collectors and in conducting research on the fossils collected. Continued protection of the quarries is scientifically important and the site deserves to be maintained for education of the public. Members of the Carnegie Museum staff pioneered the work at both Agate Springs and what is now Dinosaur National Monument and were also instrumental in having the latter area put under the jurisdiction of the National Park Service.

Fossil localities such as these are extremely rare and if destroyed are lost forever. I therefore hope that the Senate will act favorably on your bill and I am extremely pleased that you are sponsoring such a bill.

Sincerely yours,

CRAIG C. BLACK,
Curator, Vertebrate Fossils.

Senator HRUSKA. Still another is that of Edwin H. Colbert, chairman and curator of the American Museum of Natural History. (The letter referred to follows:)

THE AMERICAN MUSEUM OF NATURAL HISTORY,
DEPARTMENT OF VERTEBRATE PALEONTOLOGY,
New York, N.Y., June 12, 1963.

Hon. ROMAN L. HRUSKA,
U.S. Senate, Washington, D.C.

DEAR SENATOR HRUSKA: I understand that you are interested in the possibility of creating a national monument at Agate, Nebr., to include the famous fossil quarry there. This letter is written in support of the proposed monument.

It would be most appropriate to set up the Agate Fossil Beds National Monument, in order to preserve a world-famous site for the future enjoyment and edification of our citizens, and of visitors from other countries. This is one of the outstanding fossil localities in the world, and is certainly to be considered as a national treasure.

Very sincerely yours,

EDWIN H. COLBERT.

Senator HRUSKA. I have also selected news accounts of some of the background from earlier years of this area, which I think would be interesting for the record, and submit them for that purpose.

Senator BIBLE. Without objection.

(The news accounts referred to follow:)

[From the Omaha World-Herald, Apr. 18, 1963]

FOSSIL BEDS NEAR AGATE TOURIST SITE?—HRUSKA WILL ASK FOR U.S. PARKS STATUS

(By Harold Cowan, World-Herald Staff Member)

AGATE, NEBR.—If Congress goes along, the famed but remote Agate Springs fossil beds will be developed as a prime northwest Nebraska tourist attraction.

Senator Roman Hruska said Wednesday after inspecting the area he will introduce a bill "at an early date" to place the site in the National Park Service system and that he expects Representative Dave Martin to do the same in the House.

Howard Baker of Omaha, regional NPS director, said the proposal to designate Agate Springs as a national monument has been approved by the Advisory Board of National Parks, Historic Sites, Buildings and Monuments and has been recommended to the Secretary of the Interior.

"OWNERS AGREEABLE"

"Landowners all seem agreeable and this would seem the time to do it," Mr. Baker said.

Said Senator Hruska: "My impressions are most favorable."

As seen by the Park Service, Agate Springs would tell a threefold story:

Paleontology.

Indian lore.

Pioneer ranching.

Development costs were estimated by Mr. Baker at \$1,750,000, including \$275,000 for 2,500 to 3,000 acres of land owned by seven persons, one-half million for road work and the rest for buildings.

It would be 3 to 4 years, he said, before the first phase of the monument could be established.

COOK RANCH CENTER

This would be a visitor's center at the Cook Ranch. Fossil quarries east of the ranch home would be developed next.

Bob Jones, superintendent of the Scotts Bluff National Monument, who has helped prepare plans for Agate Springs, said the quarry development might be similar to that in Dinosaur National Park in Utah.

"Perhaps one room could be dug into the hill to display an articulated skeleton," he said.

The principal quarries are about 2½ miles east of a ranchhouse in twin peaks called University and Carnegie.

They have been visited by scientists from all over the world. Tentative plans call for development of the Carnegie quarry, Mr. Baker said.

It was announced that Mr. Margaret Cook has offered to donate land for the visitor's center.

HUSBAND'S DREAM

The Agate Springs project, she said, was the dream of her husband, Harold, who died last September.

He was the son of Capt. James Cook, Government Indian scout, cattleman, author, and amateur bone collector, who purchased Agate Springs ranch from his father-in-law in 1887.

It was Captain Cook who earlier had discovered the first fossil material in an area now recognized as one of the world's richest in paleontological treasures.

Mrs. Margaret Cook lives at the Agate ranch, 22 miles south of Harrison in Sioux County.

FOURTH-CLASS POST OFFICE

The Niobrara River, 6 to 10 feet wide, winds through the valley. The ranch has one of the Nation's few remaining fourth-class post offices.

Mrs. Cook entertained Senator and Mrs. Hruska, Mr. Baker, and about 25 others at lunch in the old ranch home before the group visited the quarry. Nebraska State Game Commission Chairman Mel Steen was among the guests.

"If the Federal people don't want Agate Springs, the State sure should," he observed. "We've got to compete with our neighboring States for tourists."

[From the Scottsbluff (Nebr.) Star Herald, Apr. 18, 1963]

OUTLOOK GOOD FOR MONUMENT

The opportunity is at hand for this State to benefit from the exploitation and development of one of its distinctive and unique natural wonders and for the National Park Service to preserve for posterity one of the Nation's most unusual and interesting historical and geological regions.

We refer to the Cook family's Agate Springs Ranch and fossil quarries where, if the Congress consents, a national monument will be established under the supervision of the National Park Service.

There should be no question about marshaling support statewide, and particularly in western Nebraska, in behalf of this project.

The movement reached its culmination Wednesday when Senator Roman Hruska, following an inspection tour of the area, announced his intention to introduce a bill to implement the plan.

Now, all agencies of the State capable of molding public opinion should throw their influence behind the proposal to make sure that the dream of the late Harold Cook, owner of the world-famed diggings and repository of early western pioneer and Indian lore, can come true.

The potential for future public interest in this site, when properly developed and organized as only the Park Service can perform the job, is genuinely tremendous and exciting.

That it can become a mecca for visitors and tourists is only a part of perspective, for there are other considerations to justify the proposal quite outside the realm of probable economic benefit to this area and to the State as a whole.

These considerations recognize the fact the fossil beds have been a veritable storehouse of paleontologic and geologic information, a rich source of prehistoric animal skeletons which have been exhibited throughout the world.

These considerations further recognize that nowhere in the Western Plains has Indian history and lore been more intimately associated and related than at the Agate Springs Ranch, where tribal artifacts, implements, clothing, and paraphernalia, all evidences of a vanished civilization, have been collected in prolific and authentic manner.

Thus, Agate Springs Ranch possesses within a few thousand acres the remaining evidences of a past both prehistoric and modern.

It must be preserved, lest its rich heritage should escape from the possession of the people who can enjoy it and be frittered away because a sense of trusteeship is absent.

Either we do these things when we can, or the opportunity vanishes forever, to the detriment of future generations.

We believe that this will not happen. The project is in good hands. The groundwork for it has been well laid. We feel sure that it will come to culmination as planned, and rightly so.

No one who has ever stood on Carnegie Hill and viewed the vast panorama that is called the "big country of the West," as the Niobrara Valley displays it, could ever believe otherwise.

[From the Lincoln (Nebr.) Journal, May 5, 1963]

AGATE MONUMENT PLAN TO CONGRESS THIS WEEK—SENATOR HRUSKA WILL INTRODUCE BILL—FOSSIL BED REMOTE, YET ASTRIDE TOURIST ROUTE

AGATE.—A grassland spot in the Nebraska Panhandle, remote yet adjacent to a crossroads of U.S. tourist travel, will be proposed to Congress this week as a national monument to bridge time between today and the world of up to 60 million years ago.

Its lode: fossils—the most concentrated deposit known to the world of petrified skeletons and bones of prehistoric beasts and birds which has helped to unlock the mysteries of prior time.

Its value: immeasurable.

When Senator Roman Hruska, of Nebraska, introduces in the U.S. Senate a bill to create a \$1,750,000 Agate Fossil Beds National Monument a dream of national scientists and Cook family pioneers will be close to realization.

And Nebraska will be on the way to acquisition of another tourist attraction to be partly completed in time for the State centennial in 1967.

As envisioned by the 1963 National Park Service report, the monument would contain four prominent features:

1. A 3,100-acre segment of the Niobrara Valley bounded on the west by portions of the Cook Ranch homestead adjacent to State Highway 29, following the grasslands of the valley for 2½ miles down the fast-flowing, cool upper reaches of the Niobrara River, and stretching north and south to the rims of the valley buttes which contain the famous fossil "corkscrews."

2. A park driveway at the east end to the most renowned fossil deposits in the world, linking Amherst Point and the twin quarries known as University Hill (for University of Nebraska) and Carnegie Hill (for the Carnegie Museum at Pittsburgh). Here, probably at Carnegie Hill, would stand a rustic, unenclosed national park outdoor museum with exhibits of different stages of fossil collecting connected with an actual tunnel bore into the hill. Visitors could see in place the actual fossil deposits as left by eddies of some prehistoric river or in a quicksand bog.

3. A detached area southeastward containing the famous small hill quarry where Dr. Harold Cook located *Syndyoceras* (a four-horned deerlike animal), turned over to Dr. E. H. Barbour of the University of Nebraska. Dr. Barbour named its species *cooki* in honor of Dr. Cook. This is the only known deposit of this creature, whose mounted specimen in the State museum at Lincoln resemble deer or antelope but morphologically is more closely related to the giraffe.

4. A roadside national park museum on Highway 29 where this paved highway crosses the Niobrara at the Cook home ranch place. The enclosed museum will tell three stories: (1) prehistoric life as unlocked by fossils; (2) life of the Western Plains Indian as revealed from the collections of artifacts and apparel gathered by Dr. Harold Cook and his father, James H. Cook; (3) settlement of the Nebraska Panhandle by the rancher pioneers. The museum will also contain a western gun collection and the scientific collections and writings of Dr. Cook.

STAFF OF EIGHT

A year around staff of eight Park Service men will headquarter near the Agate post office, the smallest post office in Nebraska, in a picturesque area flanked on the north by a small bridge from which Dr. Harold Cook could fish for trout above the dam which momentarily stilled the Niobrara, on the west by the trim, white New England rambling home place of the Cooks, and encircled by stately rows of giant cottonwoods.

This esthetic setting is perfect for a physical link between the remoteness of the panhandle and the beeline of tourist travel linking Scottsbluff National Monument with Fort Robinson, Nebraska's State park and museum of the Indian Wars, the Black Hills, Devils Tower, Yellowstone, the Tetons, and Glacier National Park.

It is a perfect bridge through time between today, yesterday of 100 years ago as known to the Sioux Indians and early rancher-settlers, and the prehistoric beginning millions of years ago.

From its Nebraska beginning there were those who felt this Agate "jewel" deserved a proper setting in history.

These have included first Capt. James H. Cook; then his son, Dr. Harold Cook; and now his gracious widow and executrix, Mrs. Margaret Cook, and his daughter, Mrs. George Hoffman.

Their opinion is shared by the Advisory Board of National Parks, Historic Sites, Buildings and Monuments; by Howard Baker, of Omaha, regional National Park Service director, the Department of the Interior; and by Senator Hruska, who is handling the legislative mechanics.

Captain Cook, a member of Nebraska Cowboy Hall of Fame, first sighted the fossil area around 1878 and returned in 1886 to establish as his home, the Agate Springs Ranch, after giving up a nomad life as a frontiersman, soldier, hunter, confidante of the Sioux Indians and Chief Red Cloud, and a cattleman who knew where the grasses were best. A year later was born his son, Harold.

Dr. Harold Cook, the son, was to become an eminent rancher, geologist, paleontologist, and scientific writer.

Discovery seems inbred in the Cook bloodline—going back to their ancestor, the English navigator, James Cook, who discovered Australia and Hawaii, and who circumnavigated the globe in 1768-71.

Captain Cook, riding one day, dismounted and climbed a steep hill to learn what was glinting in the sun. He saw bone fragments which seemed to be of Indian graves. Closer examination revealed they were petrified bone fossils whose cavities had filled with tiny calcite crystals. Dripping mineral water had replaced decaying bone and marrow, leaving a mineral impression.

Dr. Harold Cook was only 5 when he first helped University of Nebraska Prof. E. H. Barbour remove a large "corkscrew" from a butte area. At 17, he helped O. A. Peterson of the Carnegie Museum remove specimens from Carnegie Hill. At 18, alone he found the *Syndyoceros cooki* skulls named for him by Professor Barbour.

Other finds claimed by Cook include the skull of a musk ox (hairy beast found only in Arctic regions and indicating a cold period of Nebraska climate), a cousin of the three-toed horse which stood 7½ feet high, spindle-shanked camels (ancestors of the llama), alligators and crocodiles, and birds of a type never before found north of Mexico.

Cook also claimed fossils of seeds and grass found near animal fossils indicated a subtropical climate as the Nebraska region emerged from the sea some 60 million years ago.

At 19, Harold Cook was helping Amherst, University of Nebraska, Carnegie, and Yale collect specimens from deposits. At 20 he went to the University of Nebraska.

At 23 he went to Columbia University where he studied and worked with the American Museum.

Family reasons compelled his return to the ranch where he homesteaded the quarry areas. But he continued his scientific interest, work, and writing until his death last September 30. He was also curator of paleontology at Colorado Museum of Natural History and first custodian of the Scotts Bluff National Monument.

He loved people. He and his wife, Margaret, made Agate a famed visiting place for traveling scientists and a clearinghouse for information on paleontology.

Both Captain Cook and Dr. Cook had envisioned the possibility of preserving the fossil treasures, for generations to come and of commemorating the early western and scientific pioneers. Dr. Cook took steps to protect in perpetuity access to the fossil quarries by a deed in 1955.

Thus the little "clearinghouse" for information at Agate Springs by its designation as a national monument may well become a world treasury of science and a clearinghouse of information for some 50,000 visitors annually.

[From the Lincoln (Nebr.) Journal, May 5, 1963]

UNIVERSITY, MORRILL HALL HAD AGATE FOSSIL ROLES

Some 300,000 visitors annually touring the University of Nebraska State Museum at Morrill Hall in Lincoln in variably stand and ponder the infinity of time at the many glassed exhibits of fossils.

While all of Nebraska is in one sense a fossil quarry, the State museum devotes more display space to fossils collected from the proposed Agate Fossil Beds National Monument than from any other Nebraska location.

These fossils are on display at Morrill Hall from 2 to 5 p.m. Sundays, and 8 a.m. to 5 p.m. weekdays.

Indeed, the history of the Agate fossil quarries and the State museum are inseparably intertwined. One of the two twin quarry hills at Agate is named University Hill for the University of Nebraska.

Dr. Erwin H. Barbour, second director of the State museum, was first to collect fossils from the Agate area when in 1892 he found the famed "corkscrew" tunnels engineered by prehistoric beavers.

It was Dr. Barbour who gave Dr. Harold Cook as a young boy his first lessons in fossil collecting and paleontology. And it was Barbour who named the four-horned deerlike skeleton *Syndoyoceras cooki* in honor of the 17-year-old boy, Barbour's youthful helper, who first collected its skull. This was a find that gave meaning to other unidentifiable skeleton parts which Barbour had found in removing his large "corkscrew" in 1892. It was Dr. Barbour who named University Hill and Carnegie Hill at Agate.

To know Barbour was to fall under the spell of a scholarly gentleman with a distinctive goatee, an intellectual from the East who had graduated from Yale.

Dr. Cook's relationship with Dr. Barbour is described by his widow, Mrs. Margaret Cook:

"Harold greatly admired and loved Professor Barbour, who was his early mentor and sponsor in his formative years. He considered Dr. Barbour one of the most versatile and well trained and gentlemanly of men. There was never anything but friendship between them and the appreciation of two fine scientists who mutually knew and respected each other."

Dr. Barbour invited young Harold to be an instructor at the University of Nebraska in beginning geology when Cook was only 20 and even before Cook himself had registered as a student to attend the University of Nebraska.

Discovery and collection at the Agate quarries was at its peak between 1904 and 1910.

The outcrop at "Carnegie Hill" was first seen by the Wyoming territory geologist, later in 1891 by University of Nebraska students under Professor Barbour. O. A. Peterson, of Carnegie Museum, was first to collect at "Carnegie Hill" in 1905.

That same year Barbour, also head of the Nebraska University geology department, and four of his students arrived to collect fossils on funds provided by Charles H. Morrill, of Lincoln, for whom the building housing the State Museum is named—Morrill Hall.

Here was an awkward situation. Peterson was collecting on "Carnegie Hill" so Capt. James Cook suggested Barbour collect on the adjoining "University Hill." An intense rivalry developed on the two hills only 100 yards apart, as the two university groups competed for discoveries.

Peterson came within a wagon team of defaulting the field to Barbour, Nebraska, and Yale, whose Peabody Museum Barbour also aided.

Peterson had not expected much when he rode out on a saddle horse inspection so, according to stories Dr. Cook told his widow, he instructed his boy assistant to have the wagon hitched for an early departure. When he got to the hill and saw a new rhinoceros type in the fossil lode, he raced back to the ranch, shouting to his boy: "Put the team in the barn. We aren't going anywhere."

Later Amherst, the American Museum of Natural History in New York, University of Chicago, Harvard, Princeton, Colorado Museum of Natural History, and the U.S. National Museum collected from the quarries.

A period of joint cooperation and rivalry followed. The first and best material was usually kept by each discoverer, with duplicating material being divided up. It is the University of Nebraska's feeling that the best material remained at this university.

Only the surface was skimmed. Dr. Cook himself estimated that 95 percent of the fossil material still remains in the quarries at Agate.

This Agate material became the heart of the developing State Museum and along with Dr. Barbour gave it international reputation. Fossils from Agate can be found in the British Museum at London and around the world.

Fossils from Agate are also on display at the university's Trailside Museum at Fort Robinson, 55 miles from Agate. The Trailside Museum is an adjunct of the State Museum at Lincoln.

The Nebraska University board of regents in 1871 started the State Museum with an appropriation of \$1,000 (out of the total \$24,000 university budget) under Samuel Aughey, a biologist and geologist, who was titled "curator of the cabinets."

Dr. Barbour, who died in 1947, was the second director, from 1891 to 1941.

The present director, Dr. C. Bertrand Schultz, is the third director in the 92-year history of the famed State Museum which Henry Ford II has labeled the "most underpublicized, worthwhile museum in America."

Under Dr. Schultz, the museum has rapidly expanded and its exhibition techniques and its scope have enlarged. During the late 1930's, Dr. Schultz had as many as 90 men working in the field and it was not uncommon for him to return with 300 boxes for mounting or exchange with other museums.

Today the museum's displays and vertebra fossil collection have earned it a rating as one of the world's leading institutions.

[From the Grand Island (Nebr.) Independent, May 8, 1963]

FOSSIL BED PRESERVATION AIM OF HRUSKA'S MOVE

(By Robert A. Hunt, Associated Press special service)

WASHINGTON.—The Agate Fossil Beds National Monument would be established in Nebraska under a bill introduced Wednesday by Senator Roman L. Hruska, Republican, of Nebraska.

He said the proposal would "preserve an important link with the Old West, and at the same time present to all America one of the most amazing prehistoric fossil beds ever discovered."

The bill, cosponsored by Senators Carl T. Curtis, Republican, of Nebraska, and Milward L. Simpson, Republican, of Wyoming, would establish a 3,150-acre monument area in Sioux County, about 45 miles north of Scottsbluff.

"This is a classic paleontological site well known for its wealth of miocene fossil mammal bones," Hruska said in a prepared Senate speech supporting his proposal.

"The great paleontologist, the late Henry Fairfield Osborn, has called it the most remarkable deposit of mammalian remains of tertiary age ever found in any part of the world.

"The fossils are not only abundant and comprise a wide variety of species, but they are remarkably well preserved. The area has been the scene of scientific research since 1871."

The bill would authorize an appropriation to establish the monument but does not set a specific amount. The area would be administered by the National Park Service.

Hruska said the Agate Springs fossil quarries are located on a ranch which was owned by the late Dr. Harold J. Cook. His great-great-grandfather was the famous English explorer, James Cook.

The Senator noted that Dr. Cook's widow has agreed to donate to the Government Indian artifacts and wearing apparel, a paleontological library and western gun collection for exhibit at the monument if its establishment is assured before January 1, 1967.

Hruska said Mrs. Cook also has expressed a desire to donate land for a Park Service headquarters near the monument site.

Hruska, speaking of the proposed monument, told the Senate:

"Although the site has been explored, off and on, by scientists for many years, numerous representative remains can still be found within the large untouched portions of the hills containing the quarries. It is estimated that at least 75 percent of the fossil-bearing portions of these hills is undisturbed.

"In addition to serving as a place for exploration, research, and scholarship, the monument will provide visitors with visible evidence of the fossil skeletons of many creatures as they were over 15 million years ago.

"Furthermore, the monument through the use of interpretative display techniques will enable the visitors to associate themselves closely with the Old West."

[From the Alliance Times-Herald, May 10, 1963]

WNUCC BACKS AGATE PROJECT

(By Gene Kemper, publisher of the Times-Herald)

NORTH PLATTE.—The full momentum of the Western Nebraska United Chambers of Commerce Thursday was placed behind legislation now in Congress that would create the Agate Fossil Beds National Monument in Sioux County.

By unanimous ballot, the directors approved a resolution to be sent to the Congress, the Department of the Interior, and other governmental agencies which might speed along the bill introduced this week by U.S. Senator Roman Hruska. The resolution advocates a Federal appropriation of \$1,750,000 as proposed by the National Park Service to develop the 3,130-acre project.

The resolution, introduced for the Harrison Men's Club by the publisher of the Times-Herald, sets out that such a national monument would appropriately memorialize (1) the greatest prehistoric fossil deposits in the United States; (2) pioneer ranching in Nebraska; and (3) frontier days of the Indian wars as characterized by the late Capt. James H. Cook and his descendants.

The scientific work of his son, the late Dr. Harold J. Cook, has attracted paleontologists from all over the world to Agate, the resolution points out. And priceless remains of prehistoric animals, determined to be more than 21 million years old, now have found their way in museums of all five continents—and 75 percent of the deposits still are unexplored.

Mrs. Margaret C. Cook, widow of the doctor, has offered to contribute his valuable collection of artifacts and to otherwise cooperate wholeheartedly in the establishment of the monument, the resolution stated.

In other business, Thane Davis, member of the State highway advisory commission from Hyannis, invited member WNUCC communities to send interested delegations to Kearney on May 28 to observe operations in the construction of the interstate highway. The demonstrations, led by project engineers, will include observations at various stations showing all phases of construction work by the State department of roads. The statewide event will start with a noon lunch at Kearney according to tentative plans, Davis said. Also present to assist with extending the invitation was Kirk Mendenhall, North Platte member of the commission.

President John Elwell, of Sidney, reported to the directors that the WNUCC, by action of its executive committee, had contributed \$100 to the Nebraska State Chamber of Commerce toward the expense of producing the controversial film on "functional" procedures of the Unicameral Budget Committee.

The South Platte united chambers and several individual members of the WNUCC, including Alliance, have not contributed to the film's expense. The film was produced and distributed by the State chamber upon approval of its executive committee.

The Chadron Chamber of Commerce was awarded the July 12 meeting, where an outdoor picnic event is planned in Chadron State Park. Following the business meeting, held in Buffalo Bill Cody's horse barn, the directors toured other portions of Cody's former Scout's Rest Ranch and then held their dinner meeting at the lodge on Lake Maloney.

Senator HRUSKA. Also, a resolution of the Western Nebraska United Chambers of Commerce.

(The resolution referred to follows:)

RESOLUTION OF THE WESTERN NEBRASKA UNITED CHAMBERS OF COMMERCE

Whereas U.S. Senator Roman Hruska has introduced legislation that would establish Agate Fossil Beds National Monument at Agate, Sioux County, Nebr.; and

Whereas the Agate fossil beds contain species of prehistoric animals dating more than 21 million years ago when western Nebraska was the convert into the floor of a vast sea; and

Whereas the world's paleontologists have beaten a deep path to these Agate fossil beds since 1871 and have filled museums around the five continents with priceless treasures therefrom; and

Whereas more than three-fourths of these fossils remain unmined and will be the object of scientific exploration and research for generations to come; and

Whereas such a national monument would be a fitting reward and remembrance of the late Capt. James Cook, a famous scout for U.S. troops during the Indian wars; to his son, the late Dr. Harold Cook, whose untiring efforts in assisting world scientists to explore the fossils in Carnegie Hill, University Hill, and Amherst Point; and to the widow of Dr. Cook—Mrs. Margaret Cook—who is carrying on the great work of her husband and has promised to cooperate in the building of the monument by contributing many valuable museum pieces of the Cook family: Now, therefore

This date at North Platte, Nebr., the Western Nebraska United Chambers of Commerce has unanimously endorsed the legislation introduced by Senator Hruska and cosponsored by Senator Carl T. Curtis, and respectfully asks the Congress of the United States to appropriate sufficient funds to memorialize this picturesque, historic, and scientific 3,150 acres by making it a national monument.

JOHN W. ELWELL, *President.*

Senator BIBLE. At this point, I would like to insert in the record a statement by Senator McGee.

(The statement referred to follows:)

STATEMENT OF HON. GALE MCGEE, A U.S. SENATOR FROM THE STATE OF WYOMING

Mr. Chairman, I would like to thank the committee for its courtesy in receiving this statement.

I am very proud to be a sponsor of S. 1481, a bill to establish the Agate Fossil Beds National Monument at the famous Agate Springs fossil quarries in western Nebraska, not far from the Wyoming border.

These fossil beds are considered by many scientists to be the most significant and concentrated beds of their kind in the Nation. The bill would make sure that these beds are preserved for further study and would make the remains of this most interesting of the ancient geological ages accessible for the public in an orderly fashion so that the layman could see and appreciate this era in the development of the western plains.

The development of a national monument here would also help in the preservation of a great many Indian artifacts in the area. I note that the present owner of the Agate Springs Ranch, Mrs. H. J. Cook, has graciously offered to donate her extensive and famous family collection of Indian materials to the Government when this bill becomes law.

The Park Service informs me that no where else in its system of parks and monuments are there preserved fossils and artifacts similar to those at Agate Springs so this monument would not duplicate in any way existing facilities.

I believe it is one of the duties of Government to assist in the preservation of our national heritage and to assure an orderly approach to scientific investigations of our past. The understanding which our children and grandchildren will have of our history and prehistory will depend upon how well we do that job. In this bill we have an excellent opportunity to preserve an area of tremendous historic value for our posterity. And I need not remind the committee of how fast our onrushing civilization swallows up our natural heritage unless firm and constructive steps are taken to save it.

I am convinced that the Agate Fossil Beds National Monument would be one of the most interesting and most visited historic sites between the Mississippi River and the Rocky Mountains and I urge this committee to give this bill favorable consideration.

Senator HRUSKA. Mr. Chairman, we have several witnesses here, in addition to my colleagues, one of the cosponsors of this bill, Senator Curtis. We have Congressman Martin. We also have Mrs. Cook, the widow of Harold J. Cook, who is the present occupant of these premises, and of that famous ranchhouse there. Also, Dr. Malcolm McKenna, now associate curator of the American Museum of Natural History, who has been there since 1960. He is also assistant professor of geology at the Columbia University.

And, of course, we have Mr. Fredine, of the National Park Service, who will testify as to the details, the program of development, and the nature of the proposed monuments.

I am very grateful for this opportunity to appear here.

If there are any questions which my knowledge of this subject would permit me to answer, I will be happy to subject myself to the mercies of this committee.

Senator BIBLE. Where is the ownership of the 3,150 acres now?

Senator HRUSKA. I think principally in the immediate decedents of Captain Cook. And they are, I think, five in number.

There are some other owners on the fringes.

It is my undersanding there will be no difficulty in the acquisition of the land.

Mrs. Cook is the life tenant of the premises, so she has no residual interest in the land.

Senator BIBLE. What actual use is made of this property at the present time?

Senator HRUSKA. Ranching purposes. Except that good care has been taken of the two hills that are the principal focal points for the exploration for these things.

They have been well protected from the ravages of the grazing of cattle or otherwise. And it has been in very sympathetic hands all these years. But we foresee the time when it may drift into divided ownerships, and perhaps ownerships that are not as sympathetic as the previous ownerships have been for the preservation of the premises.

Senator BIBLE. The Senator from New Mexico.

Senator ANDERSON. I will wait for the witnesses. I think this is a different type of venture than the one we had earlier today. We have several of the western ranches that have been retained for their trading post values. This is a wholly different subject. And I am very happy to have you present it. I think this sounds interesting.

Senator HRUSKA. It is different in that respect, Senator Anderson, because it has a deep and a world renowned historical interest. And, to that extent, it is very, very different.

I might say, however, that there is one thing that is dear to the hearts of Nebraskans in this, and it is made possible by Mrs. Cook's generosity.

During his lifetime, Captain Cook collected a great many artifacts, valuable and unusual Indian artifacts. For example, the ceremonial jacket of Red Cloud, the famous Indian chief, is among them. All of this, together with the library collected by Mr. Cook during his lifetime and other mementos, including the ranchhouse, are being contributed, donated to the National Park Service, to the Government of the United States by Mrs. Cook.

Now, that furnishes, of course, a point of interest for the visitors center, which will enrich that point as a visitors attraction. That would be in addition to the scientific attraction that would be there for scholars from all over the world.

She is desirous, however, of making the thing move along. Nebraska is celebrating its centennial in 1967. And she put in the tentative agreement she made with the Park Service that she would like to have this materialized at this time in order to make this gift effective. I imagine that might well be elastic to a point. But certainly it is put there not to be dictating the timetable, but for the purpose of indicating that this should probably be followed up with some reasonable dispatch, and not be procrastinated upon too much.

Senator ANDERSON. Well, Senator Hruska, there is a proposal in Arizona to acquire the trading post of one of the Hubble family, Lorenzo

Hubble. At the time he died there was a very valuable library, a great many paintings, and there was a fine collection of Indian pottery, and things of that nature. They are still trying to dispose of it to the Federal Government on the basis of what he had when he died.

But I think Senator Goldwater, who is more familiar with it than anybody, would recognize a great many of the things have disappeared. That is the unfortunate thing of waiting too long to procure these historical mementos.

That gives some point to your remarks. Because if these are going to be acquired they should be acquired while they are together, and can be transferred to the Federal Government.

Senator HRUSKA. I can think of no one that is better as a custodian until that transfer is made than Mrs. Cook herself.

I might say that a good many of these things are already in the custody and possession of the National Park Service at the National Monument at Scottsbluff, located just 45 miles south. They are under proper care and are being classified.

So, since Mrs. Cook still occupies the ranchhouse, there will be good care taken of those things which will be turned over, I assure you.

Senator BIBLE. The Senator from Colorado?

Senator ALLOTT. I don't think I have any questions at this time, Mr. Chairman.

Senator BIBLE. Thank you.

The Senator from Alaska.

Senator GRUENING. No questions.

Senator BIBLE. The Senator from Idaho.

Senator JORDAN. No questions.

Our colleague opened up a very intriguing proposition here. I look forward with interest to the rest of the testimony.

Senator BIBLE. The Senator from Wyoming.

Senator SIMPSON. Mr. Chairman—Senator Hruska, do you have a copy of the agreement between Mrs. Cook and the Park Service? It might be well to insert it into the record—with respect to the acquisition of the artifacts and the gun collection, which is a very valuable gun collection.

Senator HRUSKA. I am sure the National Park Service would be glad to do that, and Mrs. Cook would be glad to cooperate. It is an agreement actually entered into. That would be very much in order.

(The agreement is printed on p. 35.)

Senator SIMPSON. I should like to insert in the record with the permission of the chairman some letters of commendation and recommendation from points in Wyoming adjacent to the Agate Monument.

Senator BIBLE. Without objection, that will be the order.

(The documents referred to follow:)

LUSK CHAMBER OF COMMERCE,
Lusk, Wyo., May 17, 1963.

Hon. Senator SIMPSON,
U.S. Senate, Washington, D.C.

DEAR SENATOR SIMPSON: It is the desire of the Lusk Chamber of Commerce to support your Senate file No. 1481 regarding the National Monument of Agate Fossil Beds located in western Nebraska.

Although located outside the State of Wyoming, a monument of such importance would undoubtedly bring many visitors to this section of our great

country. These visitors, in turn, are most important to the economy of any small town in any section of the country.

If there is any way in which we might help your effort for this national monument, please contact us at your convenience.

Sincerely,

ARTHUR LAUER,
Secretary, Lusk Chamber of Commerce.

NIORRARA ELECTRIC ASSOCIATION, INC.,
Lusk, Wyo., May 17, 1963.

HON. MILWARD SIMPSON,
U.S. Senate, Washington, D.C.

DEAR SENATOR SIMPSON: The Niobrara County Rural Area Development Committee of Wyoming is greatly interested in seeing the Agate Fossil Beds area made a national monument and we will greatly appreciate your support of Senate file 1481 which seeks to accomplish this.

Besides the importance of such a monument to the historical, educational, and recreational welfare of the Nation, we believe such a project is of great importance to the further economic development of our area. This monument may well become the most important stop on Highway 20, for example, between Chicago and Yellowstone Park.

Very truly yours,

NIORRARA COUNTY RURAL AREA DEVELOPMENT COMMISSION.
ARTHUR J. SCHNOSE, *Chairman.*

Senator ANDERSON. I was going to ask about the agreement, but I didn't want to ask about it publicly, because someone might think I was questioning it. But I am glad the Senator brought the question up, because it is very desirable that this be a part of the consideration.

Senator HRUSKA. It is indeed, Senator Anderson.

Mrs. Cook is in the hands of a very reputable and competent lawyer in Scottsbluff. It is he who initially wrote me the summary of the situation there, insofar as it pertains to this portion of it. He refers in his letter to this agreement, and describes it, and I am sure there would be no objection to attaching it to the record, together with the detailed listing of the nature and the quantity of the things that would go with it.

Senator ANDERSON. I notice in the book a picture of Captain Cook's revolver. It is a Colt Pacemaker. They are hard to find.

Senator HRUSKA. They are indeed. And this collection is one of the most outstanding of the artifacts of the early ranching days. And if any of the members of the committee are interested in exciting writing about early ranching days, and the cattle treks across from Texas up into the Kansas and Nebraska territory, "Fifty Years on the Old Frontier," is one of the best books that I have ever read, and I know each of you would enjoy it.

Senator BIBLE. I thank the Senator from Nebraska.

Our next witness is Senator Curtis.

STATEMENT OF HON. CARL T. CURTIS, A U.S. SENATOR FROM THE STATE OF NEBRASKA

Senator CURTIS. Mr. Chairman, I appreciate the opportunity to be here. I shall be brief.

First of all, I want to commend by colleague, Senator Roman Hruska, and the Member of Congress so ably serving my home district

in Nebraska, Congressman Dave Martin, for taking the lead in efforts to create an Agate Fossil Beds National Monument in Sioux County, Nebr.

I am proud to be a cosponsor of Senator Hruska's S. 1481, which you are considering today.

Extending along the scenic river, this area is rich in historic and scientific interest, and holds extraordinary educational value if properly preserved and developed. The natural wonders to be found there are irreplaceable, and should be protected. I will leave it to other witnesses, specialists in their field, to discuss the technical aspects of the proposal and to describe the scientific and historic features.

Incidentally, my colleague has already done a good job on that.

I do want to acknowledge with deep respect and interest the cooperation of Mrs. Harold J. Cook, of Agate, Nebr., without whose generosity this project could not have advanced this far.

It is my hope, Mr. Chairman, that the subcommittee will look with favor upon this proposal, and give it not only your formal approval but enthusiastic support.

Thank you.

Senator BIBLE. Thank you very much, Senator Curtis.

Questions of the Senator?

Our next witness is Congressman Dave Martin.

**STATEMENT OF HON. DAVID T. MARTIN, A U.S. REPRESENTATIVE
FROM THE THIRD DISTRICT OF THE STATE OF NEBRASKA**

Mr. MARTIN. Thank you, Mr. Chairman. It is a pleasure to be here.

I have introduced a companion bill in the other body, H.R. 6149, exactly the same as introduced by Senators Hruska and Curtis.

I have a brief statement, Mr. Chairman, which I would like to read.

The primary purpose of this legislation is to permit the National Park Service to take custody of and to preserve an irreplaceable natural phenomenon of great scientific value—the quarries and deposits containing the outstanding mammal fossil remains located at Agate Springs, Nebr., located in my congressional district.

It was an extraordinarily fortunate accident of history that, early in the history of western Nebraska, these fossil deposits were first discovered by a man who had the imagination and the understanding to see the tremendous importance of preserving them and investigating their scientific importance in an orderly way—Capt. James H. Cook, Indian scout, frontiersman, later a well-known author, and direct descendent of the famous English explorer, James Cook, who explored the shores of the Pacific and in 1768–71 circumnavigated the globe.

Captain Cook soon acquired the property on which this discovery was found, brought it to the attention of leading paleontologists, and, in effect, converted Agate Springs Ranch into a headquarters for the scientific study of these unique deposits.

His son, Dr. Harold J. Cook, not only maintained this family tradition, but was himself a noted paleontologist and authority on the fossils, and the author of numerous careful studies in the field of paleontology. Dr. Cook died in 1962.

Since 1891, these deposits have been the object of repeated scientific explorations by a dozen leading institutions: Carnegie Institute, the American Museum of Natural History, the Chicago Natural History Museum, the Smithsonian Institution, the Colorado Museum of Natural History, Amherst College, the Universities of Nebraska, Chicago, Kansas, Michigan, Princeton, Yale, and many others. In other words, since their discovery they have been carefully preserved and safeguarded so as to be of maximum value from a scientific standpoint.

Now, following Dr. Cook's death, it is proposed that the Nation take over the duty of preserving these unique deposits and making them available for the instruction of the public and for further scientific study.

I strongly support this legislation in order to make sure that these irreplaceable deposits will be preserved for posterity.

Thank you, Mr. Chairman.

Senator BIBLE. Thank you very much, Congressman Martin.

Any questions of the witness?

Thank you very much, Congressman. Delighted to have you with us this morning.

Did you have witnesses you would like to have us hear now?

Senator HRUSKA. Could we call on Dr. McKenna at this time?

Senator BIBLE. Dr. McKenna.

Senator HRUSKA. To be followed by Mrs. Cook, and then I believe the Department of Interior representatives.

Senator BIBLE. Very fine.

We are very happy to accommodate the witnesses you have brought here this morning.

Please identify yourself for the record.

STATEMENT OF MALCOLM C. MCKENNA, AMERICAN MUSEUM OF NATURAL HISTORY, COLUMBIA UNIVERSITY, NEW YORK, N.Y.

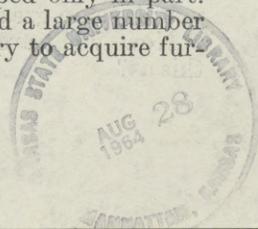
Mr. MCKENNA. Dr. Malcolm C. McKenna, American Museum of Natural History, Columbia University, New York City.

Mr. Chairman, and members of the committee, the scientific world has long regarded the Agate Springs area as unique. The collections that have been made there are enormous. The museums of the country have worked there at one time or another almost continuously since 1904. There has been great interest in the paleontological profession in Agate, Nebr., all through the years. It continues to be a major center of research.

And it is far from being exhausted. There are so many fossils to be found in that particular part of Nebraska that institutions can work there year after year, and hardly dent the exposures.

There are three main areas. Two of them are close together, several miles east of the present ranch headquarters at Agate, a third site is several miles farther to the east. You can see it at the far right.

These are three quarries which have been developed only in part. The reasons for that are that after you have acquired a large number of skeletons of fossil mammals, it becomes unnecessary to acquire further material.



Many museums, therefore, have enough material from there, and the main hope would be that these sites could be developed to show the public the fossils as they are in the rock. A few specimens, of course, could be obtained and mounted, mounted skeletons, to be displayed to the public on the site. But the main value of this would be to show the public the way that animals have become entombed in the rocks in the past, the kinds of unique extinct animals that once roamed this part of Nebraska, giant pigs with skulls almost 3 feet long, small rhinoceroses with a pair of horns side by side on the end of the nose; horses are there, but of a rare occurrence; there is an animal that is related to the horse but has claws instead of hoofs.

I think the public would be intrigued with these animals. They would be an instructive exhibit of the way that animals have occurred in the past in the United States.

The deposits are themselves a record of the changeover from subtropical climate to a more grassy environment, about 20 million years ago or 15 million years ago.

There is much geologic history to be seen in the area. The structural development of western Nebraska could be well shown at this site.

One of the plans is to build an exhibit which would give the public the idea of actually being underground and seeing how these fossils are lying in the rock. The fossils are so thick that in some places it is difficult to find rock. There is a mass of bones, tumbled together—many skeletons, literally hundreds and thousands of skeletons are jumbled together at what must have been some ancient disaster. Perhaps there was a prairie fire which drove these animals along, and they might have gone off of a steep enough cliff that they were all killed as they dropped down into a bed of a stream.

Perhaps this is an example of a bed in a stream that has dumped carcasses of animals. We don't really know.

But it would be a marvelous opportunity to show the public what has gone on in the past from a geological and paleontological point of view.

Senator BIBLE. How thoroughly is this section developed up to the present time?

Mr. McKENNA. At the present time, I would estimate that the quarries are perhaps one quarter developed. There are two major hills, known as Carnegie Hill and University Hill, which are perhaps 2 to 3 miles east of the ranchhouse shown in the circle at the left.

The deposit goes all the way through these hills. You can find bones outcropping all the way around the outside of these hills. They are, of course, richer in some places than in others. But the implication is that these go right through the hill. And an estimate of the number of individual bones or skeletons has been made on that basis.

Like most mining, it gets richer as you mine. And this has been the experience so far.

Senator BIBLE. For the record, would you indicate how you develop an area such as this? This is a completely new field to me. Do you get permission of the owners? Do you pay the owners if you take out the skeleton of a dinosaur, or a lizard—how does that work? How do you develop great paleontological areas such as this?

Now, what area are we talking about? What area do you classify this as?

Mr. McKENNA. Well, these three sites have been within the jurisdiction of the Cook family, and they have not only been generous, but very interested in this work, and have always given anyone from a reputable scientific institution permission to quarry.

Now, by quarrying, I mean to remove the overlying rock down to the layer where the bones are lying in the rock. And then these trenches are made around—usually around huge blocks of mingled bones and sandstone. And the block is then covered with plaster of paris, or some other preservative, and then comes the difficult task of sawing under this. One way to do that is with barbed wire. It has to be done delicately. If you can imagine a two man saw consisting of barbed wire—these can be cut underneath and carefully preserved, crated, and then finally shipped away to various parts of the world.

Most of the major museums of the world have blocks on display with large masses of skulls, skeletons, and the deposits are only barely dented.

It is so immense a deposit that all the museums of the world, I suppose, could work in the area for quite awhile, and not exhaust it fully.

Senator ANDERSON. Where are these exhibits mainly now?

Mr. McKENNA. Pardon me, sir, I didn't hear you.

Senator ANDERSON. You say a great many things have been taken out. Where were they put?

Mr. McKENNA. The American Museum of Natural History has on display perhaps four or five cases of fossil mammals from this site. The Carnegie Museum in Pittsburgh has perhaps even more material. Yale University, at the Peabody Museum of Natural History, has a large display. The University of Nebraska has a large display. The Los Angeles County Museum has a display. I don't recall the size. The Colorado Museum of Natural History in Denver has a very large display of fossils from Nebraska. The British Museum has a block from there. I don't recall whether there is a block on display in Paris. There are a good many specimens that have been shipped throughout the world.

Senator BIBLE. What period of time does this represent? How many years ago are we talking about?

Mr. McKENNA. The rocks exposed in the vicinity of Agate range in age from about 25 million to about 15 million years ago. This would be during the middle of the age of mammals, as we call it. It is a time when the animal life of the United States was much more diverse and the climate was more equable than it is at the present time.

Senator BIBLE. The Senator from Colorado?

Senator ALLOTT. I have no questions.

Senator BIBLE. The Senator from Alaska?

The Senator from Utah?

Senator MOSS. I have no questions, Mr. Chairman.

Senator BIBLE. The Senator from Idaho?

Senator JORDAN. Dr. McKenna, are you familiar with the way the development cost item of \$1,902,000 was developed?

Mr. McKENNA. Only very slightly, sir.

Senator JORDAN. We will get other witnesses on that.

Mr. McKENNA. I omitted one thing.

Senator BIBLE. Yes.

Mr. McKENNA. I forgot to mention the Smithsonian Institution, which has a large display of fossils from Agate.

Senator ANDERSON. It is a good thing you put that in.

Senator BIBLE. Where are there other beds similar to this in the United States? Dinosaur National Monument?

Mr. McKENNA. There are no other beds similar to this. There are no deposits containing the unique fauna exposed there which have large quantities of these remains.

Dinosaur National Monument is similar in that there are animals entrapped there—in this case reptilian dinosaurs for the most part.

The dinosaurs exposed there are, of course, a great object of wonder and excitement to those who visit the area. It would be hoped that Agate would be developed in a similar way. But the subject matter this time would be mid-Tertiary fossil mammals of perhaps 15 to 20 million years of age.

Senator BIBLE. For a man in your profession, this is a great fossil quarry?

One of the greatest in the United States?

Mr. McKENNA. Yes. Professor Osborn once stated that this was, in his opinion, unique, and I would second that opinion, perhaps 30 or 40 years after Osborn made that statement. In other words, even since—well, in the last 60 years, there have been no comparable deposits discovered anywhere in the United States.

Senator BIBLE. How about the Western Hemisphere?

Mr. McKENNA. I know of none. I do know of a similar one in Africa.

Senator BIBLE. The Senator from Colorado.

Senator ALLOTT. Just one question. This is just a matter of curiosity more than anything else.

The Dinosaur National Park deposits, then, predate this? This is Tertiary period?

Mr. McKENNA. Yes; the Dinosaur National Monument deposits are Jurassic in age. That is the middle part of the age of reptiles, and would be perhaps 150 million years ago. And there were mammals at that time, but they were small and rat-sized. Then about 60 million years ago, the mammals began to expand and diversify. And by 20 million years ago, we had in the United States horses, camels, rhinoceroses, and ultimately even elephants were present in the United States.

Senator ALLOTT. There is a difference in these two deposits entirely—in their purpose, their knowledge, what they produce?

Mr. McKENNA. Yes; the difference would be that this would be a unique record of the Tertiary life of the United States—in fact, of the whole Western Hemisphere.

Senator ALLOTT. Thank you.

Senator BIBLE. The Senator from Wyoming?

Senator SIMPSON. Dr. McKenna, just for the record, would you agree that Dr. Harold J. Cook had already won an international reputation as a distinguished scholar in the field of paleontology before his death, the former owner?

Mr. McKENNA. Yes, sir.

Senator SIMPSON. That is all.

Senator BIBLE. Thank you very much, Dr. McKenna.

If there are no further questions, we will proceed with our next witness.

Senator Hruska, you indicated Mrs. Cook was here.

We are very happy to have you appear before us today, Mrs. Cook. It must be a very interesting and exciting life you live out there, in the northwest section of Nebraska. We are delighted to welcome you here today.

STATEMENT OF MRS. MARGARET C. COOK

Mrs. Cook. This is not a written statement. This is simply off the cuff, as you might say.

I am a most inadequate representative of Harold, but a very devoted one. Harold, of course, was a distinguished paleontologist. I spent 35 years with him in the field, and as his secretary. And my degree happens to be in music. I am not a geologist or a paleontologist, but I loved Harold, and I worked with him. And I am carrying out to the best of my ability his wishes, and the wishes of his father. They were very farsighted people. They both envisioned this museum, and the preservation of the quarries. And I have, of course, given the Indian collection and the gun collection and historical collection—we have a historical library. All the contents of the house, which are mine personally to give, go to the National Park Service.

I have so provided in my will. And I have done everything, as I say, to carry out the wishes of my distinguished and beloved husband and his father.

Senator BIBLE. Well, that is a very touching statement, Mrs. Cook.

It is an indication of your dedication, and your attempt to preserve something for many, many years to come of this great work of your husband and his father before him.

Senator Anderson?

Senator ANDERSON. Well, we recognize he got his start in New Mexico as a cattleman.

Mrs. Cook. Yes, indeed.

Senator ANDERSON. We have a peak in New Mexico, called Cook's Peak.

Mrs. Cook. Really? That is not named for Captain Cook; is it?

Senator ANDERSON. My understanding is that it is.

Mrs. Cook. Well, that is very interesting. Thank you for telling me.

Senator ANDERSON. And he was—I am trying to connect him up—was he not with the Red River Land & Cattle Co. at one time?

Mrs. Cook. He was the manager of the CS & WS Ranch, down near Alamo. And the Apaches were so bad that the CS people, who were Britishers, sold the ranch and established the WS Ranch which is now adjoining the famous CS Ranch, which is the Springer spread.

Senator BIBLE. The Senator from Colorado.

Senator ALLOTT. I would only say this: I don't know what forces of fate put Captain Cook in possession of this land, but I would say that from the scientific standpoint the world is very fortunate that this happened to land in your family's hands, because I am not worried about the depredations of cattle and livestock—what they would do to these hills is nothing compared with what tourists would do if they once got into them.

It might be interesting, as a matter of record—How did Captain Cook happen to land in this particular place, or did he get this interest in these fossils after he got there, or what?

Mrs. Cook. I am glad you asked that, because it is a fascinating story.

Captain Cook was delivering a herd of wild Texas cattle from Ogalalla to Camp Robinson, to the Indians at Camp Robinson. And, of course, he rode past those hills. He was 17 years old. This was in 1874. He was 17. And he rode past those hills. But he always had an interest in that sort of thing. He spied these fossils, saved them.

Later on, he left the trail at Ogalalla and became a hunter out of Cheyenne. He sold his wild game to the hotels on the Union Pacific. And his father-in-law, who was an early-day physician in Cheyenne, wanted to establish a ranch. He asked the mayor of Cheyenne, who at that time I think was Mr. Reel—Hector Reel, I think—and he and Portugee Phillips took Dr. Graham—

Senator SIMPSON. Mrs. Cook, tell them who Portugee Phillips was. They probably know.

Mrs. Cook. Yes. Took him there and said this is the best grazing land we know of in the country, water, springs, and a fine valley, grass for animals. And so the doctor established his ranch. And, of course, Captain Cook, when he married the doctor's daughter, bought the ranch.

Senator ALLOTT. That is very interesting.

Again, I repeat, I think it is fortunate that this has been preserved in the way it has.

Senator BIBLE. The Senator from Alaska?

The Senator from Utah?

Senator MOSS. No questions.

Senator SIMPSON. Mr. Chairman—Mrs. Cook, Capt. Jim Cook was a one-time resident of the State of Wyoming, too.

Mrs. Cook. Yes, indeed;

Senator SIMPSON. Mrs. Cook wrote a very interesting statement on the history of fossil collecting in that area. Would you have any objection my asking unanimous consent that this be made a part of the record?

Mrs. Cook. Not at all.

(The statement referred to follows:)

STATEMENT BY MARGARET C. COOK ON THE FOSSIL COLLECTING HISTORY IN THE
AGATE SPRINGS FOSSIL QUARRIES AREA

CARNEGIE AND UNIVERSITY HILLS

About 1878 James H. Cook noted fossils eroding out of the outcrop on what is now known as Carnegie Hill. He showed the outcrop to Professor Bailey, territorial geologist for the State of Wyoming, in the early 1800's. In 1891, some students from the University of Nebraska, under Prof. E. H. Barbour, visited the fossil hills but did not have time to collect there.

In the early 1900's Dr. J. B. Hatcher of Princeton University, who had been collecting dinosaurs in eastern Wyoming in the Lance Creek country, came down into northern Sioux County with his brother-in-law, Mr. O. A. Peterson, who at that time was collecting fossils for the Carnegie Museum of Pittsburgh, which had recently been built. James H. Cook happened to meet them in Harrison, and told Hatcher about the fossil deposit near Agate, which he had shown to Professor Bailey. At that time Peterson and Hatcher were engaged in taking out some skeletons in the Sioux County Badlands. It was near the end of the season, and they wanted to finish up, so they did not come that year.

Dr. J. B. Hatcher died in 1904, but O. A. Peterson came to Agate toward the end of the summer, driving a team and a light spring wagon. They stayed overnight with the Cook family, and the next morning Peterson with a boy assistant hitched up the wagon and team and the boy drove down to the quarry hills about 3 miles. Harold J. Cook, then 17 years old, rode down with O. A. Peterson on saddle horses from the ranch. They reached the hill where Harold had seen fossil bones while herding cattle. After preliminary inspection, Peterson, greatly excited, rode back with Harold to the ranch. He shouted, when he came in sight of the boy with the team and wagon, "Put the team in the barn. We aren't going anywhere."

Under Peterson's direction, Harold and the boy started to work, and uncovered a few bones. But Peterson soon saw that it was a rich quarry, containing a type of rhinoceros that was, apparently, new to science. On mature study this proved to be the case.

Harold had watched Professor Barbour take out a large *Daemonelix* from a blown out pocket about half a mile north of the ranchhouse. This *Daemonelix* proved to be remarkable in that it enclosed part of a skeleton of a creature called *Syndyoceros cooki*, a four-horned antelope of the same race as the type which Barbour had named for Harold, who had collected it and given it to the University of Nebraska in 1905. Harold spent all of the time he could spare with Peterson at the quarry. Peterson was one of the best collectors of fossils in the country at that time. He collected at the Agate Springs fossil quarries for many years. It was O. A. Peterson who opened the quarry in the big hill and it was named Carnegie Hill, later, by E. H. Barbour.

At the same time that Peterson was collecting, Professor Barbour of the University of Nebraska wrote to James H. Cook, asking permission to come to Agate and collect fossils. Barbour was head of the department of geology at the university, and had been given funds with which to collect by the Honorable Charles H. Morrill, of Lincoln. This made a somewhat awkward situation, but in view of the fact that there were two distinct hills and great quantities of bone, James H. Cook invited Barbour to come and collect fossils also. He had no notion of the intense rivalry that would develop as a result of this coincidence. In 1905 Barbour and four students came to Agate and opened a quarry in the side of a hill about 100 yards north of Carnegie Hill. Barbour named this hill, "University Hill," and both institutions worked their respective quarries for a number of collecting seasons.

Professor Barbour, who was a Yale graduate, arranged, with the consent of James H. Cook, to have Yale University come to the Agate Springs fossil quarries to collect. The head of the department of paleontology, Prof. R. L. Lull, came with his chief assistant, Hugh Gibb, and they made a fine collection for the university.

In 1906, Prof. F. B. Loomis of Amherst College, an early, able, and active paleontologist, joined the collectors with a good-sized party of advanced students.

About 1910 James H. Cook was on the Executive Committee of the American Livestock Association, and happened to be in Omaha at one of their meetings. A friend on the same committee said he had a nephew who was a bone shark, and who would like to come to Agate. He asked if it would be all right, and James H. Cook answered that any nephew of his would be welcome to come to his place. The nephew turned out to be Prof. Henry Fairfield Osborn, president of the American Museum of Natural History, New York. Osborn wrote a letter to James H. Cook thanking him for his invitation to come and collect at the Agate Springs fossil quarries. That summer several of the museum's top technicians and scientific men came to the site. The chief collector for the American Museum of Natural History was Albert Thomson, born near Hermosa, S. Dak. Thomson collected at the quarries for the American Museum for over 30 years.

Dr. F. B. Loomis, of Amherst, collected in a small hill which turned out to be a comparatively minor deposit, which he called Amherst Point. The Field Museum of Natural History (now the Chicago Museum of Natural History) collected at the quarries. Other institutions who sent collecting parties in later years include: University of Chicago, Harvard University, Princeton University, the Colorado Museum of Natural History, the U.S. National Museum, under Dr. J. W. Gidley, and many others.

THE "STENOMYLUS" QUARRY

During the summer of 1907 the Amherst College field party, prospecting about 5 miles to the southeast of the Agate post office, about one and a half miles east and south of the Agate Springs fossil quarries, found fragments of a *Stenomylus*

smaller than the *Stenomylus gracilis* then known. During that season a few shattered fragments were collected; but, on returning the next season, the same levels were further excavated, and a quarry of these skeletons was discovered. No less than 18 skulls, together with enough disarticulated remains to complete the skeletons, were collected from 1 pocket. In an adjacent area three complete skeletons were found. Following this, Yale University collected three skeletons, the American Museum five or six skeletons, and the Carnegie Museum the same number.

During the season of 1909 the Carnegie Museum again collected in this quarry. At least 40 skeletons, and perhaps many more, were taken out. Remains of other animals are very scarce in these sandstones, but a few isolated bones of *Dicera-therium*, the major part of a skeleton of *Daphoenodon superbus* Peterson, and a few bird bones are found.

Senator Moss. I simply wanted to add my congratulations. The great interest your family has shown in these fossils has resulted in their preservation. I think it is wonderful.

Senator BIBLE. The Senator from Idaho?

Senator JORDAN. Just a comment, Mr. Chairman. This Senator is most grateful to Mrs. Cook for her dedication and her interest.

Senator BIBLE. Thank you very much.

We indeed feel honored that you are here with us this morning.

Our next witness will be Mr. Fredine.

Do you have any that are going to accompany you?

Mr. FREDINE. Thank you, Mr. Chairman. I would like to ask Mr. Robert Jones, who is superintendent of Scotts Bluff National Monument, and who is thoroughly familiar with this area, to serve with me, and also Mr. James Lambe, acting for Mr. Harrison.

Senator BIBLE. Very well, gentlemen. You may be seated.

You may proceed, Mr. Fredine.

STATEMENT OF C. GORDON FREDINE, ACTING ASSISTANT DIRECTOR, NATIONAL PARK SERVICE; ACCOMPANIED BY ROBERT JONES, SUPERINTENDENT OF SCOTTS BLUFF NATIONAL MONUMENT; AND JAMES M. LAMBE, LEGISLATIVE DIVISION, NATIONAL PARK SERVICE

Mr. FREDINE. Thank you, Mr. Chairman. Gentlemen of the committee, inasmuch as Senator Hruska and Senator Curtis, Congressman Martin, and last of all Mrs. Cook, and also, of course, Dr. McKenna, have made such a fine presentation, with your permission, sir, I will present our statement for the record, and summarize it.

Senator BIBLE. It will be incorporated in full in the record.

I wish you would particularly direct your attention to the acquisition costs, the plans for development, and your proposed cost of operation.

Mr. FREDINE. Thank you.

Mr. Chairman and members of the committee, the bill before this committee today, S. 1481, would authorize the establishment of the Agate Fossil Beds National Monument in Sioux County, Nebr., to preserve this outstanding paleontological site and related geological features. It would also provide a center for continuing paleontological research, for the display and interpretation of scientific specimens, and for the protection and exhibition of a valuable collection of Indian artifacts and relics.

Since the Miocene mammals and their fossil remains are described in the National Park Service report entitled "Agate Fossil Beds

National Monument—A Proposal," and in the Department report to this committee on S. 1481, I will not repeat their description. National Park Service studies of the fossil quarries at Agate Springs indicate that they are nationally significant and represent an important chapter in the evolution of mammals, a chapter which is not now adequately represented in the national park system.

At its May 1961 meeting, the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments recommended "that appropriate steps be taken to acquire the Agate Springs fossil quarries area for establishment as a national monument."

In addition to the significant paleontological values of the Agate fossil beds, there are associated historic values of great interest and appeal. Capt. James H. Cook, in about 1878, was the first white man to discover fossil bones in this area. He later acquired this land and established the Agate Springs Ranch which has been in the ownership of the Cook family since 1887. Harold J. Cook, Captain Cook's son, became a well-known paleontologist who contributed substantially to this science by writing scholarly technical papers and awakening general interest. For nearly 75 years the ranch has been headquarters for paleontologists doing scientific research in the Agate Springs fossil beds. The National Park Service proposes that the area continue to serve in this capacity, not only for its scientific value, but also for its contributions to public interest and education.

The Department of the Interior believes that there is widespread support for establishment of Agate Fossil Beds National Monument. An association has been formed and a foundation established in western Nebraska to further the national monument proposal and lend support to this project.

National Park Service plans for development of this area include a major interpretive facility in the vicinity of Carnegie and University Hills, sites of the principal quarries. The exposure of fossils for in-place exhibits, reconstructing and relieving certain skeletons and the preparation of museum exhibits will require a paleontological laboratory to assist the scientists in their work, along with a reference library and a collection of fossil materials. The Indian artifacts and historical materials of the famous Cook family collection would be exhibited at a combination visitor center and administrative office facility near the ranch headquarters.

Altogether, the proposed national monument contains acreage in six private ownerships with an estimated acquisition cost totaling \$268,000. Improvements on the lands include three houses, plus various cattle sheds, corrals, fences, water and irrigation systems.

Planned developments by the National Park Service over the first 5 years would cost approximately \$1.9 million. These developments would include a visitor center, employee residences, utilities, and sewers, a maintenance and storage building, campgrounds, picnic areas, boundary fencing, and roads and trails.

During the first year after establishment Agate Fossil Beds National Monument would require the services of five permanent and two seasonal employees. By the fifth year, these numbers would increase to 12 and 4, respectively. Operations costs for the first year would be \$60,000; in the fifth year, \$135,000.

Mr. Chairman, at this point, I would like to mention the amendments suggested in the Department's report on S. 1481. The purpose

of these three amendments is merely to clarify the language of the bill, and they would not result in any substantive change. The suggested language would make it clear that only 3,150 acres may be acquired, that only one road right-of-way is contemplated, and it would correct a technical error in the land description.

In conclusion, let me state that the Department of the Interior heartily endorses S. 1481 and urges congressional authorization of Agate Fossil Beds National Monument.

Thank you for allowing us to be heard in support of this proposal. (The statement referred to follows:)

STATEMENT OF C. GORDON FREDINE, ACTING ASSISTANT DIRECTOR, NATIONAL PARK SERVICE, FOR THE DEPARTMENT OF THE INTERIOR

Mr. Chairman and members of the committee, the bill before this committee today, S. 1481, would authorize the establishment of the Agate Fossil Beds National Monument in Sioux County, Nebr., to preserve this outstanding paleontological site and related geological features. It would also provide a center for continuing paleontological research, for the display and interpretation of scientific specimens, and for the protection and exhibition of a valuable collection of Indian artifacts and relics.

The Agate Springs fossil quarries contain the most remarkable deposit of fossilized remains of Miocene mammals ever discovered. Here, shortly after the middle of the Tertiary period, some 15 million years ago, roamed large herds of unusual animals that had adapted to life on the vast grasslands. These grasslands developed after the uplifted mountains to the west intercepted the moisture-laden winds causing most of the precipitation to fall before reaching the plains. Previously the climate in this area had been warm and moist and the land was covered with deciduous forests. The development of grasses was a great event in the history of life, playing a tremendous part in the evolution of mammals. In Miocene times, sometimes called "the Golden Age of Mammals," the development of grazing animals reached its peak both in variety of species and in numbers.

The weathering and erosion of the uplifted Rockies during this period resulted in a rapid increase of sedimentary deposits upon the Great Plains. Streams flowed more swiftly and carried more sediments. Great floods took place and animals were trapped in the rapidly rising waters, their carcasses swept downstream to be deposited at the bend of a river or at other places where the current slackened. River sediments covered the remains; thus layer upon layer of animal remains and sediments were deposited. As ground waters saturated or percolated through these beds, the sediments were compressed and cemented into sandstone, and the skeletal remains of the entombed animals were fossilized as the porous bones were filled with mineral matter. These deposits remained buried for nearly 15 million years before they were exposed by the valley cutting of the present-day Niobrara River and by the erosive action of the elements. Many geologists believe this to be the most likely explanation for the origin and exposure of the Agate Springs fossils.

Since the Miocene mammals and their fossil remains are described in the National Park Service report entitled "Agate Fossil Beds National Monument, a Proposal," and in the Department report to this committee on S. 1481, I will not repeat their description. National Park Service studies of the fossil quarries at Agate Springs indicate that they are nationally significant and represent an important chapter in the evolution of mammals, a chapter which is not now adequately represented in the national park system.

At its May 1961 meeting, the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments recommended "that appropriate steps be taken to acquire the Agate Springs fossil quarries area for establishment as a national monument."

Not only are the fossil remains extremely abundant, comprising a wide variety of species; also they are remarkably well preserved with numerous complete skeletons. Type specimens of animals previously unknown to science were discovered here by scientists who were pioneers in the field of paleontological research in the West. Specimens from these quarries are exhibited in museums throughout the world.

In addition to the significant paleontological values of the Agate Fossil Beds, there are associated historic values of great interest and appeal. Capt. James H.

Cook, in about 1878, was the first white man to discover fossil bones in this area. He later acquired this land and established the Agate Springs Ranch which has been in the ownership of the Cook family since 1887. Harold J. Cook, Captain Cook's son, became a well-known paleontologist who contributed substantially to this science by writing scholarly technical papers and awakening general interest. For nearly 75 years the ranch has been headquarters for paleontologists doing scientific research in the Agate Springs Fossil Beds. The National Park Service proposes that the area continue to serve in this capacity, not only for its scientific values, but also for its contributions to public interest and education.

Captain Cook—whose great grandfather was James Cook, the famous English explorer who circumnavigated the globe—rode on early cattle drives over the Texas Trail, was a scout for the 8th U.S. Cavalry in New Mexico during the Geronimo campaign, a big game hunter and guide in Wyoming, a ranch manager in New Mexico and an early rancher in the panhandle of Nebraska. His book, "Fifty Years on the Old Frontier," is a highly captivating account of his life as a western frontiersman.

Captain Cook was also interested in Indian affairs. Indians who regarded him as a trusted friend included leaders of the Cheyenne and Sioux Tribes. Indians often visited him at the ranch, presenting him with many valuable and historic Indian artifacts as tokens of their friendship. Among these are Chief Red Cloud's ceremonial jacket, a gun used by Dull Knife's band in its daring escape from Fort Robinson in 1879, and a cowhide pictograph of Custer's Last Stand painted by two Indian warriors. Mrs. Margaret Cook, widow of the late Harold Cook, has offered to donate the famous Cook family collection, along with her late husband's paleontological research library, to the National Park Service when the monument is established.

The Department of the Interior believes that there is widespread support for establishment of Agate Fossil Beds National Monument. An association has been formed and a foundation established in western Nebraska to further the national monument proposal and lend support to this project. The area's interest is further evidenced by the fact that architectural students at the University of Nebraska recently had a competition to design an appropriate museum structure in which to interpret and exhibit fossil specimens at the quarry site.

National Park Service plans for development of this area include a major interpretive facility in the vicinity of Carnegie and University Hills, sites of the principal quarries. The exposure of fossils for in-place exhibits, reconstructing and relieving certain skeletons and the preparation of museum exhibits will require a paleontological laboratory to assist the scientists in their work, along with a reference library and a collection of fossil materials. The Indian artifacts and historical materials of the famous Cook family collection would be exhibited at a combination visitor center and administrative office facility near the ranch headquarters.

The Agate Springs Fossil Quarries are located in northwestern Nebraska, 44 miles north of Scottsbluff (population 13,600), and 100 miles south of Wind Cave National Park in South Dakota, where 1963 visitations totaled 931,000. At Agate Fossil Beds National Monument, incidentally, we anticipate 120,000 visitors in the fifth year after establishment.

U.S. Highway 20, a major east-west route, passes the Agate Fossil site some 20 road miles to the north, and U.S. 26 carries east-west traffic through Scottsbluff on the south. About 50 miles farther south is Federal Interstate Route 80, a new transcontinental superhighway which crosses the Nation from San Francisco to New Jersey. In relation to major population centers of the region, this proposed national monument is 150 miles northeast of Cheyenne, Wyo. (population 49,000), 160 miles southwest of Rapid City, S. Dak. (population 48,000), 250 miles northeast of Denver (population 950,000), and 450 miles west of Omaha (population 332,000).

Altogether, the proposed national monument contains acreage in six private ownerships with an estimated acquisition cost totaling \$268,000. Improvements on the lands include three houses, plus various cattle sheds, corrals, fences, water and irrigation systems.

Planned developments by the National Park Service over the first 5 years would cost approximately \$1.9 million. These developments would include a visitor center, employee residences, utilities, and sewers, a maintenance and storage building, campgrounds, picnic areas, boundary fencing, and roads and trails.

During the first year after establishment Agate Fossil Beds National Monument would require the services of five permanent and two seasonal employees.

By the fifth year, these numbers would increase to 12 and 4, respectively. Operations costs for the first year would be \$60,000; in the fifth year, \$135,000.

Mr. Chairman, at this point, I would like to mention the amendments suggested in the Department's report on S. 1481. The purpose of these three amendments is merely to clarify the language of the bill, and they would not result in any substantive change. The suggested language would make it clear that only 3,150 acres may be acquired, that only one road right-of-way is contemplated, and it would correct a technical error in the land description.

In conclusion, let me state that the Department of the Interior heartily endorses S. 1481 and urges congressional authorization of Agate Fossil Beds National Monument.

Senator BIBLE. Mr. Fredine, would you indicate whether or not the National Park Service has other projects comparable to this within their jurisdiction in the park system? You have Dinosaur National Monument. Are there any others similar to this? Are you plowing a new field here, or do we have some precedents?

Mr. FREDINE. We have the precedent, of course, of Dinosaur National Monument which, as Mr. McKenna pointed out, is a deposit of animals representing the Jurassic period, or the age of reptiles. This is an important recent deposit, in the age of mammals. And we have no plans now or anticipate no additional areas that would cover this same era and area of scientific interest.

Of course, it must be admitted that in many areas of the national park system, deposits of fossil remains are occasionally found. But nowhere is anything of this magnitude or the scientific significance now present in the national park system.

Senator BIBLE. How would you exhibit this to the public?

Mr. FREDINE. We would expose, following up the work that the various universities and paleontologists have carried out—expose the presence of the skeletons in the rock, and perhaps cover them in such a way as is done at Dinosaur National Monument. Then visitors can in comfort see them, and actually see work in progress, such as exposing them by the careful techniques that are required to uncover the specimens and to protect them.

This would be done at the Carnegie Hill, University Hill, and also at the detached area, as shown on the map, which is a slightly different type of exposure. And also in the northwestern portion where the unusual cases of ancient beaver burrows are present in substantial numbers.

In each case, there would be interpretive devices, plus the presence of personnel knowledgeable in these matters to explain just exactly what is present and what their significance is to the people who visit the area.

Senator BIBLE. Do you have any particular problem of people coming on the area and removing these fossils and these bones—similar to the problems we have in many of our Western States of removing petrified wood from the public domain? That is quite a problem. Do they come on this area and remove some bones?

Mr. FREDINE. We believe that without protection, and without creating among the public appreciation for these values, that the deposits would be fairly rapidly destroyed, and they would carry away many of the fossils that really belong to the United States.

As you recall, the Antiquities Act the early part of this century gave protection to relics such as these. But the general public is not too familiar with the antiquities law, and it does require enforcement.

In case this national monument is established, you may be sure that the deposits and the other values of the area will be protected.

Senator BIBLE. Would you supply for the record a detailed breakdown of your estimated development costs of \$1.9 million?

Mr. FREDINE. Yes, sir. We would be pleased to.

Senator BIBLE. I think that could be supplied for the record. I think maybe in the interests of time we will have you supply that for the record.

Mr. FREDINE. We shall be happy to do that. I can give you a very broad breakdown.

The roads and trails costs would be \$525,000. The costs of buildings and utilities and miscellaneous appurtenances would be \$1,377,000, for a total of \$1,902,000.

But we shall supply this total breakdown for the record.

(The information referred to follows:)

DEPARTMENT OF THE INTERIOR,
NATIONAL PARK SERVICE,
Washington, D.C., July 7, 1964.

HON. ALAN BIBLE,
Chairman, Subcommittee on Public Lands,
Committee on Interior and Insular Affairs,
U.S. Senate, Washington, D.C.

DEAR SENATOR BIBLE: During the subcommittee's hearing June 22 on S. 1481, proposing establishment of Agate Fossil Beds National Monument, the National Park Service was requested to furnish a copy of its agreement with Mrs. Margaret C. Cook, widow and executrix of the estate of the late Harold J. Cook.

A copy of the agreement, dated March 4, 1963, is enclosed herewith.

Also enclosed, as requested, is a copy of the Park Service's proposed development schedule for Agate Fossil Beds, showing how \$1,902,000 would be expended over the first 5 years for roads, trails, buildings, utilities, and other facilities.

We believe this completes the information requested by your subcommittee in connection with S. 1481. Please call on me if anything further is desired.

Sincerely yours,

JACKSON E. PRICE,
Assistant Director.

AGREEMENT BETWEEN THE NATIONAL PARK SERVICE AND MARGARET C. COOK

This agreement entered into this 4th day of March 1963, by and between the United States of America, through the National Park Service, acting by and through the Superintendent of Scotts Bluff National Monument, hereinafter called "the Service", pursuant to the authority contained in the act of July 1, 1955 (69 Stat. 242), and Margaret C. Cook, hereinafter called "Mrs. Cook"; and,

Whereas Mrs. Cook is the executrix of the estate of Harold J. Cook, deceased, and the sole beneficiary under his last will and testament of a collection of Indian artifacts and wearing apparel, a paleontological library and a Western gun collection, hereinafter called "the collection"; and,

Whereas it is the intention and desire of Mrs. Cook to donate the collection to the Service for exhibit and reference purposes at Agate Fossil Beds National Monument, hereinafter called "the monument", if the establishment of the monument is assured before January 1, 1967; and,

Whereas it is necessary that the collection be preserved and protected during the period preceding the establishment of the monument; and,

Whereas the Service has a fireproof vault and an adjoining room at Scotts Bluff National Monument where the collection may be kept; and,

Whereas the Service and Mrs. Cook contemplate that the collection will be kept at the Scotts Bluff National Monument on a loan basis;

Now, therefore, in consideration of the mutual promises and covenants, it is agreed as follows:

1. Mrs. Cook will loan the collection to the Service.
2. The Service will make space available in the fireproof vault and adjoining storage room in Scotts Bluff National Monument for the storage and preservation of the collection.

3. Mrs. Cook may remove any part or all of the collection at any time after notifying the Superintendent in writing of her intention to do so 30 days in advance of the removal.

4. Mrs. Cook will remove the collection from Scotts Bluff National Monument at her own expense upon receiving 60 days' notice in writing from the Superintendent.

5. The Service will not be responsible for damage, destruction, or loss by theft while the collection is in its possession at Scotts Bluff National Monument, although reasonable care will be provided for its protection.

6. Mrs. Cook will donate the collection to the Service for exhibit and reference purposes at the monument if the establishment of the monument in the vicinity of Agate, Nebr., is assured before January 1, 1967.

7. It is understood that the Service will not carry any insurance on the collection, and if Mrs. Cook desires to carry such insurance she may do so at her own expense.

8. The Superintendent will not exhibit any of the collection or allow access to it unless specifically authorized in writing by Mrs. Cook. This does not preclude the use of the collection for reference purposes by personnel of the Service under the direction of the Superintendent.

9. A complete inventory of the collection will be prepared and signed by the Service and Mrs. Cook and copies thereof distributed as may be agreed.

10. The Service will provide transportation for the collection without charge from Agate, Nebr., to Scotts Bluff National Monument, and provide a competent technician to supervise its storage.

11. The Superintendent will acknowledge receipt of the collection in writing.

12. The Service shall have the right to take such measures as are necessary to preserve the collection from harmful agents such as insect pests and decay.

13. If this agreement is terminated as provided herein, the cost of removal of and transportation for the collection will be paid by Mrs. Cook, and the removal from Scotts Bluff National Monument will be under the supervision of the Superintendent.

14. Mrs. Cook agrees to bequeath the collection to the Service for exhibit and reference purposes at the monument if the establishment of the Monument in the vicinity of Agate, Nebr., is assured before January 1, 1967.

15. The term "Agate Fossil Beds National Monument" as used in this agreement, means any national monument or park established at the site of what is traditionally known as the Agate Springs Fossil Quarries near Agate, Nebr.

16. If Mrs. Cook donates or bequeaths the collection to the Service, the collection will be kept at the monument and no part thereof may be removed therefrom except temporarily for purposes of repair or preservation.

17. Where applicable, this agreement will be binding upon the heirs, legatees, personal representatives, and assigns of the parties hereto.

18. This agreement may not be assigned without the consent of both parties in writing.

Witness our hands this 4th day of March, 1963.

UNITED STATES OF AMERICA,
By HAROLD R. JONES,
Superintendent, Scotts Bluff National Monument.

MARGARET C. COOK,

As an Individual and as Executrix of the Estate of Harold J. Cook, Deceased.

Witness:

ALMA HUMRICH.

Agate Fossil Beds National Monument proposal—Development schedules

	1st year	2d year	3d year	4th year	5th year
Roads and trails:					
Headquarters, access and service roads and parking area (0.5 mile).....	\$65,000				
Road and parking from intersection at State Highway 29 to vicinity of proposed quarry building at Carnegie Hill includes bridge (3.5 miles).....		\$125,000	\$100,000		
Campground and picnic area road and parking (0.5 mile).....			60,000		
Service road and trail from quarry building to its parking area (0.3 mile).....				\$7,000	
Road and parking to Devils Corkscrew formations (1 mile).....			65,000		
Road and parking to Stenomylus quarry (2 miles, gravel).....					\$100,000
Directional signs.....	500	1,000	500	500	500
Total.....	65,500	126,000	225,500	7,500	100,500
Buildings, utilities, and miscellaneous:					
Headquarters:					
Utility systems—water, power, sewer.....	200,000				
Maintenance and storage building.....	75,000				
Employee residences (9).....	80,000		100,000		
Employee apartments (2), 6-unit.....	60,000		60,000		
Visitor center, administrative and contact building, includes audiovisual and exhibits.....		180,000			
Campground (50 sites) and picnic area (10 sites) includes 2 comfort stations and extension of headquarters utility systems.....			107,000		
Seeding and planting.....	5,000	5,000	5,000	5,000	
Carnegie Hill area:					
Quarry building, major fossil display, laboratory, library, and exhibits.....				250,000	
Utility systems, water, power, sewer.....				120,000	
Devils Corkscrew area: In-place fossil display, exhibits, and interpretive signs.....					
			20,000		
Stenomylus quarry: In-place fossil display, exhibits, and interpretive signs.....					
					30,000
Park, general:					
Restoration of acquired lands.....	3,000	7,000			
Boundary fence (15 miles).....					45,000
Entrance sign, displays, exhibits, and interpretive signs.....	5,000	5,000	5,000	5,000	
Total.....	428,000	197,000	297,000	380,000	75,000

Roads and trails.....	\$525,000
Buildings, utilities, miscellaneous.....	1,377,000
Grand total.....	1,902,000

Senator BIBLE. You state that one of your suggested amendments is that only one road right-of-way is contemplated. What does that mean?

Mr. FREDINE. Yes, sir. As you can see on the map, there is an existing road that comes close to the quarries. At that point a road will take off and go close to the University Hill and Carnegie Hill area, and then proceed to the eastern boundary. And at this point a right-of-way would be acquired to go down to the quarry, as Mr. Lambe is pointing out.

This is the only right-of-way that would be required. If the monument is established, the rest of the road system would be within the monument.

Senator BIBLE. Thank you, Mr. Fredine.

The Senator from New Mexico?

Senator ANDERSON. I have no questions.

Senator BIBLE. The Senator from Alaska?

The Senator from Utah?

The Senator from Idaho?

The Senator from Wyoming?

Senator SIMPSON. It seems to me you never stint yourself on the employment of personnel for these places. How can you justify 12 permanent employees and 4 seasonal. That seems a little high to me.

Mr. FREDINE. I would be glad to recount very briefly who they would be composed of.

There would be a superintendent, a museum geologist, a museum technician, two of these, a park naturalist, a chief park ranger, a ranger in addition to the chief park ranger, administrative assistant, a clerk-stenographer, an information receptionist, a caretaker, and a foreman for maintenance work. These are the 12 that would be added to the staff by the end of the fifth year.

In addition there would be 4 man-years of seasonal employment, including park naturalist, a museum technician, seasonal park rangers, and a laborer and truckdriver.

The value of this area is so great—

Senator SIMPSON. Just let me interrupt you there. You contemplate building housing for these employees?

Mr. FREDINE. Yes. The residence would have to be established, residences that would be acquired that now exist on the property would be devoted primarily to use for museum and display purposes, and not as living quarters.

The development program contemplates the construction of nine employees' residences eventually, at an average cost of \$20,000 each. And an employee apartment to take care of seasonals, a six-unit apartment, costing about \$120,000.

Senator SIMPSON. What do you do with respect to the extraction of these articles? Will there be any of them shipped away from the property after it becomes a historic site?

Mr. FREDINE. Yes, Senator Simpson. We would anticipate continuing the fine practice of the present and past owners to allow scientific institutions to examine the material and as long as this material is to be used for scientific purposes elsewhere, and for display elsewhere, under controlled conditions, the National Park Service is very desirous of contributing this material to the scientific world.

Senator SIMPSON. Will all this development and extraction be done under the supervision of qualified paleontologists?

Mr. FREDINE. That is correct.

Some of our employees would be qualified paleontologists. We believe this is essential in order that we may not misunderstand the values that are involved.

Senator SIMPSON. That will be for display purposes, and museum purposes, and not for commercial purposes?

Mr. FREDINE. That is correct. There is no anticipation of any commercial use of these findings. Of course, some of these specimens that are unique and outstanding will be kept there permanently for display in the monument.

Senator SIMPSON. That is all I have.

Senator BIBLE. The Senator from Colorado.

Senator ALLOTT. I just have one question. Does the development involve the use—I am not quite sure of the word—the dioramas?

Mr. FREDINE. Quite possibly, yes. The diorama technique could be used, or flat paintings, because we need to depict the appearance of the area with the animals in place, reconstructed of course, from the evidence that is in the quarries. And this would be done either by a diorama or paintings or drawings, similar to those you see on the map.

Senator ALLOTT. That is all I have.

Senator BIBLE. Further questions?

Thank you very much, Mr. Fredine.

Do we have further witnesses on this bill, S. 1481?

The chairman is in receipt of a letter from Mrs. Winifred C. Howard, which will be made a part of the record. The letter indicates that she approves the purpose of the bill, but objects to the amount of acreage that is being requested for this.

The letter will be made a part of the record at this point.

(The letter referred to follows:)

Re Senate bill No. 1481.

SPOKANE, WASH., May 23, 1964.

Senator HENRY M. JACKSON,
Chairman, Senate Interior and Insular Affairs Committee,
Senate Office Building, Washington, D.C.

DEAR SENATOR JACKSON: I protest, in its present form, the above-mentioned bill and its companion bill in the House of Representatives. These bills propose establishment of a national monument preserving the site of the Agate Springs fossil quarry in Sioux County, Nebr., and commemorating the lives of James H. Cook and his son Harold J. Cook. Suggested land includes approximately 3,150 acres.

I approve the purpose of the bill and would be in favor of one suitably planned; however, on the basis of present Park Service plans I object both to the amount and to the particular location of the proposed land.

My protest is based on intimate knowledge of both the topography and the historic background of the site. I am one of four daughters of Harold J. Cook. Except for our children we are the only descendants of James H. Cook and are owners of the Cook land, subject to the life tenancy of his widow.

Present plans are contrary to my father's expressed wish; furthermore they do not parallel either of the two original plans he helped to formulate:

One would call for a huge high plains wildlife preserve within whose boundaries would be several other historic sites, with Agate at the center; 3,150 acres are far too few to accomplish this plan.

The second would call for development of the fossil quarry itself into an attractive educational exhibit; development of a good access road with parking area; and construction of a museum to house the large historic collections; 3,150 acres are far too many to be justified for this plan.

Only a vacation playground could require 3,150 acres; but this site is so remote from other tourist centers or entertainment facilities that as a playground it would be both impractical and a waste of tax money.

At the same time it would destroy two ranches (Cook and Hoffman) by taking their richest land, leaving in each case fringe land that would not be economically workable—or salable.

The fossil quarry is situated on land owned by George Hoffman, whose wife is one of the daughter heirs. Among us we are both the legal owners and the historic heirs of the properties involved. I am sure that the Park Service would find all of us glad to assist and cooperate in making revised plans for the monument boundaries that would not only be more compatible with family wishes but also more in keeping with public interest as well.

Senate bill No. 1481 is against public and private interest in its present form. It should be amended; if that does not occur, then it should be defeated.

Sincerely yours,

WINIFRED C. (COOK) HOWARD
Mrs. Wayne F. Howard, Sr.

Senator HRUSKA. Mr. Chairman, will the record be held open for a reasonable period?

Senator BIBLE. The record will be kept open for 10 days.

Senator HRUSKA. Dr. Schultz, of the University of Nebraska Department of Geology, has been away. He has a statement virtually complete.

Senator BIBLE. We will keep the record open until July 1. (Whereupon, at 11:30 a.m., the hearing was concluded.)

(Under authority previously granted the following communications were ordered printed:)

THE UNIVERSITY OF NEBRASKA,
STATE MUSEUM,
Lincoln, Nebr., June 22, 1964.

HON. ROMAN L. HRUSKA,
U.S. Senate, Washington, D.C.

MY DEAR SENATOR: We at the University of Nebraska State Museum are very appreciative of your work pertaining to the establishment of a national monument at Agate Springs, Nebr. Prehistoric animals appear to be of almost universal interest as the attendance at our museum indicates, but although there are several good museums which display prehistoric animals, it is seldom that the layman finds it possible to view fossils in the same location and arrangement in which they were buried millions of years ago. This is a unique experience that should be made available to everyone and what better location than the world-famous fossil beds of Agate Springs, Nebr., one of the richest fossil deposits ever discovered.

We heartily endorse your proposal that Agate Springs become a national monument.

Sincerely yours,

JOHN A. HOWE, *Acting Director.*

AGATE, NEBR., June 30, 1964.

Re Agate Fossil Beds National Monument.

Senator HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
Senate Office Building, Washington, D.C.

DEAR Senator JACKSON: My husband and I own two-thirds of the land now suggested as part of the Agate Fossil Beds Monument. It is on our ranch that the fossil hills are located. Since it was my father, Dr. Harold J. Cook, who was interested in having the fossil beds preserved, and since we have more land involved than anyone else, we are deeply concerned by this bill in your committee.

My three sisters and I strongly urge a change in this bill, dropping the acreage requested from 3,150 acres to 320 acres at the most. The two hills having fossils on our ranch do not cover 5 acres. Providing land for a public road to them would take little more acreage, since the fossil hills are only approximately a half mile from the county road. We have said we could sell land around the hills for buildings and development required by the Park Service, and would also sell land for a road across our place to the hills involved. Countless national parks have been set up smaller than 320 acres. I have looked this point up and know it is feasible.

The Agate Fossil Beds National Monument does not need as many acres as they suggest. We cannot afford to lose 2,080 acres needed for our ranching operations. My father, Dr. Harold J. Cook, suggested 320 acres be purchased from our place, in his March 5, 1962, letter to Director Howard Baker, Regional Park Service Director at Omaha at that time, a far more modest plan than the one the Park Service is suggesting. My three sisters and I, who will inherit the Cook Ranch upon the death of our stepmother, Margaret C. Cook (Dr. Cook's widow) all feel the Park Service wishes far more land for this monument than is necessary or wise, or well planned. Cutting back the land requirements for this national monument would save the U.S. Government money, when it already is deeply in debt. My husband and I would welcome the committee's visit to our place so they could observe the situation and discover how little land is needed for establishing a national monument here.

Our hopes go for your thoughtful consideration of this urgent matter.

If you need to consult my sisters about this matter their names and addresses follow: Mrs. Grayson E. Meade, 1403 Summit Street, Calgary, Alberta, Canada;

Mrs. Wayne F. Howard, Route 1, Box 317, Spokane, Wash.; and Mrs. Loy M. Naffziger, 503 Hill Street, Pullman, Wash.

Yours very truly,

MARGARET COOK HOFFMAN.

AGATE, NEBR., June 30, 1964.

Re Agate Fossil Beds National Monument.

Senator HENRY M. JACKSON,
Chairman, Committee on Interior and Insular Affairs,
U.S. Senate Office Building, Washington, D.C.

DEAR SENATOR JACKSON: A good many prominent Governors and Senators have suggested the creation of the Agate Fossil Beds National Monument. Since I am the principal landowner involved (I own 2,080 of the 3,150 acres proposed) I feel some facts should be brought to your attention. Some of the people backing this bill have not been on the grounds to inspect the quarries, and do not know this situation. They have just gone on the hearsay of the National Park Service, and are more interested in their State reaping potential tourist business. I am not opposed to the establishment of a national monument at Agate, but I am opposed to the Park Service wanting as large an acreage as they recommend. A national monument could be established on 320 acres, and eliminate wrecking two ranches.

On my ranch the proposed bill would take all of my hay meadows along the Niobrara Valley for about two and a half miles. On the other ranch, the deceased Harold J. Cook, it would take the ranch site, house, barns, corrals, and grove of trees, leaving around 6,000 or 7,000 acres without a base for operations. This latter ranch is the ranch of the late Harold J. Cook, who was my father-in-law. He promoted the establishment of the fossil quarries with the Park Service, but he was opposed to the 3,150 acreage which the Park Service has decided to put on their map to recommend. His intentions, as he told my wife and me, and also wrote to Howard W. Baker, Regional Director of the National Park Service at Omaha on March 5, 1962, were that he opposed the amount of land wanted; that he intended about 320 acres for the monument. These acres would be in the center around the fossil hills, and a road would be graded in from the county road about half a mile away. He planned to donate enough land on his ranch to build a museum. He was concerned about the Park Service's plan to take his ranch site, our hay meadows, our \$15,000 home, and a neighbor's dam. I am enclosing a photostatic copy of his letter to Howard W. Baker in the hope you will give it close attention.

My letter may be too late in reaching you, but I would greatly appreciate your consideration and investigation by you and members of your committee. A monument at Agate can be just as effective in tourist business with less acreage and less money needed for its establishment. It could be just as attractive on 320 acres as it could be on 3,150 acres. If you have any questions, I will be glad to answer them. Many people in this area have said that the Park Service is asking for too large an acreage. I request thoughtful consideration of these matters.

Yours very truly,

GEORGE H. HOFFMAN.

[Enclosure]

AGATE, NEBR., March 5, 1962.

Director HOWARD W. BAKER,
Region 2 Office, National Park Service,
Federal Office Building, Omaha, Nebr.

DEAR MR. BAKER: You have undoubtedly wondered why we have been so long in writing this letter to you, since receiving the fine letter from Lawrence F. Knowles last fall, together with the statement enclosed on "Land Acquisition Policies * * *" etc., following his visit here with Harry Robinson, when they both discussed some ideas with us. Actually, what originally seemed to us to be a relatively simple matter to solve, appeared to have developed troublesome complexities; and as we are certainly as deeply interested and concerned in the success of the proposed Agate Springs Fossil Quarries National Monument as you people are, we have taken this long time to try to think this through, and solve problems presented, to help make this a real success on a practical footing, as it should be, taking into account unusual and special factors involved here that affect us vitally.

Perhaps, for the sake of the record, I should here review a bit of the background, in various facets, involved here, which has important bearing on the problems and possibilities involved.

Before my father, Capt. James H. Cook, began to establish and develop this Agate Springs Ranch here in 1886, he had already made an outstanding record, much of which is recorded in his book, "Fifty Years on the Old Frontier," as you know, and had made important contacts and friendships that enabled him to accomplish things beyond what most men of his background would have done. For instance, his early contacts with such famous scientists as Edward Drinker Cope, of the Philadelphia Academy of Sciences, who stayed with him for months on the WS Ranch in New Mexico, and Dr. Othniel C. Marsh, of Yale University, with whom he had unusual contacts, plus his own deep interest and remarkably retentive memory, gave him perspectives and information on geology and pre-historic life which caused him to appreciate and take the greatest interest in fossils found on this ranch, here, beyond what any ordinary ranchman would have done. He greatly facilitated later research done here; he read technical reports and understood and remembered them, as few non-college-trained men would have done.

This background in my early home, plus meeting famous scientists, and getting into the field with them in such work, certainly was largely responsible for my early deep interest in such studies, even as a small boy; and long before I had the fine university and professional training I later had.

Comparably, from a practical viewpoint, my father at once appreciated the importance of dependable irrigation when he came here, and immediately undertook the construction of dams and ditches, which he surveyed and designed himself; and acquired some of the oldest water rights on the Niobrara River, which runs through this ranch, and which greatly increased its value as a cattle ranch, also which have long produced food for regional ranches as well as for our own livestock. Likewise, he at once, in the late 1880's, and early 1890's planted and cared for thousands of trees, which he planted with long-range forethought and care, to produce necessary windbreaks and shelter, as well as fenceposts and wood, producing a beautiful environment in which to have a home, lawns, and fine yards, for ourselves. But, beyond that, from a ranch viewpoint, this produced, downwind, a splendid and valuable winter shelter for corrals and feedlots, and sheds for cattle, now recognized as the best and most practical situation for ranch development in this region.

All winters here are not bad, but some are, with violent blizzards and vicious cold winds and drifting snows. These winters have long been recognized as the real bottlenecks to western ranching safety and dependability. The situation my father laid out here, and which we have further developed at Agate around our home, with its groves and other buildings, corrals, ditches, etc., is something that has required almost 75 years to grow, develop, and produce; and it could not be duplicated, since unalterable topographic and physical factors are involved, in ways vital to make this possible as it is today. It would take completely prohibitive expense and time to make even a workable inferior substitute.

Our whole ranch operations and economy are based on the irrigated valley sections of this ranch, with its hub and operational center at Agate; and in and around this area our main grove is situated. Consequently, the problems we face in your wanting to take over this grove area go far beyond the old home in which we live, or any sort of life-tenancy arrangement for us to continue to occupy it, while we live. This actually strikes at the very foundation of our ranch operations here, from which we derive our principal income.

This is a vital, key area, necessary for the continuation of our ranch operations, as long as we operate this Agate Springs Ranch, in many ways, that I could show in detail, or discuss in detail, if necessary, in writing, and which might not be seen or realized by people long distances away, who are not practical ranch operators.

The first collecting was done in the Agate Springs fossil quarries in 1904, when I took Mr. C. A. Peterson, of the Carnegie Museum of Pittsburgh, there, and showed him the fossil bones in place in the rock in those hills. In 1905, work started there in earnest, by two parties; one, under Peterson, in Carnegie Hill, and a second party under Prof. B. H. Barbour, of the University of Nebraska, nearby, both in parts of the same original bone deposit that are parts of these great quarries.

In the following years, more and more field parties came here to work, from these and numerous other scientific and educational institutions; and all were highly successful. Dr. Frederic B. Loomis, of Amherst College, found and did the first collecting in the remarkable *Stonomylus* quarry, nearby, of this same age.

The American Museum of Natural History of New York, did much the most extensive collecting in these deposits, though Yale, Harvard, the Smithsonian Institution, Chicago Natural History Museum, and many others, obtained highly valuable collections as well, through a long period of years.

Naturally, the wide publicity such collecting received, not only through technical publications, but through newspapers and magazines, resulted in increasing thousands of people coming here from everywhere; and those who came and saw were still greater advertisers, in spite of the bad roads and trails, and other primitive conditions. So, we had to do what we could to stop and divert so many people from coming here, beyond what we could give time and attention to. Nevertheless, we have talked and lectured to a great many thousand visitors here, through the years; and many of those who came here as schoolchildren, or with their parents, are now bringing their children to see the collections and hear the lectures. Many of them tell us about the day they had spent here as children, and saying it had been the greatest experience of their lives, and asking us to please do this for their children. When people approach you that way, you just cannot turn them down, even when business or other professional matters are pressing you for time.

These long years of such contacts and experiences with the public, plus our technical training, have taught us to appreciate the high potential value of making the evidence found here in these deposits available to interested people, and to growing youngsters, in particular, not only for their primary interest-catching values, but even more for the soundness of the scientific and broad educational values involved, and what such evidence, properly explained in simple, understandable terms, can do for the perspectives and mental balance of those who know them. Thus, years ago, we all became strongly convinced of the high values present in the Agate Springs fossil quarries, not only for educational and scientific values, but for their immense tourist attraction values.

However, we have never wanted to commercialize these deposits; and, unless we did, we have never been financed in a manner to do this as a philanthropy beyond what we have been doing. While we never permit specimen collectors here, untrained people, we have never charged anyone a penny to collect, of the many trained people we have permitted to collect here. The recognized Cook Museum of Natural History, which we maintain here at our own expense, as a research museum, has been a free museum, with no admission charged, for all to see, when we can take time to show it to students, or others, who come to see it.

So, we were particularly delighted when the National Park Service approached us, proposing to develop these famous deposits properly, and make them available to the public in a safe and proper manner. It is exactly the sort of thing my father, my wife, and I have all hoped to be able to do for many years in some practical manner. This suggestion which you people made would offer a most practical solution. Anticipating the possibility of some such development some years ago, when it became necessary for me to transfer surface title to the land on which the fossil quarries are situated to others, I inserted in the deed a clause by which I retained, in perpetuity, all rights for the exploration and development of these quarries for scientific and educational purposes, and together with rights of ingress and egress to and from the quarry areas, which means the right to build roads and a right-of-way across the adjoining lands later acquired by George H. Hoffman, as well.

Thus, regardless of any possible future changes in surface ownership of the 640 acres on which the quarry hills are located, this could never interfere with the proper scientific and educational development and exhibition of these quarries. Owing to the surrounding topography, it is not possible for anyone to get to these quarries, or to establish any objectionable developments near them, with the control of this block of land assured, after proper development of the Agate Springs fossil quarries is underway.

Providing related considerations that I will again outline herein are agreed to, I have, as you know, offered to give my rights in the Agate Springs fossil quarries area to the National Park Service, and do anything I may to help facilitate their proper development and use.

When I was told that you would be glad to develop a permanent museum here, to go along with the development and exhibits, in situ, in the Agate Springs fossil quarries themselves, I told you that I would be glad, in that event, to give you the fossil and geological research collections I have here now, plus the important Indian and historical collections we have here, in a large part assembled by my famous father, providing these were safely and properly housed and exhibited here, and kept properly available to research scientists and properly accredited students for study here. These collections alone are worth a great many thou-

sands of dollars; and, as they contain a great many type specimens, and many other completely irreplaceable scientific and historical objects, they cannot be duplicated or replaced, if lost or damaged. Consequently, it is vital that these collections be kept in properly constructed fireproof quarters, for permanent safekeeping and reference.

Also, as you know, I told you people that, if you go ahead and build such a safe museum building and research center here, I would be willing to turn our research library, with thousands of titles, and a great many rare and valuable publications included, over to the Agate Springs Fossil Quarries Monument Research Museum, for permanent use and safekeeping. If it is kept here, cataloged, and available to properly accredited research people who may want to come here to study from other institutions or countries, and, of course, always available to us for continued study and use, as long as we may want them.

To house, in a fireproof building properly and, exhibit these collections that we now have, and keep them catalogued, and available to research scientists for study here, with adjoining quarters for this research library facility, will require quite an extensive building, aside from the actual fossil quarry developments and exhibitions. When we discussed these opportunities with you personally, when you were here, your thought then was that your operational headquarters should not be down at the quarries, but up here near Agate, and a suitable road connecting these units be established. This still appears to us to be a completely practical proposition, both from your standpoint, and from ours, providing it is so set up that it is not one sided, and recognizes the fact that both the National Park Service and we are contributing to make this possible and practical, for the best public good, and in a manner that does not upset our business and life, in return for our having developed this whole situation and made it possible.

I'm sure that no one in the Park Service had this idea in mind, in the last suggestions made here to us; but, rather, our situation in the matter, and what the suggestions outlined would do to us in a business way, was simply not understood, appreciated, or taken into account.

As I mentioned when you were here, it may be necessary to bend, or alter, to fit facts and conditions existing here, some of the usual rules and regulations of the National Park Service, in order to get the job done, on a practical basis, fair both to the National Park Service and to us. Not being in the financial class of the Rockefellers, we cannot do things that people like that can do; and we believe that we are being more than generous, in relation to what we do have, in offering to do what we are.

I will outline our current thoughts and ideas on what is practical, and what is not, and why, supplementing this with plats I will make and send, herewith.

Various alternatives are possible, to put this on a practical basis. Your first map, in your preliminary survey of the Agate Springs fossil quarries area, June 1961, is much more nearly practical than the revised and expanded prospectus discussed here last fall, but even the first study contained some basic difficulties that require a modification of proposed borders. If you will refer to your plat map of June 1961, of lands in sections 3 and 4, T. 28, R. 55, north of the Niobrara River, and north of the public, but unfenced highway from Agate to Marsland, it was made without consideration of what this land is or who owns it. You will observe that the old Necas-Harris irrigation canal has its dam, storage reservoir, and headgates, in the NW $\frac{1}{4}$ SE $\frac{1}{4}$, sec. 3, which controls the operations of the present Harris and Scavdahl ranches, down the valley. While I have not mentioned your wanting it to them, I'm certain they would not agree to the ownership of this key area controlling their old water rights being turned over to anyone.

Just across the fence, west, from their headgate, the river bend cuts through the southeast corner of the SE $\frac{1}{4}$ SW $\frac{1}{4}$, sec. 3, in a manner that makes this a natural, live water watergap for any cattle we run in the 640-acre pasture of which this is a part. The way you had that suggested north borderline of the monument area laid out, it would not only cut 240 acres out of this pasture, but would cut all the rest of it off from water, making it useless to us, and very little possible use to you, unless we went to the expense of not only drilling water wells, but constantly watching and maintaining these, which work and continuing expense is avoided by using a natural watergap. I suspect, too, that you would not find the Buckleys, who own the land in the N $\frac{1}{2}$ sec. 15, included in your map, cooperative, either since that would make the rest of their land there virtually useless to them, though it is possible they might sell all of section 15, providing they retain the oil rights on it. This land is on an anticline, the Agate Anticline, and they are convinced from tests drilled there that it will produce oil, when properly drilled. Thus, you might face some real problems to acquire that land.

The NW $\frac{1}{4}$, sec. 16-28-55, that you included in that map, is part of a State school section, on which George Hoffman holds the surface lease.

The balance of the land outlined in your plat map of last June, includes the river bottom hay land vital to his operations, as well as the home and improvements of George H. Hoffman, and unless you purchased all of the land in this block that he owns, I can understand his being unwilling to deal with you, since he does not have the background, perspectives, or interest in scientific and educational matters that we have; and since he is completely dependent for his present and future income on this property. He neither could afford to, nor would, donate his land there to anyone for any purpose. While we own the full rights to the fossil quarries, and space for any appropriate, related developments on the 640 acres around them, with access across his other lands also, we do not own the grass or surface rights there. So, in any event, it would be necessary for you to buy these on whatever lands you decide to include and operate there.

The plat of T. 28, R. 55, which I will include herewith, shows in colors the outlines of landownerships and holdings, in relation to the above matters and to your original plat of this area.

To put this on a simple, workable, practical basis, I would suggest that the easiest solution here, and one that would be completely practical, would be for the National Park Service to purchase the surface rights from George Hoffman on the west half of the east half and the east half of the west half of section 10, T. 28, R. 55, with the Agate Springs fossil quarries situated almost in the center of this 320-acre tract; and then run a road across the river there to the present highway, about as you have indicated on your June 1962 plat, on the most practical route your engineers may select. Then, have a practical underpass on this road, so that Hoffman can get at, and produce, the hay on his land there, east of this road. If you will arrange in advance to do that, it will have an important bearing, I feel sure, as to how he is willing to deal with you on other matters there.

Of course, if you do decide to buy out his whole ranch, this need not apply; but certainly it would, if you just take the above suggested 320 acres there. If you do buy this 320 acres that include Carnegie Hill and University Hill, as to surface rights, from him, preparatory to developing the Agate Springs fossil quarries in situ, as we have discussed, I will, as I told you, convey all my rights and title to the quarries to the National Park Service, as a donation, in appreciation of their being put to this splendid public use.

Further, instead of doing just what your people have previously suggested as to the proposed headquarters area at Agate, west of the quarries, since the suggestions made to place this in our grove here are impractical from our ranch operations standpoint, as earlier stated in this letter, I am willing to give to this project enough land, adjoining Highway 29, and just east of the oiled State road, on which to locate your headquarters facilities, such as you, personally, mentioned to me, and space for the proposed museum and research center, to house the present collections of the Cook Museum of Natural History, appropriately and safely in fireproof quarters, properly exhibited, and, in the case of the library and research specimens, kept here permanently, cataloged, and with appropriate supervision and protection at all times. I must have positive, unalterable guarantees that these collections are to be kept in this area permanently, and not transferred for storage, or any other purposes, away from this area where they belong, and are of most effective use.

As to the area I suggest giving to you for this use, east of the Agate post office and grove, this is largely under irrigation, with old, approved State water rights, and where it is not, is so shallow to large amounts of fine quality ground water that very shallow wells can easily produce all the water you have any possible use for here, inside or out, to grow trees, shrubs, or anything you want to grow, to make it more pleasant. Likewise, the REA powerline runs along the highway, on this land, so all the electric power you have any possible uses for is on this land, now.

Our large grove across the road will offer material protection and shade, until you can get trees well growing there, and we will be more than glad to cooperate with you in letting your people use the picnic grounds in our grove, and in other practical matters.

Of course, we realize that the Park Service wants, where possible, to control all adjoining lands to avoid unfortunate or unwanted developments nearby, to detract from the atmosphere and broad effects of any National Park Service area.

However, as we own all the land on all sides, for a mile or more in all directions, and as we do not want offcolor, or undesirable people or establishments of any kind anywhere near here, any more than you people do, we can certainly cooperate

to see that this status is maintained, both now, and in the future, by going into such matters intelligently, and cooperatively, with you, when you decide to come here.

Your people spoke of the splendid view to be had from here, of this valley with the fossil quarry hills in the background. This is true, and it will look just the same, whether we own it or you do, and we will cooperate in the possible development of some special and desirable drives in the region, off land you own, and on lands we own. There are some features on the ranch here that we have not discussed with you or your people, that are of great interest to many people, if they know they are here. One of these is the *Daemonilia* area, you have already considered, but there are others of as much interest, which can be worked into a practical development here, without our having to run our ranch under serious handicaps, or your buying the whole thing from us. We know that the National Park Service has long been wanting a Grasslands National Park, and it is possible you might want to consider these two ranches as the nucleus of, or a type unit of, such an area. In that event, of course, the National Park Service would have to pay the commercial price for these lands, some 5,000 acres, as we cannot afford to donate them.

Word has recently reached us that Governor Morrison of Nebraska has recommended that legislation be passed to turn all of the Fort Robinson area over to the National Park Service as a national park; and that a bill is being prepared or may have been introduced by now in Congress, to implement this move.

If this should be done, what we have suggested here could be worked in to great advantage with some of the splendid, distinct, and unusual possibilities that exist in the Fort Robinson area, and with the Scottsbluff and Fort Laramie regional projects, as you will realize.

With kindest personal regards, in which my wife joins,

Yours very sincerely,

HAROLD J. COOK.



