



## The Barbours: A Family in Paleontology

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Article Summary: In the nineteenth and twentieth centuries one family was instrumental in all aspects of Nebraska paleontology, from discovery to identification, interpretation, and display. In one way or another they were all related to the eminent paleontologist Erwin H Barbour: his sister Carrie Barbour, son-in-law Harold Cook, and daughter Eleanor Barbour Cook.

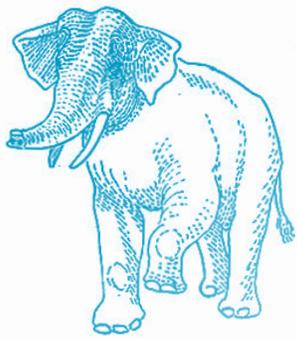
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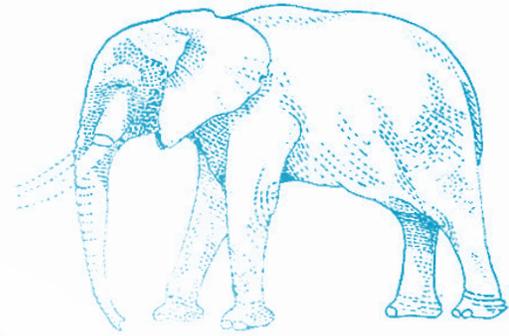
Photographs / Images: Erwin Barbour's sketches of fossil elephants, 1923; Erwin Barbour inspecting the mounting of an elephant skeleton in Morrill Hall, 1933; Erwin Barbour examining a mounted leg of a mammoth, 1915; Erwin Barbour; Carrie Barbour working on a dinosaur femur; Carrie with one of her completed specimens; Erwin and Carrie Barbour with other members of the Morrill Geological Field Expedition in 1897; Harold Cook; Barbour and Cook family tree; Eleanor B Cook; Eleanor Cook with her four daughters, early 1920s; group photo of the Barbour and Cook families, 1914



17 ELEPHAS INDIUS



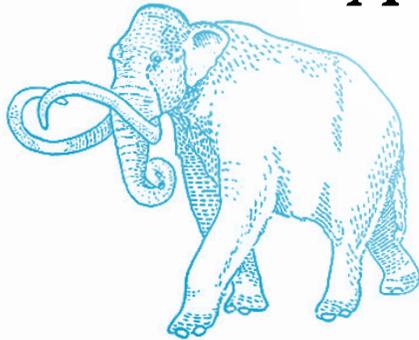
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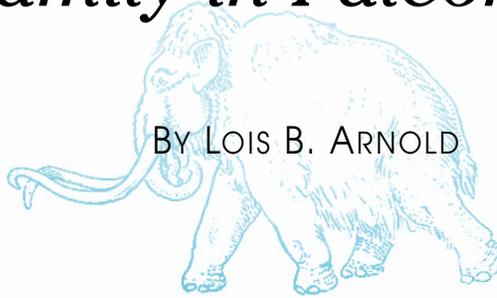
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# THE BARBOURS:

## *A Family in Paleontology*



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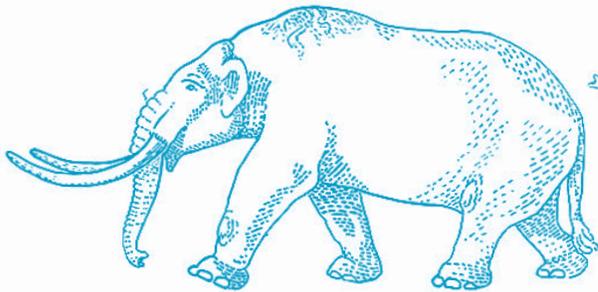


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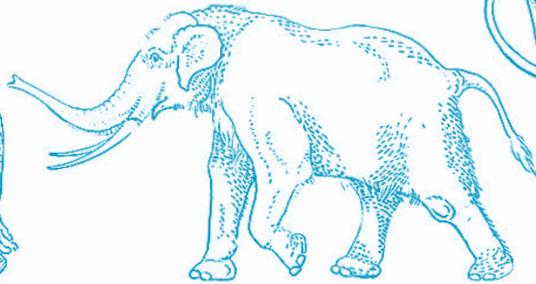
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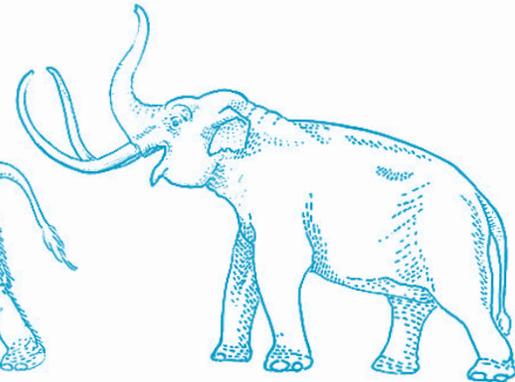
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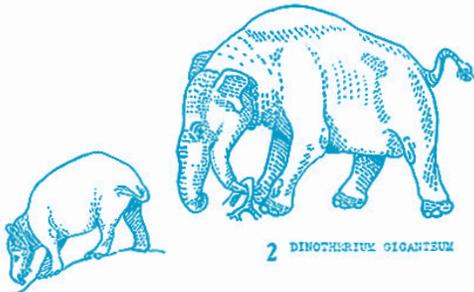
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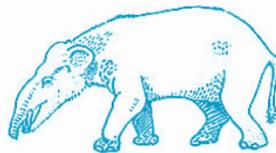
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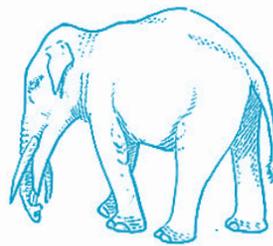
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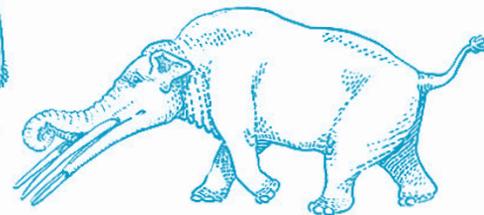
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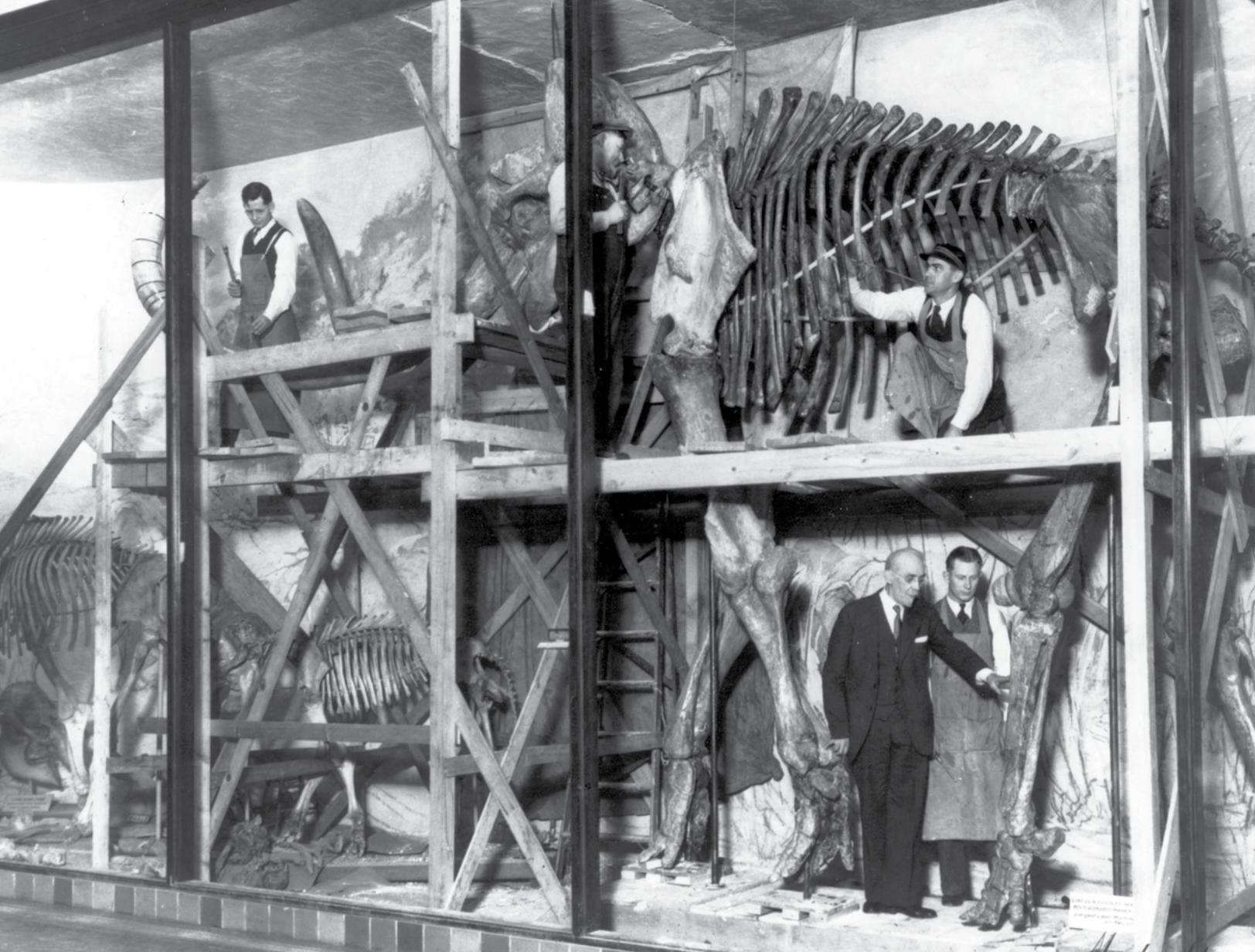


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Visitors to Nebraska are often surprised to find that the state is a major repository of fossils, both in the ground (in state parks such as Agate Fossil Beds National Monument) and in museums. Even state residents who have visited the University of Nebraska State Museum at Morrill Hall in Lincoln are amazed at the huge, ancient animal remains on display. Occasionally a magazine will highlight the discovery of fossil remains in the state. Smithsonian recently ran an

article on prehistoric horses in the Ashfall Fossil Beds.<sup>1</sup> *The Cellars of Time: Paleontology and Archeology in Nebraska* has provided a broader overview.<sup>2</sup> But who has been behind these historic finds and the museums, parks, and monuments where they can be seen? This article tells of a family that was instrumental in all aspects of Nebraska paleontology, from discovery to identification, interpretation, and display. In one way or another they

**Left: Erwin Barbour's sketches of fossil elephants, 1923.** Unless otherwise noted, all photos are from the Archives & Special Collections, University of Nebraska-Lincoln Libraries, hereafter abbreviated "UNL." UNL RG 32/01/01, DOI 921

**Above: Erwin Barbour (lower right in dark suit) inspects the mounting of an elephant skeleton in Morrill Hall, 1933.** UNL 32-01-01

Erwin Barbour examines a mounted leg of *Tetrabelodon osborni*, a species of mammoth, in 1915. UNL RG 32/01/01, DOI 433



were all related to the eminent paleontologist Erwin H. Barbour: his sister Carrie Barbour, son-in-law Harold Cook, and daughter Eleanor Barbour Cook.

#### Erwin Hinckley Barbour (1856–1947)

When Erwin Barbour left home to attend Yale College, he began a formative experience that would determine his future career in geology and paleontology. Born in Springfield, Indiana, he was then living in Oxford, Ohio, with his parents, Samuel Barbour and Adeline Hinckley Barbour. He had just completed high school and had a younger brother and three younger sisters. Their mother had a keen interest in natural history, which she passed on to her children. She used to take them out into the woods around their farm for a day of sketching, and made a herbarium of pressed flowers and plants, all carefully identified.<sup>3</sup>

Erwin completed preparatory work at Miami University in Oxford and then entered Yale in New Haven, Connecticut. There he studied under James Dwight Dana, professor of natural history and geology, and the eminent vertebrate paleontologist, O. C. Marsh, who became his mentor.<sup>4</sup> Marsh adopted what were then new methods of collecting in the field, in which bones and fragments, often in the original matrix in which they lay embedded, were labeled and shipped to laboratories. There the matrix material was carefully removed and entire

skeletons restored.<sup>5</sup> Erwin received his A.B. in 1882 and then accepted, through Marsh, a position with the U.S. Geological Survey as assistant paleontologist. He worked under Marsh until he received his Ph.D. in 1887, and for a year thereafter.<sup>6</sup>

On December 7, 1887, Erwin married Margaret Lamson of New Haven. Following the birth of their daughter Eleanor in February 1889, Erwin accepted an offer to teach at Iowa College in Grinnell, Iowa. His titles were Stone Professor of Natural History and director of their museum. In the summer of 1891 he left Grinnell to accept a position at the University of Nebraska. It was then that he made the first of many contributions to paleontology in the state: near Harrison he discovered and described “a new order of gigantic fossils.”<sup>7</sup> They were known as “Devil’s corkscrews” but were actually the spiral-shaped burrows of small ancient beavers.<sup>8</sup>

Field operations of this sort required several people, including university students, who camped out in the summer at sites from which fossils were dug out, boxed, and prepared for transport, usually by train. The University of Nebraska field parties under Professor Barbour’s direction were at work for decades beginning in the 1890s, using horses until the advent of cars and trucks. Erwin described one such trip in a letter to an Ohio State professor:

Last summer I took a party of six students . . . to the Bad Lands of Nebraska and South Dakota. At our destination we hired two heavy teams, and two covered wagons to carry tools, provisions and baggage. We spent the summer collecting . . . and got together so much material that it has swamped our workrooms and Museum.<sup>9</sup>

Such expeditions required major funding, which was provided by two main donors: Hector Maiben and Charles Morrill, with Morrill contributing the larger amount. Maiben, a farmer from Palmyra who was devoted to science, gave Erwin several thousand dollars over many years to be used for collecting and exhibiting fossil mammals found in Nebraska. In his honor, a huge mammoth was named *Archodiskodon maibeni*. Morrill began with a \$1,000 contribution to finance the 1892 fieldwork, known as the Morrill Geological Expedition, beginning an annual thousand-dollar commitment to supporting geological and paleontological research.<sup>10</sup> Every year until 1932, Barbour had a Morrill-sponsored expedition in the field, with as many as five parties out at one time.<sup>11</sup> This represented a huge monetary investment.

Charles Morrill was interested not only in obtaining fossils but also in exhibiting them. However, it took several years to realize his and Erwin's vision of a museum. In 1891, the museum seemed "more like a disturbed state of mind than a reality." The university chancellor at that time stated in a public address that "it consisted of the skeleton of a horse and a cow."<sup>12</sup> It occupied the east end of Nebraska Hall, which had been built in 1888. So much good material was collected from field expeditions in the early years that the main floor of the museum collapsed under the load. It was necessary to tear down and rebuild it, first boxing and removing the material.

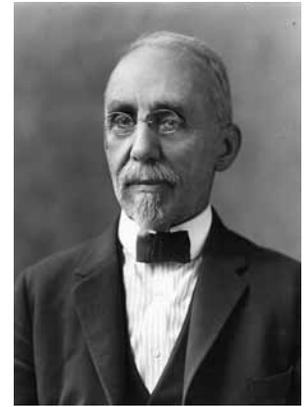
Plans for a new museum were drafted and ground was broken early in 1907. This building, part of a proposed larger structure, opened to the public in 1908. By 1910, the director reported that, "We are in a wing of a new fire proof building and are now in a position to get our collections in exhibition form."<sup>13</sup> Imagine the dismay when, on the night of March 6, 1912, a fire burned the oak stairway on four floors, damaging all parts of the building and its contents. The entire structure was flooded. "Everything had to be refinished, all glass replaced, the specimens cleaned and rearranged, and all labels rewritten, which entailed a serious loss of time, energy and materials."<sup>14</sup>

At this point, Morrill, who had been concerned about the danger of fire, argued for the development of a larger and entirely fireproof museum. Born in 1843, Morrill was growing old in the 1920s. He said that "at my advanced age if I am able to see the results—or part of the results you and I have obtained after more than 30 years labor in this line of work—it must come very soon." This sense of urgency applied to obtaining additional specimens for the museum as well as exhibiting them. Concerning the skeleton of an African elephant, for example, Morrill simply said "get it."<sup>15</sup> At the same time, the director was concerned about the inadequacy of the existing building: ". . . three or four times as much material is stored in attics, cellars, steam tunnels, and in downtown storerooms as is on exhibition. . . . In many cases there is insufficient room between cases to admit of opening the doors, which must be taken from their hinges to get at the material. Beauty and permanence of installation, systematic arrangement, and classification are rendered nearly impractical, if not impossible." Even more worrisome, active fieldwork, which would bring in even more specimens, had to be repressed, and acceptance of public and private donations was deferred and often forfeited.<sup>16</sup>

All this resulted in plans for a larger museum, for which Morrill was willing to contribute more funds. University chancellor Samuel Avery also championed the construction of a new building, and the regents sought funding from the state legislature, which in June 1925 appropriated \$300,000 for construction of a museum to be named Morrill Hall. It was dedicated on May 28, 1927, with Charles Morrill in attendance.<sup>17</sup> However, the building was not yet a museum. The collections had to be reinstalled. The process of ordering and building cases for the display of specimens, constructing and mounting the major free-standing exhibits, and painting murals took a great deal of time, effort—and money. Morrill Hall did not open to the public until a year later, when a festive opening reception was held on September 24, 1928. Work on displays continued well into 1929 when Erwin wrote that they were building nearly 600 linear feet of wall cases for the lower corridor at the same time that he was overseeing two work parties in the field.<sup>18</sup>

Charles Morrill never saw the great Elephant Hall or the completed museum. He fell sick in the fall of 1928 and died in December at age 86. In November Erwin had sent him a photo of "the three elephants in your elephant procession," saying that "this trio of elephants is very much admired and illustrates what the whole set is going to look like when done."<sup>19</sup> In a letter to Charles's son, Erwin said ". . . I have been in the harness so long, and so closely related to your father, that his death to me is about as it is to you children. It has been on my mind for weeks and will not be off my mind for months to come."<sup>20</sup>

Morrill Hall was swamped with visitors even before its official opening. On September 8, 1928, Erwin noted that "not less than 700 people went through the Museum. In that group were naturalists, including several from Korea, five or six from Japan, two from Bohemia, and so many from our own country I have lost count."<sup>21</sup> Some, like his good friend Henry Fairfield Osborn of the American Museum of Natural History in New York, had visited many times over the years. F. D. Figgins, director of the Denver Museum of Natural History, spent two days examining the museum, and said "the University has solved for the first time the way to display instructional and display material."<sup>22</sup> This was consistent with Morrill's earlier insistence on obtaining and exhibiting "material that you know will attract scientists as well as the public."<sup>23</sup> It did both well. *The Nebraska Farmer*, in an article that Erwin thought was "one of the best accounts of Morrill Hall that has been published as yet," not



Erwin H. Barbour.  
NSHS RG2411-0266



**Carrie Barbour working on a dinosaur femur.** UNL 13-02-01, 77-317-3



**Carrie later in life with one of her completed specimens.** UNL 76-1297-1

only described the holdings at length but also two theaters in its basement: "They are fitted for showing motion pictures and slides . . . and are used with the educational lectures given there."<sup>24</sup> There was even a "Curator of Visual Education," Marjorie Shanafelt, who was in charge of ordering material for classroom presentations.<sup>25</sup>

### **Carrie A. Barbour (1861-1942)**

Erwin's sister Carrie arrived at the university a year after he did, having left Iowa College in Grinnell to join him. Artistically inclined, she had studied at Oxford Female College in 1886-87 as a "Pupil in Extras Only."<sup>26</sup> Many local students came to Oxford College for music, art, or other special studies but were not full-time students. Carrie was small and not very robust; an uncle of hers, who was a doctor, insisted that she discontinue her college studies.<sup>27</sup> She then studied at an art school in Cincinnati before following Erwin to Iowa College, where she taught wood carving and china painting from 1890 to 1892.<sup>28</sup> During her first year teaching in the University of Nebraska's art department, her schedule left many afternoons free. Starting in the fall of 1892 she began to assist in the museum. In the early years, she and her brother formed the entire staff of the infant museum on the upper floor of old Nebraska Hall. But she was conflicted. After considering the dilemma for three months, she gave up her first career. She enjoyed teaching art, "But I realized I couldn't divide my time between the two jobs and accomplish much in either. Fossils fascinated me so much I decided to continue a thorough work with them."<sup>29</sup>

Carrie's interests gradually shifted to the sciences. She studied botany, physics, astronomy, and chemistry at the university. She also studied zoology and spent five summers teaching at Washington University's biological station on Friday Harbor in Puget Sound.<sup>30</sup> She turned to paleontology because her brother wanted her to come and work with him. At the same time she continued a lifelong interest in wood carving. They often collaborated on those projects, with Erwin designing and Carrie carving the intricate designs on chests and other pieces.<sup>31</sup> But her greatest collaboration with him, and contribution to Nebraska paleontology, was as a "Preparator" of fossil specimens that arrived from the field.

Slipping quietly thru a door marked 'No Admittance,' she would enter the room of sand-tables, plaster cups, hand tools and forge, which was her special domain. Here she identified, catalogued,

repaired and assembled fossil bones in unending variety. . . . Here on scarred tables are laid the great slabs of sandstone and clay, from which the bones, numerous as jackstraws in a pile, must be dug. Here skeletons are mounted, bases are fabricated, bones are repaired, and ironwork fitted. . . . And here, for days and weeks at a time, Carrie Barbour often worked on a single specimen, fitting together with expert fingers shattered fragments of bone that would defy a jig-saw puzzle expert.<sup>32</sup>

In a letter to Charles Morrill, Erwin praised Carrie's work on the tusks of a "long-jawed" fossil elephant, saying that she "has spent nearly a year putting the thin lamina of the tusks together. No one but of a person of her indomitable [*sic*] persistence could have gotten it together."<sup>33</sup> She worked with both vertebrate and invertebrate fossil material and very early on kept a valuable list of the museum's invertebrate fossil collections and what had been sent to whom. In a letter to Erwin, a paleontologist at Yale said, "Give my regards to your sister and tell her I appreciate her work with the invertebrates."<sup>34</sup>

Carrie was an assistant curator of the museum and became an instructor of paleontology in 1912, frequently helping students in the laboratory.<sup>35</sup> She was later named assistant professor of paleontology.<sup>36</sup> This was not a conventional role for women. Even more unusual was her work with Erwin and others collecting fossils in the field, and as an author of papers in paleontology. She was thus familiar with all aspects of paleontological work; her first published paper was "Some Methods of Collecting, Mounting and Preparing Fossils." Describing work in the "Corkscrew Beds" of Sioux County, she said:

These new and strange fossils. . . are embedded in soft sandstone, but it does not seem so soft to the student who works them out with pick and spade, digging through yards of this sandstone. However, after these spirals are secured and carefully packed, and finally reach the tables of our workroom, the sandstone is very dry and readily gives way before the toothed chisel and the whisk broom.<sup>37</sup>

Carrie described several expeditions undertaken by the university in her "Report on the Work of the Morrill Geological Expeditions of the University of Nebraska" in the journal of the American Association for the Advancement of Science.<sup>38</sup> She also

wrote about her “Observations on the Concretions of the Pierre Shale.”<sup>39</sup> In that article she described the huge, hard, mud balls that often contained fossil shells inside and outside. That fine-grained shale begins in eastern Nebraska and is exposed over broad areas of South Dakota, Wyoming, and Montana, and it is likely that she studied those exposures during an expedition to one or more of those places. The *Nebraska State Journal* reported one of her personal finds: “The Morrill geological collection has just been enriched by a series of fossils collected in the loess or bluff deposit of Nebraska by Miss Carrie A. Barber [sic], assistant curator of the museum.”<sup>40</sup> In 1915, Carrie presented a paper at a meeting of the Nebraska Academy of Science. Illustrated with slides, her talk concerned fossil sharks’ teeth and spines from the seas that once covered the state.<sup>41</sup>

One fossil find took place in Lincoln itself. On a Saturday morning in October 1909, readers of the *Journal* learned that workmen had unearthed large bones while excavating a cellar on U Street. The surprised homeowner, Mrs. Jennie Kimmel, notified the university chancellor, and Erwin and Carrie examined the bones and surrounding earth. They determined the bones were a shoulder blade, some ribs, and vertebrae of an ancestral elephant called a mammoth. They also found a large tusk. “While bones and teeth of this primitive animal have been found frequently in the state, this is the first specimen to have been found within the city.”<sup>42</sup>

Carrie and her brother were very close, as evidenced by the letters they exchanged over many years when trips took either of them away from the museum. Erwin often traveled to other museums and to meetings of paleontologists. Writing to Erwin from the museum in 1932, Carrie said, “We have enjoyed the beautiful postcards immensely and the news that you were having a fine time. . . . Everything is going smoothly here and it has been very comfortably cool. . . . It will be nice to have you back on the twelfth. It seems a long time since you left.”<sup>43</sup> Both of them visited relatives in Oxford and Muncie, Indiana, and wrote to each other about them. Erwin was solicitous and protective of Carrie, especially as she aged. She suffered from the heat during the summers in Lincoln, even saying that in 1936, “it was so hot here last summer that the popcorn popped in the corn field.”<sup>44</sup> He saw to it that she spent vacations at an inn in the Black Hills. In one letter to her he said, “I was hoping for a letter and each day Mrs. Barbour asks if I have heard from you. When you left, we didn’t seem to be sure whether you were going to visit



Eleanor first or go to the Hills, but we imagined you went to the Latchstring Inn.”<sup>45</sup>

Carrie Barbour died in 1942, having served the university and the field of paleontology for forty-nine years. In a letter to the University of Nebraska State Museum Field Party in Oshkosh on June 24, Charles Schultz wrote:

I had hoped to visit you by now but many things have changed my plans. . . . Miss Barbour passed away last Friday night and was buried on Monday. . . . I had a fine visit with Miss Barbour Friday morning. She was feeling fine and was ready to leave on her vacation. Dr. Barbour is over the shock now and is back to work again.<sup>46</sup>

### The Cooks

Of all the articles written by Erwin Barbour, one stands out as being of a more personal nature. It is a biographical essay about James Cook (1857-1942), the owner of the Agate Springs ranch on the Niobrara River.<sup>47</sup> A well-known cattleman, Cook purchased the 15,000-acre ranch from his father-in-law following his marriage to Kate Graham in 1886. Their son, Harold Cook, was born in 1887. As Erwin points out, “The Cook ranch has become famous the world over because of the fossil bone beds which occur at Agate Springs. This is probably the greatest bone bed known, and has attracted paleontologists from all the great institutions of the world.”<sup>48</sup> James himself has described the process by which these discoveries were made: In 1891

**Members of the Morrill Geological Field Expedition in 1897. Erwin Barbour is at the center left; his sister Carrie is seated to the right.**  
UNL 77-317-2



**Harold Cook.** Courtesy of Gretchen Meade

and '92, "Professor Barbour" and a party of students came to the ranch. "He was the first man to collect fossil material from and about these hills." In 1904, O. A. Peterson, of the Carnegie Institution in Pittsburgh, came to prospect for fossils. James and Harold took him to the hilly spot. He uncovered a large deposit of petrified bones and named the hills "The Agate Springs Fossil Quarry." The following season, in 1905, Erwin returned and opened a quarry on another hill, which he named University Hill. He called the hill that the Carnegie Institution explored Carnegie Hill.<sup>49</sup> After that, paleontologists from the National Museum in Washington, the American Museum of Natural History in New York City, the Colorado Museum in Denver, as well as from Harvard, Yale, Princeton, and Amherst, arrived to excavate fossil bones—and not without some institutional rivalry. Even local people were actively collecting.<sup>50</sup>

Not surprisingly, given his home surroundings and association with ongoing field work there, Harold became very interested in paleontology. His father noted that "hardly a day passes but what he gives a portion of his time to prospecting for fossils and he has located a great many."<sup>51</sup> In 1906-8 he studied under Erwin at the university in Lincoln and served as an assistant in the department.<sup>52</sup> In 1909 and 1910 he studied at Columbia University and did laboratory research in vertebrate paleontology at the American Museum of Natural History under Henry Fairfield Osborn and his associates. Afraid that Harold wouldn't return to the ranch, his father had refused to finance a Columbia education. But Harold had saved money from trapping muskrats and financed his study with extra work while in New York.

However, Harold was forced to curtail his studies in geology and paleontology and never received a degree. His mother suffered a mental breakdown in 1909 and was confined to a sanitarium, and his father wanted him to come home and help out at the ranch. In a personal letter to Erwin, an associate curator at the Yale Museum said, "It seems too bad if he will have to give up his work at Columbia permanently."<sup>53</sup> But he did. After his return in 1910, Harold filed on the land containing the quarries in order to protect them from wasteful and ignorant exploitation. In 1914 he secured title to 640 acres. He later relinquished ownership of the surface rights but he never gave up his rights to the fossil quarries and access to them.<sup>54</sup>

The letters between Erwin and Harold in this period indicate a close and friendly relationship. Erwin published articles by Harold in the *Bulletin*

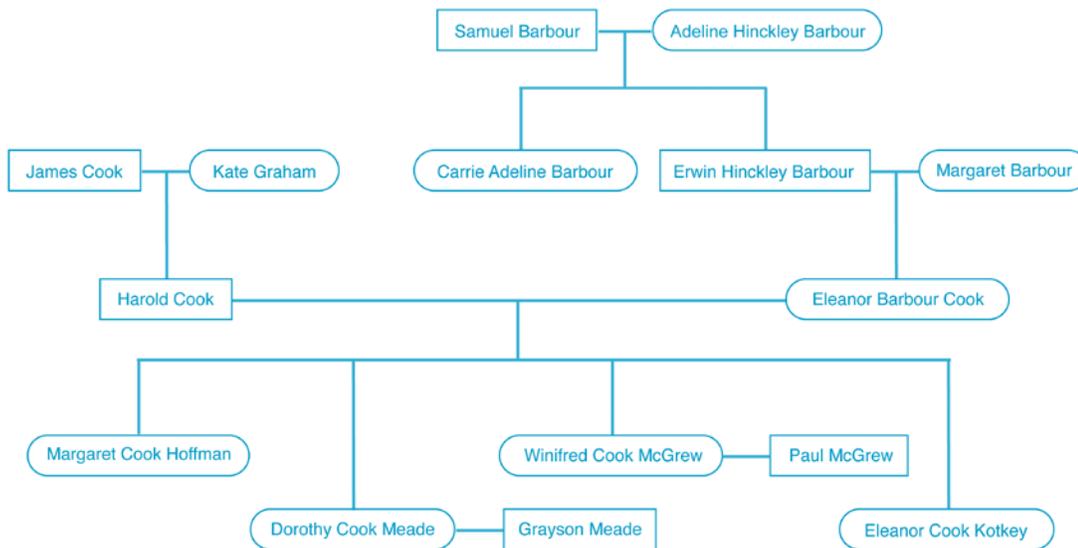
*of the Nebraska State Museum* and co-authored others with him, including one on two new fossil dogs (1914) and a new saber-toothed cat from Nebraska (1915).<sup>55</sup> By then, visits between the family members were frequent and often included his daughter, who greatly enjoyed going to the ranch. In a letter to James Cook in 1905 concerning a field party he had assembled to go to Agate that summer, Erwin said that "Eleanor begged so hard that I have agreed to let her accompany me on this trip." The following year, Harold wrote to Erwin, "Now that your plans and ours are settled for the summer, we will expect you to bring Eleanor here for a visit." Erwin replied that "Eleanor has had such an urgent invitation from your mother as well as from the rest of you that I think we will have to bring her along."<sup>56</sup> Eleanor was seventeen and Harold was nineteen then. A romance ensued and the relationship developed over the next few years when both were students at the university. In the summer of 1909, Erwin, his wife, and Eleanor were in Europe. He returned before the academic year began at the university; Eleanor and her mother stayed on during the fall and winter.<sup>57</sup> Following their return, Eleanor and Harold became engaged in the spring and were married in October 1910.

#### **Eleanor Barbour Cook (1889–1976)**

Following their marriage, Eleanor and Harold lived in a cabin on the Cook property until the homestead was "proved up." Then they moved to the ranch house at Agate Springs and had four daughters: Margaret (born in 1911); Dorothy (1913); Winifred (1915); and Eleanor (1917). Thus during the first decade of her marriage, with her mother-in-law institutionalized, Eleanor Cook was running a large household that included her father-in-law, James Cook; a young brother-in-law, John Cook; Harold's grandmother, Mary Graham; and James's brother, John Cook—in addition to her husband and children, whom she homeschooled.<sup>58</sup> A university student who spent the summer of 1919 at the ranch, described her as a good hostess with a rare gift for making guests feel at ease:

She was lively, witty, musically talented—played the flute beautifully—a marvelous storyteller with an uncommon talent for managing a family and at the same time setting the tone of a summer haven for all kinds of interesting visitors, including scientists from the American Museum of Natural History, Carnegie Museum and other institutions, who were uncovering the secrets of the Agate Springs fossil beds.<sup>59</sup>

## BARBOUR AND COOK FAMILY TREE



**Eleanor B. Cook.** Courtesy of Gretchen Meade

A company of Sioux Indians from the Pine Ridge reservation were also there that summer, encamped on the banks of the Niobrara, visiting their old friend Captain Cook. The Cooks had many Indian friends.

On August 19, 1919, the Nebraska Legislature ratified the Nineteenth Amendment to the U.S. Constitution, which gave women the right to vote the following year. The climate of excitement and opportunity was widespread.<sup>60</sup> For Eleanor, the next decade was one of major changes. That fall Harold became very ill with pneumonia. After he began to improve, he took the family to California to recover. When they returned to the ranch in the spring, Margaret Crozier, a nineteen-year-old who had worked for the family as a babysitter in California, returned with them to serve as a mother's helper. Over the next two years she and Harold had an affair, and he asked Eleanor for a divorce. He sent the family to Lincoln in the fall of 1922; Margaret returned to California but later returned. Meanwhile the Cooks kept the marital disruption secret. "Eleanor said nothing of the problem with her marriage even to her parents, hoping Harold would change his mind."<sup>61</sup>

In the fall of 1923, Eleanor and the children moved to a rented house in Crawford when an unexpected opportunity arose following the couple's separation: She and Harold were asked to give a series of lectures at what was called the Nebraska State Normal College at Chadron. The president, Robert Elliott, wanted lectures on the geology and fossils of the region. By then, Harold's background in geology and paleontology were well known and he was asked to join the faculty.<sup>62</sup> Eleanor's

expertise was not well known. She and Harold had both taken her father's class at the university and she had accompanied him in the field several times. In the summer of 1908, she had examined a new bed of diatomite twice while the Morrill Geological Expeditions were camped there. Her scientific bent became more evident when she was studying in Germany during her trip to Europe in 1910. She studied the flute and German at the Royal Conservatory in Dresden but also studied at the Dresden Technical University where she "enjoyed the privilege of a term of special study of modern diatoms."<sup>63</sup> She was the first woman graduate of the University of Nebraska to be elected to both Phi Beta Kappa and Sigma Xi, a scientific honorary society. She received a Bachelor of Science degree, not a Bachelor of Arts.

Despite her background, Eleanor felt an overwhelming sense of inadequacy at the thought of developing a series of lectures—actually a course—in geology. She said, "I keep finding all these other things I don't know and have to know at once in trying to get the work organized." Even as late as 1925 she claimed that she knew "nothing on earth about fossils," which certainly wasn't true.<sup>64</sup> By then, however, with the support of the college president, Robert Elliott, and with her father's assistance and occasional help from Harold, she had joined the faculty and developed a course in geology that she taught year round, including the summer. She even took students on field excursions to Agate Ranch.<sup>65</sup> To illustrate geological phenomena for her students, she exchanged glass "lantern

**Eleanor Cook with her four daughters, probably early 1920s.** Courtesy of Lynn Bain



slides” with her father: after Erwin gave a lecture at the university, his assistant would send the slides to Eleanor, who returned them after her own lecture. Erwin’s associate, E. F. Schramm, a professor of geology at the university, also helped and encouraged her.<sup>66</sup>

With four children to support, Eleanor was frequently in need of money. She taught English, geology, and paleontology, and taught summer school to supplement her income. In the spring of 1925, a letter to her father began, “Thank you ever so much for the ten dollars.” Later that year Erwin bought her a house in Chadron, with which they were all delighted, and paid the taxes on it thereafter.<sup>67</sup> There is no evidence that Harold was contributing to the household expenses, though he helped them get settled in their new home. Eleanor told her father that “Difficulties continue to heap themselves upon Harold in connection with the ranch and it is a pleasure to him to know we are looked after.” He traveled frequently to various locations in Nebraska, Wyoming, and Colorado in connection with his work assignments.<sup>68</sup> He also shuttled back and forth between his family in Chadron and his second wife in Denver, where Harold was Honorary Curator of Paleontology at the Museum of Natural History from 1925 to 1927, an unpaid position. He was Curator of Paleontology there from 1928 to 1930.<sup>69</sup> He obtained a divorce and married Margaret Crozier in Albuquerque,

New Mexico, in 1927. After learning indirectly about the marriage, Eleanor filed for and was granted a divorce in Nebraska in 1929 in order to regularize the situation. Harold and Margaret then remarried in Colorado Springs in 1930.<sup>70</sup> Erwin was outraged when he found out what had happened, and it marked the end of his respect for and affectionate relationship with Harold.<sup>71</sup>

As early as 1924, President Elliott was talking about a museum at the college. Eleanor sent her father a blueprint of a “museum room” and indicated that Elliott “wants everything portable as he is talking museum building very hard already and he won’t have anything that won’t be adaptable to a change for the better.”<sup>72</sup> She had already assembled a collection of minerals, rocks, and fossils for her classes, including some from Harold and from her father. Eleanor thought the college would benefit from having a museum, and in the 1930s she and Elliott visited Morrill Hall in Lincoln and discussed it with Erwin. He suggested adding built-in display cases to the basement of Crites Hall, which was then under construction. Elliott liked the idea. Crites Hall was finished in 1938 and Eleanor began receiving material from Morrill Hall and many other institutions, including the Colorado Museum of Natural History, the Field Museum in Chicago, and the American Museum of Natural History in New York City. The collections included 585 vertebrate fossils, 637 invertebrate fossils, 700 minerals, 284 shells and corals, 111 mounted birds, and 19 mounted mammals. In addition to her teaching duties at the college, Eleanor became the museum’s curator. Albert Potter, a former geology student at the university, became assistant curator.<sup>73</sup> Eleanor retired in 1941 and moved to Lincoln to live with her parents until their deaths.

### **The Barbour Legacy**

With assistance from her father and the support of the college president, Eleanor brought the study of geology and paleontology to the western part of the state—in addition to founding the museum. The Eleanor Barbour Cook Museum of Geology is still in existence today at what is now Chadron State College. Two of her daughters, Dorothy and Winifred, married men (Grayson Meade and Paul McGrew) who became vertebrate paleontologists, extending the family legacy in that field. Both men had been Erwin’s students at the university.

Eleanor’s Aunt Carrie, of whom she was very fond, effectively has a memorial in Morrill Hall in the forms of fossil animals that she painstakingly reconstructed over nearly fifty years of service to the

university. She was ahead of her time: working in the field, teaching paleontology, and publishing papers. Eleanor's husband Harold is remembered not only for his publications and wide-ranging interests in geology and paleontology, but especially for his role in protecting and developing the Agate Springs Ranch and fossil beds, which are now a national monument. Though he did not complete an academic degree, the South Dakota School of Mines awarded him an honorary doctorate in 1952.<sup>74</sup>

Erwin Barbour lived a long and exceptionally productive life, dying at the age of ninety-one. With the financial assistance and support of his patron, Charles Morrill, he established the science of paleontology in a state richly endowed with fossils and an outstanding museum to house them. The Morrill expeditions alone yielded hundreds of published papers authored or coauthored by Barbour and illustrated with his drawings. Erwin published approximately 350 articles on scientific subjects, ranging from short notes to reports of several hundred pages.<sup>75</sup> Many of these were descriptions of previously unknown species, such as *Torynobelodon Loomisi*, a “shovel-tusker” elephant. Erwin was an expert on elephant evolution, but also a person of broad interests ranging from vertebrate paleontology to economic geology and the natural resources of the state, and even to topics of local interest such as windmills. A limited online listing of his works includes an article on cement manufacture in the state, the Nebraska meteor and meteorite of August 8, 1933, fossil jellyfish and coral, and a paleontological and geologic consideration of early man in Nebraska—in addition to articles on ancient bison, fossil dogs, horses, tortoises, a giant camel, and a saber-toothed cat. Also included in that listing is his paper, written in 1931, titled “Evidence of Dinosaurs in Nebraska.”<sup>76</sup> Dinosaurs were not then thought to occur in the state. Erwin Barbour served as chairman of the Department of Geology at the University of Nebraska from 1891 to 1934, as state geologist and head of the Nebraska Geological Survey from 1891 to 1941, and as director of the University of Nebraska State Museum from 1891 to 1941.<sup>77</sup>

**Group photo of the Barbour and Cook Families, 1914.**  
UNL RG 32/01/01, DOI 1011



## NOTES

*Several people assisted my research on the Barbour family. Martha Vestecka Miller of nebraskaresearch.com was particularly helpful in locating material in Nebraska Hall, elsewhere at the University in Lincoln, and at the Nebraska State Historical Society. George Corner, collection manager for the Division of Vertebrate Paleontology, also assisted me. Michael Leite, geoscience professor and curator of the Eleanor Barbour Cook Collection at Chadron State College, provided information concerning her and the museum there. Her granddaughters, Gretchen Meade and Lynn Bain, provided photos and other material from their personal collections. Librarians at Chadron State College, at Love Library at the University of Nebraska-Lincoln, and at the Library of the Academy of Natural Sciences in Philadelphia were also helpful.*

### Archives

In the notes following, the University of Nebraska State Museum Archives cited have been identified by the following abbreviation: UNSMA. Correspondence to and from Erwin Barbour is located there.



<sup>1</sup> Megan Gambino, "Prehistoric Horses," *Smithsonian* (January 2012): 48-49.

<sup>2</sup> *NEBRASKAland Magazine*, 72, no. 1 (January/February 1994): 6-81.

<sup>3</sup> C. Bertrand Schultz, "Memorial to Erwin Hinckley Barber," Annual Report for 1947, *Proceedings Volume of the Geological Society of America*, 109; Dorothy Cook Meade (Erwin's granddaughter) to Lois Arnold, Mar. 18, 1977.

<sup>4</sup> E. F. Schramm, "Father of Nebraska Paleontology," *The Nebraska Alumnus*, January 1933, 4.

<sup>5</sup> George P. Merrill, *The First One Hundred Years of American Geology* (New York: Hafner, 1969), 528-29.

<sup>6</sup> Schultz, "Memorial," 109. It is noteworthy that both he and Schramm report that Erwin was artistically talented. As an undergraduate, he contributed several drawings and cartoons to a *Yale Almanac* and he illustrated the majority of his later papers himself with his own drawings and photographs.

<sup>7</sup> Ibid.

<sup>8</sup> *The Cellars of Time*, 40.

<sup>9</sup> Erwin H. Barbour (hereafter EHB) to David Kellicott, Dec. 29, 1892, UNSMA.

<sup>10</sup> Charles Henry Morrill, *The Morrills and Reminiscences* (Chicago and Lincoln: University Publishing Co., 1918), 35.

<sup>11</sup> Schramm, "Father of Nebraska Paleontology," 5.

<sup>12</sup> E. H. Barbour, "Some Memories of Sandstorms," *The Nebraska Alumnus*, March 1941, 3.

<sup>13</sup> EHB to W. B. Scott of Princeton University, Feb. 3, 1910, UNSMA.

<sup>14</sup> E. H. Barbour, "The Nebraska State Museum, A Preliminary Report," *Bulletin 1*, 1 (December 1924): 7.

<sup>15</sup> Charles Morrill to EHB, Nov. 3, 1925, UNSMA.

<sup>16</sup> EHB, "The Nebraska State Museum," 8.

<sup>17</sup> Anne Opegard, "For Posterity: Namesakes of Four University of Nebraska Buildings," *Nebraska History* 78 (Fall 1997), accessed Sept. 18, 2012, <http://historicbuildings.unl.edu/building.php>.

<sup>18</sup> EHB to Richard Lull of the Peabody Museum at Yale, June 21, 1929, UNSMA.

<sup>19</sup> EHB to Charles Morrill, Nov. 10, 1928, UNSMA.

<sup>20</sup> EHB to Arthur Morrill, Dec. 17, 1928, UNSMA.

<sup>21</sup> EHB to Richard Lull, UNSMA.

<sup>22</sup> EHB to Charles Morrill, Sept. 1, 1928, UNSMA.

<sup>23</sup> Charles Morrill to EHB, Oct. ?, 1927, UNSMA.

<sup>24</sup> EHB to Charles Morrill, Nov. 16, 1928, UNSMA; Lynn Cox, "Morrill Hall Houses Pre-Historic Nebraska," *Nebraska Farmer*, Nov. 10, 1928, 1738ff.

<sup>25</sup> Marjorie Shanafelt to Edward Burns, May 14, 1928, UNSMA.

<sup>26</sup> *Oxford Female College Bulletin* (1885-86): 7. There is no indication that she attended, or graduated, at the college level; Mary Persyn, Miami University Libraries, to author, Apr. 6, 1977.

<sup>27</sup> Carrie may have suffered from epilepsy. Dorothy Cook Meade to Lois Arnold, Mar. 18, 1977; George Corner, "Carrie Adeline Barbour," "History of the Nebraska State Museum" (2011), 187.

<sup>28</sup> Dorothy Cook Meade, "Carrie Adeline Barber" (n.p., n.d.).

<sup>29</sup> Ruth Henderson, "She is Assistant Curator," *The Nebraska Alumnus*, April 1936, 14, 30.

<sup>30</sup> "Footnotes," *Lincoln Sunday Journal and Star*, Aug. 10, 1941, D4; "Carrie A. Barbour," *The Nebraska Alumnus*, October 1926.

<sup>31</sup> Dorothy Cook Meade to Lois Arnold, Mar. 18, 1977.

<sup>32</sup> "Footnotes."

<sup>33</sup> EHB to [Arthur or Charles?] Morrill, Sept. 28, 1928, UNSMA.

<sup>34</sup> Charles Schuchert to EHB, Sept. 11, 1911, UNSMA.

<sup>35</sup> "Prof. Stout Named as Dean of Engineering College," *The Lincoln Daily News*, Apr. 9, 1912, 10.

<sup>36</sup> University of Nebraska, Roster of Faculty, July 19, 1936, University of Nebraska Library.

<sup>37</sup> "Carrie Adeline Barbour," *Proceedings and Collections, Nebraska State Historical Society*, 2<sup>nd</sup> Series, 2 (Lincoln: State Journal Co., 1898): 258.

<sup>38</sup> *Science*, New Series, 11, no. 283 (June 1, 1900): 856-58.

<sup>39</sup> Carrie Barbour, "Observations on the Concretions of the Pierre Shale," *Proceedings, 1897-1900 Nebraska Academy of Sciences Publications*, 7 (Lincoln: James North and Co. 1901).

<sup>40</sup> "University Notes," *Nebraska State Journal*, Nov. 11, 1900, 5.

<sup>41</sup> "Scientists Here for Big Meeting," *Lincoln Daily Star*, May 21, 1915, 2.

<sup>42</sup> "Find Bones of Mammoth: Obtain Part of Large Tusk," *Nebraska State Journal*, Oct. 16, 1909, 8.

<sup>43</sup> Carrie Barbour to EHB, July 5, 1932, UNSMA.

<sup>44</sup> EHB to Rebecca Barbour (a cousin), Mar. 17, 1937, UNSMA.

- <sup>45</sup> EHB to Carrie Barbour, Aug. 20, 1936, UNSMA.
- <sup>46</sup> Carrie Barbour File, EHB Correspondence, UNSMA.
- <sup>47</sup> EHB, "James Henry Cook," in Albert Watkins, *History of Nebraska*. (Lincoln: Western Publishing and Engraving Co., 1913) 3: 477-82.
- <sup>48</sup> *Ibid.*, 481-82.
- <sup>49</sup> James H. Cook, *Fifty Years on the Old Frontier* (New Haven: Yale University Press, 1923), assigned in 1954 to the University of Oklahoma Press, third printing (1980), 236.
- <sup>50</sup> Harold Cook to EHB, May 18, Aug. 28, 1922, UNSMA.
- <sup>51</sup> James Cook to EHB, Nov. 21, 1905, UNSMA.
- <sup>52</sup> EHB to Harold Cook, June 17, 1906, UNSMA.
- <sup>53</sup> Richard Lull to EHB, Feb. 5, 1909, UNSMA.
- <sup>54</sup> R. J. Roberts, "The History of Agate Springs," *Nebraska History*, 47, no. 3 (September 1966): 287; Dorothy Cook Meade, "Cook Family: Agate and the Cooks," *Sioux County Centennial History 1886-1986* (Dallas: Curtis Media Corp., 1986), 364-65. Now a National Monument, the National Park Service has produced an excellent and well-researched Administrative History of the Agate Fossil Beds based on the Cook Papers Collection there, accessed Apr. 18, 2012, [http://www.nps.gov/history/history/online\\_books/agfo/adhi/adhi/1a-1e.htm](http://www.nps.gov/history/history/online_books/agfo/adhi/adhi/1a-1e.htm).
- <sup>55</sup> Schultz, "Memorial," 114.
- <sup>56</sup> EHB to James Cook, July 11, 1905; Harold Cook to EHB, June 21, 1906; EHB to Harold Cook, July 2, 1906, UNSMA.
- <sup>57</sup> EHB to W. B. Scott of Princeton University, Feb. 3, 1910, UNSMA.
- <sup>58</sup> Eleanor (Barbour) Cook, obituary, *The Harrison Sun*, Mar. 25, 1976, accessed Jan. 26, 2012, <http://www.niobrara-countylibrary.org/obituaries/index.php?id=872>.
- <sup>59</sup> James C. Wilson to "Speak Up," Nebraska Game and Parks Commission, Lincoln, Mar. 21, 1988, courtesy of Gretchen Meade.
- <sup>60</sup> Ann L. Wiegman Wilhite, "Sixty-Five Years Till Victory: A History of Woman Suffrage in Nebraska," *Nebraska History*, 49 (Summer 1968): 149-63.
- <sup>61</sup> Dorothy Cook Meade to her daughter, Gretchen Meade, Aug. 30, 1912, courtesy of Gretchen Meade.
- <sup>62</sup> Harold Cook to EHB, May 29, 1922, UNSMA. Harold did not join the faculty but did give occasional lectures at the college.
- <sup>63</sup> Eleanor (Barbour) Cook obituary; Eleanor Barbour, "Preliminary Notice of a Newly Discovered Bed of Miocene Diatoms," *Nebraska Geological Survey*, 3, Pt. 12 (1910), 3-8. Diatoms are tiny, unicellular or colonial algae. Diatomaceous deposits are found in several Nebraska counties.
- <sup>64</sup> Eleanor Barbour Cook (hereafter EBC) to EHB, 1924? and 1925?, UNSMA. Eleanor's many letters to her father were rarely dated; usually only the day of the week was noted, such as "Saturday," in the case of the 1924 letter quoted from here. The year when they were written is known only from the EHB UNSMA files, which are organized by year.
- <sup>65</sup> EHB to Henry F. Osborn, Sept 1, 1924, UNSMA; Nebraska State Normal College, *Annual Catalog 1925-26* (Chadron: July 1926), 7, 48-49.
- <sup>66</sup> EBC to EHB, two letters, including one written on Thanksgiving, possibly in 1925; the other one, referring to Schramm, was probably written in 1924, UNSMA.
- <sup>67</sup> EBC to EHB, 1925; Belle Quinn, Dawes Co. Treasurer, to EHB, Sept 5, 1926, UNSMA.
- <sup>68</sup> EBC to EHB, 1925, UNSMA. As reported in his 1962 obituary, Harold had wideranging interests. He consulted on oil geology, contributed to the development of the Scotts Bluff National Monument, and wrote on the geological and paleontological evidence for ancient man in America.
- <sup>69</sup> Kristine Hagland, archivist at the Denver Museum of Nature and Science (formerly the Denver Museum of Natural History), email to Lois Arnold, Apr. 4, 2012.
- <sup>70</sup> Gretchen Meade, email to Lois Arnold, Aug. 29, 2012.
- <sup>71</sup> When Erwin found out, in the spring of 1928, he wrote to F. D. Figgins, the director of the Denver Museum, to ascertain what he knew. Figgins indicated that in the late summer of 1927, Harold had left Denver very suddenly, telling the museum secretary that he did not want to leave an address and did not want to be communicated with. Figgins resented being made a confidant and disapproved of the whole proceedings. EHB to Nellie Vail, possibly a sister of his, May 8, 1928, UNSMA; F. D. Figgins to EHB, June 6, 1928, letter courtesy of Lynn Bain, a grand-daughter of EBC.
- <sup>72</sup> EBC to EHB, 1924, UNSMA.
- <sup>73</sup> Dorothy Cook Meade, "What Happened to the Museum?," in *Continuing to Thrive after 75 Years—The Story of Chadron State College 1911-1986*, comp., Con Marshall (Freeman, SD: Pine Hill Press, 1986), 171-73; Michael Leite, "The Eleanor Barbour Cook Museum of Geology," accessed Mar. 27, 2012, <http://www.csc.edu/sci/ebcmuseum>.
- <sup>74</sup> Obituary, *Chadron Record*, Oct. 1, 1962, 3.
- <sup>75</sup> Schultz, "Memorial," 109.
- <sup>76</sup> Openlibrary.org, accessed Feb. 8, 2011, [http://openlibrary.org/authors/Erwin\\_Hinckley\\_Barbour](http://openlibrary.org/authors/Erwin_Hinckley_Barbour).
- <sup>77</sup> Schultz, "Memorial," 109.