In 1893 the city of Chicago hosted the World’s Columbian Exposition, a celebration inspired by the 400th anniversary of Columbus’s arrival in the Americas. The fair attracted global attention and inspired a generation to rethink architecture, science, industry, the arts, and city planning. Even the severe economic depression that started that year would not dampen the enthusiasm awakened by the exposition’s displays, performances, buildings, and demonstrations.

Spurred in part by the exposition, Denver’s most prominent citizens visited Edwin Carter in his mountain home in Breckenridge, Colorado (Fig. 1.1). Headed by Governor John L. Routt, the Denver entourage knew Carter held a magnificent collection of Colorado wildlife. Carter (Fig. 1.2) had come to Colorado during the 1859 Pikes Peak gold rush and had had modest success. He retired several years later, settled in a tiny cabin in Breckenridge in 1868, and pursued his passion for natural history, particularly the study of birds and mammals. Carter was a wholehearted collector, as one historian has written:

Edwin Carter found such joy in collecting that he too structured his life and work around it. The prospecting and tanning that filled his summers played second fiddle to the wintertime pleasures of tramping through the woods, observing, tracking, and taking game.

Accompanied by a burro and his dog, Bismark, who pulled a small sled with food and supplies, the tall, thin miner roamed the hills in snowshoes, watching the small movements of the birds in trees and the way the snow dropped from the branches.
when brushed by scurrying animals. Carter could scan the horizon for hours, looking for any sudden motion in the trees or grass. Once he located an animal or bird, he watched even more closely. Each spring, for weeks on end, he would take his field glasses and lie in the sage studying the strutting of sage-grouse on parade, to memorize their movements.¹

Carter had amassed a collection of more than 3,000 specimens, and the Denver group wanted to see if he would agree to sell it. Colorado’s business and political leaders believed that the assembly of birds and mammals should be moved to Denver, where it could be seen and enjoyed by more people. Carter, too, wanted to guarantee the future of his life’s work. A museum in the state’s capital seemed the culmination of a dream for Carter. “As Denver is destined to be among the great cities of the Continent,” Carter predicted, “so will a museum here founded … grow up to be one of the great entertaining and educational institutions of the country.”²

The World’s Columbian Exposition inspired Denver’s leaders to contemplate not only Carter’s collection and a museum but also a new approach to city planning. The City Beautiful movement was a philosophy of urban planning reform that focused on the monumental magnificence and beautification of cities. As demonstrated in Chicago, a city shaped with Greek Revival architecture, parks, gardens, and public art could rouse civic virtue and enhance the quality of life of all citizens.

One visitor to the exposition was Robert W. Speer, then working as the Denver city auditor. Stirred by the vision of Chicago’s “White City,” Speer encouraged Denver to incorporate the City Beautiful movement into its planning when he became mayor in 1904. Mayor Speer was instrumental in Denver’s development and was a great proponent of the new natural history museum in its early, uncertain days. Upon Speer’s death in 1918, the Museum’s annual report relayed, “Though not on our Board except in an official capacity, Mayor Robert W. Speer was ever the Museum’s unfailing friend, whose goodwill and backing so greatly helped to complete the building and maintain our work.”

The City Beautiful movement would come to directly shape the setting of Denver’s natural history museum. City Park, the Museum’s future home, was formally founded in 1882. The area was first considered to be a “tree-less wasteland,” but it was gradually landscaped and filled with trees, fed by water from City Ditch. The City Beautiful movement further shaped the park’s layout, impressive monuments, and the Greek Revival–style museum that was built on a hill at the park’s eastern edge. Over the course of the 20th century, City Park became the crown jewel of Denver’s park system, prominent as a place for socializing and play in all seasons. There were sports and picnics in the summer, skating and sledding in the winter. Music and

Figure 1.2. Naturalist Edwin Carter.
dance were featured at the bandstand, placed next to one of the country’s first electric fountains, with its dramatic light and dancing water display. The natural history museum would come to be seen as part of this lively mix of social and cultural events.

A New Museum

In 1892, following the Colorado dignitaries’ visit to his museum, Carter agreed to sell his collection to help found a museum in Denver. But years of delay followed. Carter’s last conditions for sale required that he receive a one-time payment of $10,000 for his collection as well as a monthly salary of $150 for a lifetime appointment as curator. He also wanted a corporation to be formed and, always fearful of fire destroying his collection, he demanded a fireproof building be erected. Sadly, Carter would not live to see his collection installed in the new museum: He died in February 1900, probably the result of arsenic poisoning, a lamentable occupational hazard for taxidermists at the time.

The Museum’s first minutes were recorded in 1897 and building plans were drawn the next year. But an agreement was not reached until December 18, 1899, when a group of Denver businessmen formally met for the fourth time to discuss how to establish a museum and library of natural history. The Museum’s incorporators were 15 men of high standing in Colorado: Junius F. Brown, John F. Campion, William Church, Governor James B. Grant, Charles J. Hughes Jr., William H. James, Charles B. Kountze, Elmer W. Merritt, William Byrd Page, Thomas M. Patterson, Henry M. Porter, Albert E. Reynolds, Frank M. Taylor, Joseph A. Thatcher, and Charles S. Thomas. On December 6, 1900, the Colorado Museum of Natural History was formally incorporated. John F. Campion (Fig. 1.3) became the Museum’s first Board president, a position he held until his death in 1916.

Campion was the man most responsible for getting the Museum started during Denver’s exciting time of city growth and civic pride. Campion had done well with hard rock mines in the Rockies and, after 1900, had a second successful career growing sugar beets. He had an impressive gold collection, but his main role in the Museum’s founding was as its major champion. He led negotiations with Carter for obtaining the wildlife collection. Campion knew everybody who was anybody, such as Margaret “Molly” Brown and J. J. Brown, who were friends and professional associates through mining. The Museum became a reality in large part because of Campion’s perseverance and untiring efforts, particularly after Carter’s untimely death.

The Museum’s founding in 1900 coincided with the signing of a contract with the City of Denver that would provide a building site and funding toward construction. The Museum pledged to raise an additional $25,000 or more from personal contributions. A Board of Trustees was created and empowered to establish a museum worthy of the state, which
was only 24 years old at the time. The new corporation’s purpose was clear: “To establish, erect, and maintain in the City of Denver, a Museum of Natural History to encourage and aid the study of Natural Science, [and] to advance the general knowledge of kindred subjects.”

In February 1901 the Trustees appointed John T. Mason as volunteer manager for the Museum (Fig. 1.4). Originally from England, Mason made his money as a department store magnate in Texas before coming to Denver. He was a collector of butterflies and had promised his singular collection to the Museum (it was finally formally donated in 1918). In its first years, the Museum had no funds to compensate a professional director; Mason’s wealth allowed him to be the Museum’s unpaid overseer from 1901 until 1907. Mason became the de facto curator, fundraiser, construction and building manager, and human resources director all rolled into one, ensuring that the building went up, exhibits were constructed, new collections were acquired, and the employees were paid and content.

Mason was soon joined by taxidermist Rudolph Borcherdt and his son, Victor, who were employed to arrange and prepare the Carter Collection (Fig. 1.5). Later, Victor would construct the first naturalistic habitat of its kind in North America, Bear Mountain, at the Denver Zoo after becoming the zoo’s director. It is likely that Victor used his experiences constructing natural history exhibits for mounted animals to create naturalized displays for live animals. Victor’s work at the Denver Zoo drew the attention of the Saint Louis Zoo, which hired him to create natural habitat exhibits there.

In the autumn of 1901, the Museum’s present site in City Park was selected. The building’s first portion, called the east wing, was finished in July 1903. The east wing was not immediately open to the public; it housed a workshop and heating plant. Beginning in 1908, an art gallery would occupy its top floor (Fig. 1.6). The central wing was completed next; it was used to present the first natural history exhibits. At the time, the Museum was a single structure in tree-less City Park on the edge of town (Fig. 1.7). Ranchers drove their cattle to market down Colorado Boulevard, which was then a dirt road. Among only a few established neighbors, the Museum was surrounded by hay and oat farms (Fig. 1.8).

The Museum opened its doors to the public on July 1, 1908—a rushed
opening, before all of the exhibits were ready—to coincide with the Democratic National Convention held a week later at the Denver Arena Auditorium. The Museum debuted with exhibits of more than 400 natural history specimens out of a collection of some 3,400 mammals, birds, rocks, and minerals (Fig. 1.9). The exhibits were habitat groups and birds, a geology exhibit, and a hall of European and American fine art. One highlight of the early exhibits was “Tom’s Baby,” a large piece of gold discovered near Breckenridge in 1887. It was donated as part of the Campion crystallized gold collection, most of which has been on continuous display since the Museum’s opening.

Another highlight was the art exhibit. The Denver Artists Club, predecessor to the Denver Art Museum, had no regular place to display the work of its members. In 1903, the club made a deal with the Museum’s Board to use the east wing’s top floor for art displays. The club eventually grew weary of the endless delays to open the wing and pulled out of the deal. Nevertheless, led by Campion, the Museum still used the space to display artwork owned by its Board members and other prominent citizens, such as Margaret “Molly” Brown. It is possible that Brown was bringing back art pieces from Europe for the Museum on her fateful Titanic voyage. The Art Gallery remained in place until 1932.

The Museum’s early years were deeply influenced by New York’s American Museum of Natural History. As with Denver’s Museum, the American was founded by businessmen, and the two institutions even shared similar bylaws. The early exhibit cases in Denver were modeled on those at the American. Additionally, several of the Museum’s early influential employees came from New York. One of the Museum’s first taxidermists,
Albert C. Rogers, worked for the American before coming to Denver. The Museum’s first professional director, Jesse D. Figgins, was hired away from the American, where he served as the head of exhibit preparations. Robert J. Niedrach, who began his career at the Museum in 1913 as a taxidermist, was a protégé of the American Museum’s Frank Chapman. Over the years Niedrach would have lasting influence on the Museum’s dioramas and educational programs.

Expeditions in the field, mainly for exhibition-quality specimens and building the collection, were an early part of the Museum’s efforts. In 1909 ornithologist Alexander Wetmore collected birds for the Museum’s collections (Fig. 1.10). Wetmore would go on to become the secretary of the Smithsonian Institution. Ornithologist L. J. Hersey, geologist William S. Ward, and exhibitor Rudolph Borcherdt all collected in Colorado for the Museum. It would not be until 1916 that the Museum would begin to conduct expeditions outside the state.

By the time the Museum had opened its doors, it had come a long way from the seed planted by the World’s Columbian Exposition and the need to find a home for Edwin Carter’s collection. But despite its success in getting to the point of having a beautiful building in a burgeoning park, the first years were difficult ones. During the first year of public operations, the Museum suffered troublesome financial problems. Staff members were laid off; the Board even recommended closing the Museum after only three months. More than once Mayor Speer intervened, asking the bank to allow overdrafts by the fledgling institution.

The Figgins Years, 1910–1936

The Museum’s fate was in part sealed on August 17, 1867, when Jesse Dade Figgins was born in Jefferson, Maryland. Although as a young man his career path was directed to the Methodist ministry, his insatiable curiosity in ornithology, mammalogy, and herpetology led him to collect specimens throughout the Atlantic Seaboard. His collections and studies gained him recognition and landed Figgins his first museum job at the U.S. National Museum, then the Smithsonian’s prime institution of anthropology, art, geology, history, and natural history.

During his sixth and seventh expeditions to Greenland, in 1896–1897, Commander Robert Edwin Peary hired Figgins as the expedition’s ornithologist and mammalogist. Among the purposes of these expeditions was the removal of a 36-plus-ton meteorite near Cape York, Greenland, to the American Museum of Natural History. According to one report, Figgins for his part “accompanied the expedition as collector and taxidermist, and his energy and hard work were successful in preserving over 200 birds and nearly 100 eggs, besides numerous other specimens” (Anonymous 1897).
After the Peary expedition, Figgins joined the American to prepare a series of exhibits about Greenland and its native peoples, of whom he had made a series of life casts. In 1902 Figgins became head of the American Museum’s Department of Preparation and Exhibition and began the construction of large habitat groups with painted backgrounds. In addition to his duties creating exhibits, from 1897 to 1902 he conducted field studies in Florida, Nova Scotia, Alaska, Massachusetts, and Washington.

In 1910 the Trustees decided that the Museum needed a full-time director. From 1900–1907, John T. Mason had been serving in this role pro bono, but new paid leadership was needed. Frank M. Taylor, Board treasurer, was authorized to search for the director. He sought assistance from colleagues at the American Museum. Jesse D. Figgins was recommended, and so at the age of 42, Figgins was hired as the first formal director of the Colorado Museum of Natural History (Fig. 1.11). His skills as an administrator and exhibit preparator, and his professional connections were the chief reasons for the offer (Fig. 1.12). Figgins would come to have a profound influence on the young Museum, establishing it as an important local and national institution.

In his tenure at the Museum, Figgins would launch its core exhibit spaces and its enduring commitment to engaging the general public in science and the natural world. Figgins was an innovator. He created the Museum’s first publication series, erected new buildings, established school programs and the Museum’s first classroom, offered staff lectures and tours, greatly expanded the collections, and was the first scientist in the Museum to document fieldwork with a movie camera. Although Figgins was a respected naturalist and museum executive, he would become most well-known for his contribution to the understanding of the New World’s ancient human history because of the discovery of the Folsom point in 1927. As Hannah Marie Wormington, the Museum’s first curator of archaeology, wrote, because of his recognition of the importance of the early archaeological find and his “unremitting efforts to have this site properly authenticated ... the chronological horizon for man in North America was pushed back many centuries.” Wormington concluded, without hyperbole, that “without Mr. Figgins, knowledge of the antiquity of man in America might not have come for many years” (Wormington 1946: 75–76).
Museum on the Rise

Figgins, of course, did not accomplish this work alone. By the time the first shots of World War I were fired, he had increased the Museum's paid staff to 23 people (Fig. 1.13).

One key person behind the design and construction of the habitat groups was Robert J. Niedrach (Fig. 1.14). Hired in 1913 as a bird taxidermist, he supervised construction of the diorama foregrounds, participated in fieldwork, shot still and motion picture film, and coauthored *Birds of Colorado* (1965) before his retirement in 1970. Niedrach's coauthor was Alfred M. Bailey, the Museum's director from 1936 to 1969, who was originally hired in 1921 to undertake fieldwork in Alaska. In his role as curator of birds and mammals, Bailey and naturalist Russell W. Hendee lived for 15 months in the Arctic, collecting specimens ranging from polar bear to caribou. Bailey stayed with the Museum as a curator until 1926, when Wilfred Osgood of Chicago's Field Museum hired him away to carry out fieldwork in Ethiopia. Frederick C. Lincoln helped conduct the Museum's ornithological survey of Colorado and went on to become assistant director of the U.S. Fish and Wildlife Service. By 1938 the Museum's bird collection numbered more than 18,000 specimens.

Frederic Walter "Walt" Miller was hired in 1921 as a small mammal taxidermist and was later promoted to curator of biology and mammals. He conducted fieldwork in South America in 1925–1926 and 1928 (Fig. 1.15). Miller married Figgins's daughter Barbara and went on in 1935 to become the first director of the Dallas Museum of Natural History.

Figgins had help on other fronts as well. Luman J. and L. Ray Hersey were entomologists who collected locally. Museum trustee William C. Bradbury entered retirement and took up the hobby of collecting bird eggs and nests (Fig. 1.16). He did fieldwork with Niedrach and Bailey—in fact, Bradbury provided the car. In 1916 he purchased the Museum's first *Aepyornis* egg (an elephant bird egg from a large, extinct flightless bird of Madagascar) for $1,000; it was the first *Aepyornis* egg specimen to reach America. In 1913
Philip Reinheimer joined the Museum as a “stationary fireman” to stoke coal in the furnace. Because extra help was needed with the growing paleontology collections, Figgins trained Reinheimer to chip fossils from matrix. Reinheimer became the chief preparator of fossils (Fig. 1.17). Having worked in Pittsburgh with Carnegie Steel, he developed a method for mounting large dinosaur and mammal fossils using welded and specially cast steel mounts.

After just his first year on the job, Figgins had balanced the budget and established the foundation for a comprehensive program of fieldwork, education, exhibition, and publication. In 1912 the Museum’s annual attendance soared to over 105,000—equal to almost half of Denver’s population. During the Figgins administration, the Museum was literally built up with new additions: more than 60,000 square feet was added with the Standley wing on the north in 1918 and the James wing on the south in 1928. Significantly, with the space provided by these additions, the subject areas for the exhibits were extended beyond Colorado’s borders to such places as Florida, South Carolina, Louisiana, Alaska, the Bahamas, and South America. Although he had many administrative duties, Figgins was in every sense a hands-on leader. As Museum trustee Charles H. Hanington recounted, “Besides personally painting the backgrounds that are employed in the Museum’s habitat groups, Mr. Figgins retains a keen interest in every item of preparation.”

In the fall of 1917 the Trustees passed a resolution to thank Mrs. Ellen M. Standley, who had “most generously and munificently offered to provide and pay for the erection of the north wing extension of the museum.
building” in memory of her husband, Joseph M. Standley, who had helped operate the Hidden Treasure Mine in Central City, Colorado (Hanington 1938: 23). In 1922, upon her death, Mrs. Standley left the Museum another $240,000 (more than $3.3 million in 2013 dollars) for the general good of the Museum. The new wing cost $66,000 and was formally opened in 1919 (Fig. 1.18); it was outfitted with electric lighting, vacuum cleaning tubes, and steam pipes and radiators, all of which were considered to be “splendidly adapted for exhibition purposes.”

However, a new boiler plant, at a cost of some $10,000, had to be constructed because the original boiler could not keep up with the addition of the new space. The new boiler was located outside the main building as a precaution.

The exhibits in the new building included fossils and prehistoric animal reconstructions on the first floor (often referred to as the basement), the North American Mammal Hall on the second floor, and North American (non-Colorado) birds and the John T. Mason collection of butterflies and moths on the third floor. Also included on the main floor were an office and lab space for the Department of Geology and Mineralogy. In 1926 the Museum’s woodworking shop was “reconditioned because of excessive vibration” that caused objects in the Art Gallery to walk off their shelves, “and new tools with individual motors were installed” (Hanington 1938: 23).

Soon after the Standley wing opened, the Board of Trustees received the commitment of a substantial financial gift from Harry C. James (Fig. 1.19) and his sister Elsie James Lemen. They wanted to build a new wing that complemented the Standley addition to honor their father, William H. James, one of the Museum’s incorporators. A pioneer settler, James made his fortune through mining in Colorado’s Central City, Georgetown, and Leadville areas. The James wing finally broke ground in 1927 and was completed the next year (Fig 1.20).

Figgins was willing to try some wild experiments with exhibit spaces. In 1912 he placed live fish on exhibit; however, they were high maintenance, so live animals were left to the Denver Zoo, a stone’s throw across City Park. More successful efforts included construction of the Nebraska mammoth display (1932), the installation of large Colorado mammal habitat groups (1933), and the exhibit of *Anatosaurus*, now known as *Edmontosaurus*, completed in 1936. Figgins and his staff also regularly exchanged materials with museums around the country in order to acquire exhibit-worthy materials for Denver and share the Museum’s collections. In 1929 the State Historical
and Natural History Society of Colorado transferred most of its natural history materials and related books to the Museum. In 1935 the Museum received, in exchange for bison and rhino specimens, a Diplodocus skeleton from the Carnegie Museum of Natural History. The bones arrived at the Museum still surrounded by their rock matrix from the Jurassic strata of Dinosaur National Monument, Utah. Philip Reinheimer, along with other staff members and Works Progress Administration workers, prepared and articulated the 75-foot-long skeleton over two years.

In 1932, the Museum’s art collection was returned to its lenders with remaining items transferred to the Denver Art Museum downtown. In 1930 a nature-related artwork, the iconic The Grizzly’s Last Stand, a bronze statue of a grizzly bear protecting her cubs by Louis Paul Jonas, was placed prominently in front of the Museum thanks to the generosity of Museum trustee John A. McGuire (Fig. 1.21).

In addition to his focus on exhibits, Figgins oversaw the implementation of numerous educational programs. Many of these methods, developed nearly a century ago, continue to be the hallmark of the Museum’s outreach efforts today. There were special tours for children, and loan kits of objects were sent out to schools starting in the 1910s. There were lecture programs by Museum staff, and movie photography was introduced in 1918 to document the Museum’s fieldwork. There was the development of a library of books, a library of film, and an “education series,” a collection of specimens for students to access and handle. Figgins established the Museum’s publication series (the Proceedings) in 1915 (Fig. 1.22), and by 1920 he had begun to produce an illustrated catalog of the Museum’s exhibits, which was sold to the public. In 1929 the Museum created space in the building for a classroom for schoolchildren, and it redoubled its efforts to work with the Denver Public School district by formally establishing the Museum School Service.

A Time for Discoveries

Under Figgins, the Museum’s collections greatly expanded. Figgins added paleontology as a priority to the Museum’s research, collecting, and exhibits work, and eventually, though somewhat unintentionally, laid the groundwork for the addition of archaeology.
Fossils of invertebrates were in the collections as early as 1908, but large fossil vertebrates were not acquired until years later. In 1915 the Museum undertook its first excavation of fossils. A Museum team traveled to Florissant, Colorado, to investigate deposits containing fossil fish, insects, and leaves; more than 800 specimens were collected and returned with the team to the Museum. Later that year, a man named Dall DeWeese told the Museum about an important find near Cañon City, Colorado, and the next year excavators recovered a partial Diplodocus skeleton. The skull was missing but the find was deemed “of exceptional importance because of the character of its preservation, its rarity in Colorado, and the fact that an equal amount of such a skeleton is seldom found intact” (Fig. 1.23).7

About this time, Museum scientists also came in contact with Harold Cook and his father, James H. Cook, regarding a fossil quarry near Agate Springs, Nebraska, where the Museum would undertake numerous excavations. Harold himself was a paleontologist and geologist, and would later become the Museum’s honorary curator of paleontology (1925–1927) and curator of paleontology (1928–1930). The Museum also sent a team to the Hat Creek Valley of Nebraska and Wyoming. The expedition resulted in the excavation of turtles and part of the skeleton of a Titanotherium (a large American Eocene mammal related to the rhinoceros), among other specimens. This considerable progress led to the formal establishment of the Department of Paleontology in 1916.

Beginning in 1919, the Museum sent staff to a fossil quarry in Weld County, Colorado, where they ultimately found many valuable fossil mammals, including more Titanotherium as well as Archaebatherium (giant piglike animal) and Trigonias (an extinct genus of rhinoceros). Although the Museum kept some of these finds for its own collections, curators soon realized the value of the quarry as a rich source of exchange material. Over the next two decades exchanges with some of the country’s most important museums would broaden the Museum’s paleontological collections and provide it with some of its best fossil specimens (for example, specimens from the La Brea Tar Pits in Los Angeles).

The Museum also worked to expand its zoological collecting during this busy period. Once the construction began on the Standley wing in 1917, Figgins had the opportunity to expand the Museum’s intellectual breadth by focusing on habitat groups outside of Colorado. As Figgins justified it, “To
continue purely local exhibits for an indefinite time would not only exhaust the field, but would reduce their interest and importance in direct ratio—a condition that would be fatal to the primary objects and purposes of the museum. The new wing offers the space for growth and broadening of activities to include all of North America—the step necessary for the Colorado Museum of Natural History in order to retain the high place it occupies in the museum world.”

Figgins led fieldwork in South Carolina to create the Atlantic shorebird group and in Florida to create the heron rookery group.

To further build up the Standley wing, in 1918 Museum trustee Harry C. James took his son William H. James, John A. McGuire (founder of Outdoor Life magazine), and Museum taxidermist Albert C. Rogers to Alaska and the Yukon to collect animals. They obtained specimens of moose, Dall’s sheep, caribou, and goats for the Museum’s new North American Mammal Hall, but were disappointed not to have acquired groups of black and grizzly bears and a moose calf. Following on the heels of this earlier effort, in 1921–1922 Alfred M. Bailey and Russell Hendee went to Alaska for more collecting. The specimens from this fieldwork were used for exchange with other institutions and to create the Alaska dioramas that are still on view today in the Museum. Still more collecting for habitat groups was undertaken: in the Bahamas (1923), Canada’s Bonaventure Island (1924), South America (1925–1926, 1928), and Central America (1935), although Figgins was strongly opposed to the Central America trip, and this seems to have factored into his resignation.

However, long before he resigned, Figgins would serve as a central figure in one of the Museum’s most important scientific discoveries to date. In 1924 Figgins hired H. D. Boyes, a local rancher, to salvage ancient bison bones eroding out of a bank along Lone Wolf Creek in Texas. After the bones had been placed in casts and were being prepared for transport to the Museum, three projectile points were found. This tantalizing find was significant because it had the potential to answer the debate about whether early humans had arrived in the Americas several thousand years ago or earlier, at the end of the last Ice Age. Figgins asked Harold Cook to investigate; he found more late Pleistocene fauna and made a stratigraphic map of the site. This find was not accepted by the scientific community, largely because it was not made by a professional researcher and because the points were not documented in context.

Two years later Figgins was told about another ancient bison site, this one near Folsom, New Mexico (Fig. 1.24). Following preliminary excavations, a stone point was unearthed, but once again it was not left in place. During the next field season, in August 1927, with strict orders from Figgins to dig carefully and leave discoveries in place, collectors finally found a spear point in situ between the ribs of an extinct bison species. The discovery was confirmed by a string of prominent archaeologists from the American Museum of Natural
History, Smithsonian Institution, and Carnegie Institution of Washington. The visiting scientists concurred that the bones and stone tools were contemporaneous. This revolutionary discovery conclusively demonstrated that early man had lived in North America for at least 10,000 years. In 2000 Discovering Archaeology magazine named Folsom as one of the 20th century’s 10 greatest archaeological discoveries.

In 1932 Figgins had an opportunity to continue his archaeological work with another major find. In Weld County, Colorado, at a site discovered by Frank Garner, Father Conrad Bilgery and students of Regis College in Denver unearthed mammoth bones and spear points. Bilgery generously turned over the excavations at the Dent Site, as it was called, to Figgins, whose research was funded by U.S. Senator Lawrence C. Phipps. In the summer of 1933, a Museum archaeologist named B. F. Howarter found the first point in situ. Figgins, Bilgery, Robert J. Niedrach, and F. Walter Miller hurried to the site and took still and moving pictures of the artifact as it was exposed. Sure proof of authenticity! The Dent Site was older than the Folsom Site by about 2,000 years and involved a new kind of spear point. However, since Figgins did not publish this find in a major journal, it was soon upstaged by work on a similar mammoth site near Clovis, New Mexico.

Riding high on these discoveries, in January 1935 Figgins was sent human remains found eight miles east of Folsom, reportedly 13 feet deep along a riverbank. Unlike his more rigorous approach, now Figgins simply compared the skull’s morphology with Paleolithic examples from Europe. He pronounced the remains a new human species, dubbed Homo novusmundus (Fig. 1.25). His claim was met with disdain, and years later the remains were found to be only about 3,000 years old, and all ancient human remains in North America are considered to this day to be of the same species: Homo sapiens sapiens.

Despite the poor decisions surrounding Homo novusmundus, Figgins made a better choice that year in hiring a young woman freshly minted from the University of Denver, H. Marie Wormington. She would serve the Museum for 33 years, make important discoveries of her own, and become
an internationally recognized scientist. The Department of Archaeology, which Wormington headed, was formed in 1936.

Another area of expanding scientific scope for the Museum during this period was the development of a meteorite collection. In 1923 the Museum became the repository for the Colorado Scientific Society’s collection, which included 22 meteorites. The next year, nine specimens joined the meteorite collection thanks to an exchange with the U.S. National Museum. Also in 1924, the Museum began to try to recover meteorites from reported falls, one in Weld County and another in the western part of Colorado. To oversee and increase this collection, Figgins hired Harvey H. Nininger (Fig. 1.26). Today considered by many to be the father of modern meteoritics, he was often introduced in his own time as the man who had found more meteorites than any other man in history. In 1930 Nininger, then 43 years old, left his job as a teacher at McPherson College in Kansas to become the Museum’s curator for the Division of Meteorites, a position no other museum had yet created.

Nininger added to the Museum’s collections with purchases (often with money obtained by selling parts of some specimens), donations, exchanges, and field collecting. He also added to his personal collection while collecting for the Museum. Nininger spent a lot of time giving presentations in rural areas, where residents kept their eyes on the ground and helped him locate new specimens. In 1933 he acquired the Museum’s single largest meteorite piece, weighing more than 1,400 pounds. Focused collecting, including through excavation, allowed the Museum to boast in 1937, “The combined collections [Museum and Nininger] exhibited in the museum now include representatives of 435 of the approximately 1100 meteorite falls which are exhibited in the museums of the world.” Of the 180 falls discovered in North America between 1930 and 1940, 130 were discovered by Nininger. Unfortunately, despite Nininger’s success, the onset of World War II in 1942 put a halt to his work for the Museum, and in 1946 he moved his personal collection from the Museum to the rim of the Canyon Diablo meteor crater near Winslow, Arizona, where he started the American Meteorite Museum.

“A Museum of International Rank”

In 1935 a disagreement between Figgins and the Museum Board led to a full rupture. The dispute reportedly centered on an expedition to Central America. However, the story is not fully documented and for reasons remaining unclear, at the beginning of 1934, the Board placed its president, Charles H. Hanington, in a newly created paid position of business manager in charge of day-to-day operations. On November 21, 1935, Figgins resigned “saying he was dissatisfied with the present methods of carrying on the
work of the Museum.”11 His resignation was accepted by the Board at a special meeting called five days later. The Denver Post publicized the loss: “Dr. Figgins during his quarter century as head of the museum has built the institution up from a modest collection of stuffed animals and birds in ancient display cases to a museum of international rank. While its collection of birds and animals of both North and South America is among the finest in the country, its specimens of ancient animal fossils, collected in Colorado and the west, is world famous.”12 Since the 1912 attendance count in the early days of the Figgins administration, the Museum’s attendance had more than doubled to 241,000 annual visitors.

After Figgins departed from Denver, he went to assist his son-in-law F. Walter Miller, former Museum curator and new director of the Dallas Museum of Natural History. Before Figgins left Denver, he had been assisting Isaac W. Bernheim, founder of the Bernheim Foundation, with developing a new museum in Kentucky. After a stint in Dallas, Figgins went to Kentucky to help Bernheim. But the Depression and the beginning of World War II brought an end to those plans. Figgins’s last position was with the University of Kentucky. He died in the Bluegrass State in 1944; his ashes were spread in the Kentucky hills.

The Bailey Years, 1936−1970

The Museum’s future director of more than three decades chose his life’s work at a young age. Born on February 18, 1894, in Iowa City, Iowa, Alfred M. Bailey came from the town that then had one of the country’s leading museum training courses, at the University of Iowa.13 A story, perhaps apocryphal, goes that a professor and taxidermist at the University of Iowa Museum, Homer R. Dill, once saw a nine-year-old Al Bailey coming from the Iowa River, hauling behind him an enormous carp.14

“What are you going to do with that fish?” the professor asked.

“Stuff it,” Bailey, the aspiring taxidermist, replied simply.

Although his role at the Denver Museum would lie many years ahead, Bailey (Fig. 1.27) was among the institution’s first visitors. Bailey visited the Museum in 1908, when it first opened its doors to the public, taking a “nickel tour” from Iowa on a “huge bus.”15

While still in high school Bailey focused on his taxidermy skills, and when he was just 18 years old, Bailey, with Dill’s help, secured a place as camp cook on the U.S. Biological Survey’s 1912–1913 expedition to Laysan Island, Hawaii, to rid the island of invasive rabbits (Fig. 1.28). One newspaper gushed, “Appointment as a member of the party was a great honor and speaks well for the skill of Mr. Bailey, who has come to be recognized all over the country as a taxidermist of the first order.”16 Bailey entered the University of Iowa and concentrated his energy on studying under Dill. He collected birds for the
university’s museum, some of which were later donated to the Denver Museum and included in its dioramas. Bailey graduated with a bachelor’s degree in 1916.

After graduation Bailey was hired as curator of birds and mammals at the Louisiana State Museum in New Orleans to start a natural history collection. While in Louisiana, “Bailey visited the islands of the Gulf of Mexico and began trading sea bird specimens with J. D. Figgins, director at that time of the Colorado Museum of Natural History. It was his first professional contact with Denver.”

Figgins was clearly impressed with Bailey. In 1919 Figgins offered Bailey the position of curator of birds and mammals, but Bailey was also tendered the opportunity to become the first representative of the U.S. Fish and Wildlife Service in Alaska, to be based in Juneau. Bailey accepted the challenge in Alaska.

Just two years later, in 1921, Figgins was able to hire Bailey to head the Museum’s Alaska expedition (Fig. 1.29). Over 15 months Bailey collected specimens for the Museum’s planned habitat groups. One highlight of this work was a 750-mile trip by dogsled from Wainwright down the coast to Cape Prince of Wales on the Bering Strait to collect walruses. During the journey the temperature “hovered around 25 below for most of the 25-day trip, with a strong wind blowing in the faces of Bailey and his companion, an Eskimo named Upiksom.”

Bailey’s reputation as a field man was advanced further during an expedition to the Ethiopian empire of Abyssinia. Led by the Field Museum, the 1926–1927 expedition focused on collecting specimens and taking photographs. During the trip Bailey traveled 2,000 miles by mule. He also learned to use a movie camera, a gift from a Chicago philanthropist. Years later Bailey recalled some of the trip’s adventures. Once, a leopard leapt out of the bush at Bailey, but Bailey shot him with just inches to spare. Another time, Bailey remembered, “We wanted to collect a specimen of the Abyssinian ibex, a form of antelope. They live on high cliffs. We were out on a narrow trail with the cliff above us, and a 2,000-foot drop below. I was in the lead with a gun-bearer following when I spotted the ibex I wanted on the
cliff above. I got the gun and shot, and the ibex plunged down. He missed me by about two feet and went on down the cliff. I came that close to going to eternity with him.”

After this expedition Bailey became director of the Chicago Academy of Sciences. Nearly a decade of experience there left Bailey ready for a new challenge. As Figgins exited the Museum’s doors, the opportunity for Bailey arrived. In May 1936, at the age of 41, Bailey became the director of the Colorado Museum of Natural History. He would become the Museum’s longest-serving director to date.

During his tenure Bailey headed the renovation of the habitat groups into curved and domed diorama shells with internal electric lighting. He oversaw four major building additions (five if you count the 1968 northwest and southwest wings separately). He oversaw significant international expeditions to many corners of the globe, including Australia, New Zealand, Labrador, the Galápagos Islands, and Botswana. He published impressive works of science, such as *Birds of Colorado* (1965), coauthored with Robert J. Niedrach. Over his lifetime Bailey received many honors, but among the most prestigious were honorary doctorates from Norwich University and the University of Denver, the Malcolm Glenn Wyer Award for distinguished service in the field of adult education (1961), and the Regis College Civis Princeps award (1967). In 1971 the Alfred M. Bailey Bird Nesting Area, a special management area for birds, was dedicated in Arapaho National Forest (today named White River National Forest). And various parts of the Museum have been named for him, most recently, in 2003, the Museum’s library and archives, in recognition of his efforts to expand the Museum’s publications program and his contributions to these special collections.

After 33 years of service to the Museum, Bailey retired in 1969 at the age of 75. He died on February 25, 1978. Bailey was remembered for his dedication to museums generally, his transformation of the Denver Museum in particular, and his passion for fieldwork and for birds. As one obituarist reminisced, “His credo was that fieldwork is the lifeblood of natural history museums, and he himself was a leading field man. He traveled over much of the world. He was one of the early popularizers of ornithology in *Natural History*, *American Forests*, sporting journals, *National Geographic*, and others, and devoted much of his time in the field to making pictures and films of excellent quality, besides keeping a daily journal. He lectured widely each year … The Denver Museum of Natural History was modernized and its halls, exhibits, and study collections greatly expanded under his direction” (Phillips 1981: 173–175). Bailey’s legacy to the Museum was ensuring that it secured its place in the Denver community and gained a national reputation for quality exhibits and important research, placing it among the top natural history museums in the country.
Building Buildings

One of Bailey’s chief accomplishments was his expansion of the Museum’s footprint. His first building project was also arguably his most significant. Dedicated on January 11, 1940, Phipps Auditorium was completed at a cost of approximately $250,000 (more than $4 million in 2013 dollars) with a Public Works Administration grant and a donation from Senator Lawrence C. Phipps and his wife, Margaret Rogers Phipps (Figs. 1.30, 1.31).

Previously, lectures were presented in the old Art Gallery and the exhibit halls. Phipps Auditorium could seat nearly 1,000 guests and offered a stage large enough to accommodate a 70-piece orchestra. It became home for an extremely popular Saturday-morning lecture program for school-aged children (Fig. 1.32). The basement housed laboratories, photographic darkrooms, and collections storage. The auditorium was equipped to present 16mm and 35mm films, with sound. Administrators took advantage of this capacity to create the Museum’s first membership program, an exclusive film-lecture series. Lectures consisted of presentations by staff, including Niedrach and Bailey, and other nationally known speakers who could show their films on a large screen. In 1983, when the auditorium was remade into an IMAX movie theater, the film-lecture series moved to South High School, where it continued until 1995. Phipps Auditorium not only provided a successful venue for Museum programs but also created a revenue stream through space rentals to other organizations.

In 1949 the Museum completed a less glamorous but just as necessary construction project with an infill at the back of the 1908 wing. This work, constructed at a cost of $52,000, created new laboratory and taxidermy space, modern restrooms, a new office for Bailey, meeting rooms, and space for the library. The third floor also became the Museum’s first temporary exhibits gallery (today this is the Naturalist’s Nook), a relatively small hall but one that established a means for the Museum to present new exhibits throughout the year.

The third major building addition was completed under Bailey in 1953. Dreamed of since 1939, the west wing began to change the Museum’s outward appearance; this new visual mode was often described as “modern” (Fig. 1.33). The first tangible step toward expanding the building was

Figure 1.30. Senator Lawrence C. Phipps wielding a shovel at the Phipps Auditorium groundbreaking, 1938.

Figure 1.31. Phipps Auditorium opened in 1940, boasting the very latest in projection and sound equipment.
a bond election in 1947, which approved $350,000 for construction. However, steel and copper were difficult to acquire after World War II, and by the time materials were available and government approvals for construction were acquired, costs of construction had skyrocketed. The Museum cut back on some items that could be added later but still needed to raise an additional $185,000. Unfortunately, in 1951 Denver voters did not approve another bond election. Instead, the Boettcher Foundation gave $100,000; the Carl A. Norgren Foundation paid to furnish the scenic lounge; the Lawrence C. Phipps Foundation donated $30,000; the City of Denver’s administration gave $25,000 to construct exhibit cases and finish floors and ceilings; and Edwin S. Kassler Sr. gave $10,000 to construct one of the alcoves in the Hall of Man. The wing’s total construction cost was $537,973.

The west wing provided a new main ground floor entrance to the Museum and its elevator. The grand steps and portico were removed, and some of the old windows, which had been bricked in to create the diorama halls, were covered by the new addition. The wing’s first floor was used for a sales desk (at one time the sales desk was located in the old Dinosaur Hall) and the Hall of Man, a permanent archaeology exhibition space completed in 1956. The wing’s second floor housed the Pacific and Australia exhibits and a scenic lounge (named for Bailey in 1970), and the third floor presented large ecological displays of South America.

Beginning in 1954, in space freed up in the existing building by the construction of the west wing, Denver’s Botanical Gardens Foundation made the Museum its headquarters with its own special entrance on the south side of the building. In turn, landscape architects associated with the botanical gardens reshaped the landscaping surrounding the building, including the Robert E. More Pinetum to the building’s south, a box canyon to the southwest, and an extensive rose garden and lilac lane to the west (Fig. 1.34). 24

Situated in the west wing’s third floor, in 1955 the Museum opened the Planetarium, adding another field of science to the Museum’s list of academic specialties (Fig. 1.35). Erected in collaboration with the Denver
Astronomical Society, the first projector was a Spitz Model A-1, projecting onto a 20-foot metal and fabric dome. The Planetarium was set up just in time for the Christmas holidays; the first demonstrations were for the Museum trustees and invited guests to see the show *Star of Bethlehem*, which illustrated the skies over Bethlehem at the time of Jesus’s birth.\(^2^5\)

In 1958 a new plaster dome was built in the Planetarium. Predicting the odyssey of the Apollo missions just over a decade later, *A Trip to the Moon* was the first show in the refurbished theater. This program took the audience on a simulated space trip to the moon, during which the Planetarium “rocket ship” made a landing in a lunar crater. The Planetarium’s original seating capacity was 80 visitors; by the end of Bailey’s tenure as director, the annual attendance was well over 90,000.

Bailey’s last building episode would also be the Museum’s grandest, most expensive venture up until that time. By 1965 the Museum had secured $2,652,000 (more than $19.6 million in 2013 dollars) for the new additions. Major sources of funding included gifts from the Boettcher Foundation ($1 million), Gates Foundation ($250,000), and Phipps Foundation ($200,000), and also grants from the City of Denver ($800,000).\(^2^6\) These additions completed the modernization of the building’s exterior.

The new southwest wing held a bigger and better Planetarium on the first floor (now named for Museum trustee Charles C. Gates and funded by the Gates Family Foundation of Denver). Seating up to 250 visitors, this new
space was also connected to a roof-mounted 22-inch telescope for night sky viewing, with images projected on the 50-foot Planetarium dome via closed-circuit television. (Denver's increasing air and light pollution later resulted in the telescope's removal.) The second floor plans included dioramas, four connected “halls showing in orderly sequence the most extensive series of big game and small mammals of North America to be exhibited in any museum.” Finally, the top floor was planned for dioramas of the African continent. Covering more than 15,000 square feet, the Helen and Arthur E. Johnson Botswana Africa Hall was crafted to illustrate Africa's wildlife and a select few human communities (Fig. 1.36).

The new northwest wing was a second priority, as Museum administrators felt it important to first get the new Planetarium up and running. However, in 1966 initial plans were made for a Hall of the North American Indian, to be situated adjacent to the Hall of Man. This idea planted the seed that would become the Mary W. A. and Francis V. Crane American Indian Hall, completed in 1978. In the meantime, this wing would include a smaller auditorium (seating 250) for smaller presentations and for the meetings of local groups such as the Denver Field Ornithologists, among many others.
Education and Exhibits
As far back as the 1910s, Museum officials had trained Denver Public Schools (DPS) teachers in the educational use of birds and mammals from the collections. Throughout the years similar efforts had been made; however, in 1954, the Museum formalized this strategy and partnered with DPS to place teacher Robert Thibodeau in the Museum as an onsite educator. Thibodeau successfully designed novel educational programs for DPS schoolchildren using the Museum’s unique resources to teach a range of natural history subjects.

In 1968, with the new northwest wing, the Museum now had dedicated classrooms, offices, and a library for an education staff. The increase in the number of children who could be reached with these facilities, as well as the facilities’ potential use for adult programs, led to the formal creation of the Education Department in 1969. Planetarium staff members were appointed curator and assistant curator of the new department, and another staff position was added to serve the expanding audience of young people. In 1970 the Museum hosted 789 tours to 23,864 visitors—a 28 percent increase in attendance over 1969.
To reach even more people during this period, the Museum experimented with the new medium of television. In 1954 the Museum created a series of eight programs presented on Channel 2 on Saturday evenings at 6:30. In black and white, Bailey lectured on the Museum’s field expeditions in Colorado, the Pacific, Mexico, and Australia. The Museum reported the experiment a success: “If the numerous letters received by the sponsor are indicative, the programs were viewed by a surprisingly large audience.”

The Bailey era was also a time of expanding and improving the exhibits. In 1936 the Museum undertook a construction project to revamp the dioramas. Previously more akin to set pieces, the new dioramas were built with curved backgrounds and domed ceilings, realistically painted to create a more lifelike tableau. A Works Progress Administration (WPA) grant made possible the bricking in of 20 windows to eliminate natural light from the gallery that was to be converted into a diorama hall. WPA also supplied employees to work on diorama construction, such as women to produce the “accessories,” or foreground materials, which were fashioned from celluloid or wax (Fig. 1.37). In 1936 alone, WPA workers produced 56,031 leaves and 5,200 blades and flowering stalks. The glass separating the viewer and diorama was now slanted to reduce light reflection, another subtle but significant technique to create a more convincing effect. On the third floor of the 1908 building, which previously housed exhibits of birds, the first refurbished dioramas appeared. This new style of exhibition housed the Colorado life zones (still on display today as Explore Colorado). This area was dedicated in 1944 as the Walter C. Mead Ecological Hall. In 1949 the first of three trips were made in preparation for the 1953 wing that would house the Australia and South Pacific dioramas.

Between 1936 and 1940 paleontology displays also became more prominent with the mounting of skeletons of Edmontosaurus, Diplodocus, Stegosaurus, and the plesiosaur Thalassomedon. In 1942 the new Hall of Fossil Mammals made its debut. The Museum’s annual report exclaimed, with a touch of hyperbole, “The opening of the remodeled Hall of Fossil Mammals marks the culmination of a quarter of a century of achievement probably unequaled by any other museum.”

The final display in the Hall of Fossil Mammals presented “ancient American cultures” and contained Folsom points, implements from the Lindenmeier Site (an extensive Folsom culture campsite), and grinding stones, choppers, and projectile points of the Cochise Culture. This case demonstrated the Museum’s ambition to create more displays on early human culture. As early as 1944 the Museum’s postwar strategy called for the support of a donor for a building addition, which would house a Hall of Man.

It would not be until 1951 that a young woman named Arminta “Skip” Neal (Fig. 1.39) could start on the first of the 18 exhibits in a new hall, which would display the ancient cultures of the New and Old Worlds.
It was H. Marie Wormington, curator of the Department of Archaeology, who hired Neal in 1950; Neal first helped Wormington during her 1948 field season. Under Wormington’s direction, Neal designed and installed the Hall of Man. Neal’s first miniature diorama showed “a Neanderthal family of the Old Stone Age defending its cave home against a giant bear.”

The Hall of Man was dedicated in the summer of 1956. The Museum’s annual report revealed, “Among the distinguished guests was Dr. Kenneth Oakley of the British Museum, the famous discoverer of the Piltdown hoax. After a few brief speeches, the ribbon at the doorway of the Hall was cut by Edwin S. Kassler, whose generous contributions aided so greatly in the completion of the alcove named in his honor.”

Exhibit production in the Museum had long been decentralized, placed in the hands of each department under the supervision of curators.

Neal began to cross over departmental lines when she finished the Hall of Man and then was assigned the task of designing and installing interpretive displays in the dinosaur and geology halls. By 1957 she had the title of exhibit designer for archaeology, geology, and paleontology. Later, she became the curator of the Department of Graphic Design, a title she held until 1971. When the vast Crane Collection of North American Indian artifacts arrived at the Museum in 1968, Neal became the exhibits designer for that hall and felt the need to further her anthropological studies by obtaining her master’s degree from the University of Denver. Later, in 1975, she was made assistant director for exhibits planning and took over the management of diorama installations in the North American Wildlife and Botswana Africa Halls. During this period, Neal was the one person who could go from subject to subject and impose a uniform approach to exhibitry at the Museum.
The Museum’s efforts toward improving and expanding exhibits led to an attendance boom under Bailey’s tenure. After Bailey became director, attendance grew from 266,900 in 1936 to 805,005 in 1941. In 1946 the Museum’s attendance hit the one million mark, a number twice the population of the City of Denver at the time. Attendance dipped shortly thereafter but remained steady at more than 500,000 per year for many years. In 1948, the Museum changed its name to the Denver Museum of Natural History, at the request of the City and County of Denver to acknowledge the city’s ownership and maintenance of the institution.40

Collections and Research
Given Alfred M. Bailey’s research interests and his position within the Museum, ornithology and mammalogy were central areas of growth during the mid-20th century. Collecting in these areas was mainly undertaken to provide specimens for dioramas. Bailey’s goal when he arrived at the Museum was to convert all the Museum’s dioramas to the curved and domed cases. This he did, and he added new wings, which also would contain new dioramas designed to round out the presentations. Field collecting was also done to supplement the Museum’s study collections and to provide objects for trade with other museums. Notable field projects included expeditions to Canada (1946); mid-Pacific islands, Australia, and New Zealand (1949, 1952, 1954, 1957, 1958); Galápagos Islands and Ecuador (1960); Alaska and the mid-Pacific islands (1961); and Botswana (1969).

Even as director of the Museum, Bailey personally continued his fieldwork, which between 1936 and 1948 was facilitated by President of the Board Charles Hanington, who ran the Museum in Bailey’s absences. As a devoted photographer and cinematographer, Bailey made photo documentation a key part of his fieldwork, providing him with great source material for his popular lectures and scholarly engagements. Bailey’s dedication to the field led one of the Museum’s later directors, Raylene Decatur, to suggest that by comparison with today’s museum CEOs and presidents, Bailey was truly more akin to a chief curator than a director.41

Building on Figgins’s legacy, the Museum continued to build its paleontological and geological collections. Harvey Nininger advanced the Department of Meteorites until 1941, at which time, as the 1942 annual report indicates, the “curator is devoting his entire time to the war effort and is expected to do so for the duration.”42 (World War II was also used as the explanation for the suspension of the Department of Archaeology in 1942.)43 In paleontology, excavations were conducted to enhance the Museum’s collections, but other exhibit-worthy fossils were also collected and prepared that could be traded with other museums. Significant fieldwork in paleontology included the 1937 excavation of a complete *Stegosaurus* near Cañon...
City, Colorado; in geology, a 1959 expedition to Mexico focused on the collection of cave crystals.

In the year of Bailey’s arrival, 1936, the Department of Archaeology was formally established. H. Marie Wormington led the department (Fig. 1.40) and was assisted by her friend and former classmate from the University of Denver, Betty Holmes (later Betty Huscher, and later still Betty Bachman). During the department’s first year, Wormington and Holmes undertook an excavation of the Lindenmeier Site, a Folsom campsite near Fort Collins, Colorado, making clear the Museum’s continued focus on the earliest Native American cultural traditions. In 1938 Charles A. Mantz joined the Museum as the curator of Asiatic anthropology. Mantz conducted archaeological excavations in Japan; however, his work came to an unexpected end with the inception of World War II. Wormington and Holmes continued their research in Utah and Colorado into the 1940s, until Wormington left for Radcliffe College to obtain her PhD and Bailey briefly suspended the department. Wormington continued to be listed as honorary curator of archaeology in the Museum’s annual reports while she was at Radcliffe. When she returned to the Museum in 1945, her title reverted to full curator and she went on to an illustrious career.

Wormington received her PhD in 1954 and became one of the most prominent archaeologists in the United States. During her tenure at the Museum, she completed *Ancient Man in North America*, a synthetic volume that received multiple printings and revisions and inspired a whole generation of early human archaeologists in North America. In 1968, Wormington was elected the first female president of the Society of American Archaeology. The Department of Archaeology closed in July 1968 with her departure. In mid-1969 the Museum chartered the new Department of Anthropology with Susan Grant Raymond as curator, after receiving the Crane Collection of North American Indian artifacts.

**Modernization, 1970–1987**

Alfred M. Bailey was largely recognized as a successful museum director: he experimented with new outreach opportunities, drew large audiences, vastly expanded the Museum building’s footprint, and brought the world to Denver through many captivating exhibits and dioramas. With Bailey’s retirement, the Museum gradually began to grow from the roots that Bailey had planted in the Denver community; it was incrementally transformed into a more modern museum. This next period in the Museum’s history saw the formal creation of a membership program, a development department, and a volunteer organization; and the Museum was among the first to receive accreditation from the American Association of Museums. With time, the Museum’s research departments began to expand and grow as well.
The man who began this hard work—though his residence, ultimately, would be short—was Roy Earl Coy (Fig. 1.41). Born in 1915, Coy developed an interest in taxidermy while a student at Saint Joseph Junior College, located in his Missouri hometown. Coy moved on to Bailey’s alma mater, the University of Iowa, where he graduated in 1939 with a major in geology and a minor in museum methods. The next year Coy returned home and became director of the Saint Joseph Municipal Museum while also serving for several years as the WPA northwest Missouri area supervisor for public museums. Under his administration the Saint Joseph museum moved twice, greatly increasing its size beyond the few rooms it occupied when Coy first took charge; he was also acknowledged for creating quality educational programs and exhibits.

Across the plains in Denver, in 1967 Bailey was preparing himself for retirement and seeking his successor. Candidates from across the United States applied, but Coy was chosen because, Bailey said, “We are presently undertaking an expansion program and we feel that someone of Mr. Coy’s talent and experience will be needed,” referring to the new wings under construction and plans for additional dioramas and a new Planetarium. Privately, Coy apparently wavered about accepting the post, unsure if the position would be good for him, but ever since childhood vacations to Colorado he had dreamed of becoming director of the Denver Museum.

Coy came to the Museum as Bailey’s assistant director in January 1968, with the plan to become director two years later when Bailey would formally retire. One of Coy’s first tasks—and successes—was finding a collection of Native American objects to fill the Museum’s new northwest wing. Coy wrote to two friends, Francis and Mary Crane (Fig. 1.42), who operated a private museum in the Florida Keys and whom he had met several years earlier on a lecture tour. The Cranes were looking for a new home for their large and diverse collection because of a lack of visitors to their museum, and also because of Francis’s declining health. The Cranes initially considered moving their museum to Carefree, Arizona, and appointing Coy its director. However, Coy did not endorse the location and instead convinced them to donate their entire collection to the Denver Museum. The Crane Collection arrived in 1968, and Coy and Arminta “Skip” Neal were charged with planning the Museum’s newest permanent gallery. Coy felt comfortable with this task because at the Saint Joseph Municipal Museum he had worked with a collection of Native American objects, and he was eager to pursue the Crane Collection because, he acknowledged, “Indian artifacts are pretty hard to acquire these days.” Indeed, the Crane Collection is among the largest private collections ever donated to a public U.S. museum.

During his time in Denver, Coy built up other collections and exhibits. In 1969 Coy led the Museum’s four-month-long collecting expedition in preparation for the Botswana Africa Hall. He also was able to convince his
friend Fred Rosenstock, who owned an antiquarian book shop on East Colfax Avenue in Denver, to donate Captain William Clark’s telescope (which was used during the celebrated Lewis and Clark expedition of 1804–1806), dueling pistols, powder flask, and the 1837 codicil of his will.

As planned, in December 1969 Bailey retired and Coy became the Museum’s next director. In 1971, the Museum was hosting the U.S. premiere of a much-touted Planetarium show called *The Beginning and the End of the World*. The media, international dignitaries, Museum trustees, and other notables attended. The show was an early computer-driven prototype, and just as it was to begin, it malfunctioned. Coy grew angry and ordered security to clear the Planetarium. He then fired at least three employees on the spot and cancelled the show’s planned three-month run resulting in adverse publicity for the Museum. In October 1971, after an investigation by the Museum Trustees, Coy was asked to resign and staff who had been fired by Coy were later rehired. Fortunately, Coy recovered from this stumble and went on to a profitable career as a lecturer and museum director in local Missouri museums.

**IMAX and Completing the Habitat Dioramas**

With Coy’s departure, the Museum experienced a period in which the Board of Trustees had a strong hand in the organization’s development. This was perhaps epitomized by Allan Rogers Phipps. Born in 1912, he was the son of Senator Lawrence C. Phipps, himself a long-serving Museum Trustee, from 1913 to 1958. Allan Phipps was successful in his own right, having obtained a degree in jurisprudence from Oxford University in 1936 and a law degree from the University of Denver in 1937. Among many other credits, he, with his brother Gerald H. Phipps, purchased the organization that owned the Denver Broncos football team and the Denver Bears baseball team in 1965.

Phipps (Fig. 1.43) believed in giving back to his community. He served on the boards of many local cultural, conservation, health, service, and financial organizations. During his lifetime he was the longest-serving board member of the University of Denver (45 years). But he would serve even longer on the Denver Museum’s Board (54 years). He had become the Board’s president in 1971. When Coy suddenly left the Museum, Phipps stepped in as acting director, a position he would hold for three years. Phipps was well-liked by both staff members and Trustees and was a steadying influence on the Museum during an unsettling time. Even after he stepped down as acting director, Phipps continued to wield power, remaining on as Board president until 1982. He was a driving force behind the Museum’s creation of the IMAX Theater. Over the years Phipps provided generous financial gifts as well as donations of specimens. He finally retired from the Board in 1996, though he...
remained an honorary lifetime trustee until his death in the fall of 1997.

In 1974 Charles T. Crockett (Fig. 1.44) replaced Phipps as acting director. After gaining the confidence of the Board, Crockett was named director in 1976, a position he would hold for a decade. Promoted from within, Crockett had been a curator in the Department of Paleontology (1969–1970) and the Department of Conchology (1970). As was the norm for the Museum’s curators during this time, Crockett held a bachelor’s degree, from the University of Colorado. When the transition of the directorship from Bailey to Coy began, Crockett was appointed assistant to the director (1970) and then assistant director (1971). Under Phipps, Crockett continued as assistant director until he finally took the Museum’s reins himself. The Phipps-Crockett era saw a greater emphasis on policy development and modernization of the facility.

In 1972 the Museum launched the National Association of the Denver Museum of Natural History, and a Members Council was formed that focused on both promoting membership and running a volunteer program. Some 600 members joined in the first year. Although volunteers had always been central to the Museum’s day-to-day operations, helping with a variety of duties and supervised by the staff of the department in which they worked, this was the first formal effort to organize this corps. The membership and volunteer organizations were eventually absorbed into the Department of Community Services.
in 1978, though they were later separated again into distinct programs. Also in 1972 Museum administrators issued the first personnel, security, and auditorium policy manuals. These policy documents likely helped the Museum to gain accreditation by the American Association of Museums that year, making it among the first institutions to obtain this mark of distinction.

During this period the Museum also began to focus more on community relations and public perception, a move likely fed by a noticeably declining attendance. The first public relations staff person, Henrietta Perry, was hired to form the Department of Public Affairs in 1972, renamed the next year as the Department of Public Relations. In 1973 Arminta Neal proposed establishing the Native American Advisory Council (later renamed the Native American Resource Group) to advise on the care of the Crane Collection and development of exhibits for the Crane American Indian Hall. Phipps strongly supported the proposal, and the council was quickly founded.

The Museum’s efforts to standardize policies and practices continued swiftly in 1974. Crockett appointed a committee, headed by two curators, Betsy Webb (Zoology) and Jack Murphy (Geology), to write the first collections policy. Even payroll entered the modern age as the Museum’s first computerized system was installed. And, several years later, the Museum’s phone system was updated when the antiquated switchboard was retired and switched to the City Centrex system. Phipps and Crockett also took a hard look at the Museum’s aging building and produced a facility master plan, followed by a feasibility study. These reports resulted in steps that needed to be taken before any new building additions could be completed, such as bringing the 1908–1928 wings up to fire code, building a new heating and cooling plant and transformer vault, constructing a penthouse for air movement equipment, and purchasing an emergency power generator. Museum administrators followed up the facility plan with an interior traffic flow study and a survey to determine departmental space requirements.

Phipps and Crockett had the ambition for more additions, but this of course would require more financial resources. Phipps expressed concern over the “Museum’s ability to remain financially self-supporting.” Phipps saw the need for repairing older parts of the building while continuing to expand the facility, but at the same time anticipated shrinking City support. As early as 1971, murmurs arose over the potential need to charge an admission fee. Small steps were taken, such as installing the still-popular saber-toothed cat donation box in 1973 (Fig. 1.45) in which visitors dropped their loose change. In 1975 Phipps called for a planned fundraising drive, a need made more immediate the next year when the City of Denver did begin reducing funding over several years by 22 percent. In response the Museum hired Carole Hayward as fundraising coordinator (the position was soon assimilated into the newly formed Development Department), and began the Museum’s first capital campaign, which was successfully completed six years later.
Phipps held out hope that voluntary contributions from visitors—like at the American Museum of Natural History—would plug the financial hole. He long opposed a mandatory entrance fee, feeling it would cut down on visitation and leave some audiences out. However, by the new decade it was clear that such an approach was necessary for the Museum’s financial well-being. In 1981 the Old World Cultures Hall was demolished to make way for an admissions ticket desk. As the Museum’s annual report explained, the appearance of this desk marked the end of an unbroken eighty-year span during which the building was open to the public without charge, except for auditorium and planetarium shows. An admissions fee policy was literally forced on the Museum by the City of Denver’s drastic cut in its appropriations for 1982 operations. This in turn was preceded by refusal of the Colorado General Assembly in its 1981 session, to continue a policy of expense sharing with Denver, in aid of the Museum and three other cultural agencies within the City—the Zoo, Art Museum, and Botanic Gardens.

Despite the state government’s unwillingness to fund the Museum, in 1982 Denver voters approved a $20 million bond improvement project. This funding source finally addressed many of the issues raised in the 1974 facility master plan and financed the new northeast and southeast wings. The bond project also created new work and lab spaces, exhibit areas, and a north entry to the Museum. A planned collections storage facility, however,
did not materialize. The large open galleries within the new wings were an important focus for the Board members, as their priority was to find a means of enticing visitors back repeatedly, especially after the admissions fee was imposed in 1982. Although not explicitly envisioned at the time, the large changing exhibit space created through the bond financing, and named the Allan R. Phipps Changing Exhibits Gallery, laid the groundwork for the “blockbuster” exhibitions that would soon come to define the Museum.

In addition to the focus on finances, buildings, and community relations, the Museum continued to nurture its traditional programs. In 1983 the Collections and Research Division was formally established amid a general staff reorganization; Curator of Anthropology Joyce Herold was appointed as the first chief curator (Fig. 1.46). This new division focused on centralizing the acquisition and management of collections to support the Museum’s research, exhibition, and education initiatives. During this period, the first major permanent exhibition to be completed was North American Indian Cultures in Crane Hall in 1978 (Fig. 1.47). It was supported by a number of innovative temporary exhibitions and outreach...
programs such as *Moccasins on Pavement*, which addressed the urban Indian experience. In Crane Hall’s Lifeways Gallery, funded by the Assistance League of Denver, staff mounted small changing exhibits through the 1980s. Diorama halls that started under the Bailey administration opened: the Helen K. and Arthur E. Johnson Botswana Africa Hall in 1981 and the North American Wildlife Hall in 1982.

The Planetarium was modernized during the ’80s, but a larger alteration was the remodeling of Phipps Auditorium into a giant-screen IMAX theater, the first in Colorado. Funding came from charitable foundations and corporations; Allan Phipps contributed heavily. The new theater opened on July 1, 1983 (Fig. 1.48), 75 years to the day after the Museum’s opening to the public on July 1, 1908. In the years since, this theater has been a major draw for educational films on the natural world and a steady source of financial income.

Upgrading the Planetarium and Phipps Auditorium precipitated discussion within the Board and the administration about how to formally include science and technology in the Museum’s activities. The Board entertained, but at the time did not act upon, the idea that perhaps a name change and a new logo would better represent a museum looking toward the future. The administration and Trustees did continue to expand the range of disciplines when health sciences became another core science competency for the Museum. Administrators agreed, in an effort led by Max T. Morton and Fran Corsello, to make the Museum the new home for *Hall of Life*, an exhibition originally located downtown and devoted to teaching the public about healthy choices. *Hall of Life* officially relocated to the Museum in 1987, and staff initiated plans for its new exhibits.

The Trustees and administration continued facing financial challenges. In 1985, with declining City support, the Museum joined a coalition of Denver-area cultural facilities to try “to secure a broader funding base through formation of a metropolitan tax district.” The next year a bill was introduced in the state legislature; it was passed by the state senate but defeated in the House Local Affairs Committee. However, this step planted a seed that would later grow into a significant turning point in the history of cultural organizations in the Denver area.

Also in 1985, the Museum joined the City Park Task Force, formed to provide communication between City Park neighbors, the Museum, the Zoo, and many regional not-for-profit organizations. Such a move was sparked by the Museum’s construction of two large building additions and proposed expansion elsewhere in the park that had the neighbors concerned about loss of green space, the size of the Museum’s building, additional traffic and parking issues, and the legality of the project. The Museum reported, “We are actively participating in the Task Force in hopes that our mutual concerns can be solved by working together.” The Task Force began the development of the City Park master plan in 1986.
In September 1986, Crockett resigned. President of the Board Charles C. Gates Jr. conveyed “special thanks to Charles T. Crockett for his service to the Museum as Director for the past ten years, 1976–1986, and especially for his efforts and vision on the bond issue construction project.” Trustee Irving “Bud” Shwayder stepped in as acting director and served for six months. He recalled that he missed a Board meeting and upon his return learned he had been tapped to serve as acting director. Shwayder also noted that he left the brief post with “enormous enthusiasm for the future of the Museum.”

A Museum for the New Millennium, 1987–2013

John G. Welles (Fig. 1.49) took the director’s reins in March 1987 and brought along his strong background in business administration. With a bachelor’s degree in electrical engineering from Yale University, Welles went on to receive an MBA from the Wharton School at the University of Pennsylvania. He initially worked as an engineer with the General Electric Company and was a labor relations negotiator for General Motors Corporation before becoming head of the University of Denver’s Denver Research Institute, a position he held for 18 years. Just before arriving at the Museum he served as regional administrator of the six-state U.S. Environmental Protection Agency (EPA) office in Denver. During his time at the Museum’s helm, he would serve as both general chair and vice president of the American Association of Museums (AAM) and as a member of the AAM ethics commission.

The choice of Welles as director reflected a shift in museum administration across the United States as boards began selecting leaders for their administrative savvy rather than their scientific credentials. Upon announcing the selection, the Museum Board’s president, C. Neil Norgren, was explicit about this change. President Norgren said Welles was “chosen from a pool of 300 applicants despite his lack of previous museum experience.” But, he added, “In today’s world we needed a very strong administrator and financial type guy.” For his part, Welles explained, “I’ve always been interested in natural history, but I’m still learning about museums.” Welles’s administrative and business experience had prepared him for the challenges of rapid change.

Welles arrived just months before the Museum opened the new northeast and southeast wings, featuring 50-foot-high atriums, doubling the building’s size in one stroke. The main entrance and ticketing area were moved to the north side, and a new 25-foot-high cast of *Tyrannosaurus rex* began greeting guests, to their great delight, as they entered the Museum.
This expansion allowed the Museum to accommodate the exhibition that would radically alter the Museum’s sense of possibility: *Ramses II: The Great Pharaoh and His Time* (Fig. 1.50).

Announced in 1985, the exhibition opened to fanfare in October 1987 and ran through March 1988. The initial estimate for attendance was upward of 500,000 people; by the time the exhibition closed, total attendance was 908,828 visitors. A veritable Egyptomania took hold of Denver; the age of the blockbuster had begun. The Museum would seek to repeat this phenomenal success, building up its Exhibits Division to attract unprecedented numbers of visitors who would learn about natural and cultural history in exciting new ways and whose ticket sales would subsidize the Museum’s scientific and educational mission.

The success of Ramses brought about another unexpected outcome. More than 1,000 new volunteers were recruited to work in the exhibition, overseen by a paid supervisor, Dorothy Safford. The volunteer program burgeoned. After Ramses closed, Sarah Christian was hired as a dedicated Museum-wide coordinator, and positions were created throughout the building to effectively use the skills and expertise of this influx of volunteers.

To coordinate with the ongoing discussion about how to create more emphasis on science and technology, the Museum generated its first exhibition directly related to these topics, entitled *New Visions of Earth: The Technology of Reading Our Planet*. The effort represented “an experimental step toward our long-range goal of presenting scientific developments in understanding global change.” The Museum also joined the Museum Film Network, a consortium of 12 science museums devoted to producing educational and entertaining IMAX films using the latest giant-screen production technologies.

In late 1988, metro Denver voters made history when they overwhelmingy approved the Scientific and Cultural Facilities District (SCFD). The innovative proposal for funding the cultural arts directed that funds from a one-tenth of 1 percent sales-and-use tax would be distributed beginning in 1989 among cultural organizations both large and small throughout six counties (seven counties today) in the Denver area. The SCFD sales tax was key to reinvigorating the Museum’s education, exhibits, collections, and
research efforts to enrich the visitor experience. The Museum used this novel revenue stream to refurbish dioramas and other permanent exhibits, increase care and management of collections, mount exhibits and programs in the building additions, increase outreach to metro area schools to broaden education in the natural sciences, bring in more large traveling exhibitions, and hire a new group of scientists as curators with national reputations. In its first disbursement in 1989, the Museum received $1.4 million from SCFD; the next year it received $3.4 million. With the new funding also came regular Free Days for residents of the tax district.

During this period Museum administrators began to seriously consider how to shore up the Museum’s scientific qualifications. Jane Stevenson Day (Fig. 1.51) had been appointed to the post of chief curator. She oversaw a new direction for the Collections and Research Division, adding more PhDs to the curatorial staff, obtaining more external grants, and encouraging the publication of more academic papers by the research staff. One year after her selection, the staff’s scientific publications leapt from 3 to 10, and then to 35 the next year. Day also oversaw naming H. Marie Wormington as curator emeritus of archaeology and establishing an annual distinguished lectureship named in her honor.

Long-term preservation of the scientific collections was also on the minds of administrators. The Museum’s first collections conservation survey was conducted by the Rocky Mountain Regional Conservation Center and served as the basis for grant applications and requests for use of SCFD funds. New funding allowed the Museum to clean, reorganize, and restore hundreds of objects from the anthropology collections. In 1990, Carl Patterson was hired as the Museum’s first conservator in the newly founded Conservation Department. He opened the first conservation lab and wrote the first long-term conservation plan. The Conservation Department has a successful grant-writing history, receiving grants totaling more than $1 million from the Institute of Museum and Library Services since 1990 to support preservation of the collections. This funding has supported improved storage conditions and stabilization treatments for thousands of objects and specimens.

Day’s leadership also invigorated the Museum’s publications program (Fig. 1.52). The Proceedings of the Denver Museum of Natural History began anew, and a publication manager, Betsy Armstrong, was hired to develop a series of both popular and scientific works. Among these was a

*Hall of Life* opened in 1990, paired with popular health education programs offered at the Museum and at locations around the state. Installed outside in front of the building that same year was *When Legends Run Free*, a set of bronze pieces depicting a pack of wolves, sculpted by Colorado artist Rik Sargent. Educational programming was expanding more broadly at this time, too: the Museum initiated a Paleontology Certification Program to allow “citizen-scientists” to get a basic education in the field and participate in actual research; and Robert Ballard’s JASON Project, a live-action outreach effort using satellite technology was presented for the first time. With a renewed emphasis on audience, the Museum also began a formal effort to encourage diversity in its visitorship.

For all of these efforts, the El Pomar Foundation recognized the Museum with the Julie and Spencer Penrose Award as Colorado’s outstanding cultural institution of 1991. Strides continued. Computerization of collections began with a grant from the Helen K. and Arthur E. Johnson Foundation, and Mead Hall was refurbished into *Explore Colorado*, featuring dioramas of the state’s ecosystems and interactive elements for visitors. It received the Curator’s Award from the American Association of Museums. WOW (Worlds of Wonder), an outreach vehicle and program, completed its first year and brought “suitcase programs” to 72,000 schoolchildren. The biggest hit, though, was another blockbuster exhibition, this time one that was created in-house under the leadership of Day. As the annual report summarized it,

*Aztec: The World of Moctezuma* was the most complete exhibition of Aztec culture ever seen in this country. Museum staff re-created the sophisticated Aztec world that ended in 1521. We are especially proud that Aztec, which was exhibited only in Denver, was conceived and produced by our own

Figure 1.52. Museum publications.
Aztec (Fig. 1.53) brought in 721,000 visitors and helped the Museum reach its highest onsite annual attendance number: 1.9 million. The blockbuster also increased attendance in IMAX (633,000) and the Planetarium (201,000). These numbers placed the Museum “third in attendance among natural history museums, behind only the Smithsonian Institution’s National Museum of Natural History and the American Museum of Natural History in New York City. This is all the more noteworthy considering that the Denver Metropolitan area ranked twenty-first in population in 1993 among the nation’s metropolitan areas.” The Museum’s membership of...
33,000 households also ranked “third among the nation’s natural history museums.”71 Numbers aside, Aztec also presented great content, receiving an award from the American Association of Museums for “excellence in exhibition concept, content, and execution.”72

Original scientific work also continued apace, particularly in paleontology. In 1989 and 1990, Richard Stucky and Kirk Johnson were hired, respectively, to lead the development of a new paleontology research program and exhibition, ultimately entitled Prehistoric Journey. Stucky had been a curator of paleontology at the Carnegie Museum in Pennsylvania, and Johnson had just completed his post-doctorate work in Australia. Each would later serve in vice president positions and as chief curator at the Museum. In 1992, Bryan Small discovered the most complete Stegosaurus skeleton then known, and in 1994 he excavated the most complete Tyrannosaurus rex specimen ever found in Colorado. The next year the Museum received a $225,000 National Science Foundation grant to conserve the vertebrate paleontology collection.

In June 1994 Welles retired, and the Museum’s annual report summarized some of his successes:

During Welles’ tenure ... Museum attendance increased by 40 percent, memberships increased by 33 percent, the Museum’s endowment increased by 369 percent, and the volunteer program grew from about 400 volunteers in 1987 to nearly 2,400 in 1994. One of Welles’ most significant contributions was the addition of professional staff in the Collections and Research Division that enhanced the Museum’s ability to serve the public as a resource for scientific research and information sharing.73

New Directions

In the spring of 1995, Raylene Decatur became the Museum’s top executive (Fig. 1.54). When she was hired, more emphasis was placed on the fact that the Trustees had returned to hiring a museum professional than on the fact that Decatur was the Museum’s first female director.74 However, rather than fitting the mold of Figgins or Bailey, who were scientist-directors, Decatur came from the administrative and exhibit side of the museum world. Decatur held experience as a curatorial assistant (Renwick Gallery, 1978–1983), exhibit consultant (Lynch Museum Services, 1985–1987), director of exhibits (Academy of Natural Sciences of Philadelphia, 1988–1990), and executive director of the Maryland Science Center, where a headhunter found her and recommended her for the opening in Denver.
With the addition of the uniquely hands-on Hall of Life to the Museum and with increasing community discussions about the need for a science center in Denver, the Board felt that Decatur's particular experience would be great leverage in moving the Museum in a new direction. Reportedly, Decatur quickly came to realize the Museum's reputation in the community. She recounted,

When I travel on business I always talk to the taxi drivers. When I get into a cab and say I want to see the natural history museum or whatever, often the cab drivers go, “huh?” or “what?” But when I came to Denver and got into a cab and said, “I want to go to the Denver Museum of Natural History,” the driver, no matter how old he or she is, or what they may look like, or what you may perceive about them from their exterior appearance, launches into what they thought about the Ramses exhibit, what you’re bringing in the future, what you’ve had here, what’s the best IMAX film. It’s deep. They really understand what you have here, and they have a great level of pride. I think that’s the kind of pride in an institution that speaks well of programs and services within the community and the value that you’re creating in the community.75

Decatur inherited an institution in good shape, and 1995 saw a number of important achievements. Most significantly, SCFD funding was reauthorized by the generosity of metro Denver voters, securing a vital source of revenue. In the fall the permanent exhibition Prehistoric Journey opened, telling the story of life on Earth from its beginning to the dawn of humankind. The exhibition included the Museum’s first “enviroramas,” with sound and light effects, and the Schlessman Family Laboratory of Earth Sciences, which for the first time allowed public observation and access to the processing of ancient fossils (Fig. 1.55). The Museum was honored when Prehistoric Journey was selected as outstanding exhibition of 1995 by the American Association of Museums Curators’ Committee. Also, a permanent exhibition master
plan was completed, laying the groundwork for future endeavors. Collections also continued to be acquired. The Adolph Coors Foundation gave the Museum the “Alma King,” the largest and finest known rhodochrosite crystal on Earth (Fig. 1.56), now displayed in Coors Gems and Minerals Hall. And, in Decatur’s freshmen year at the Museum, “An unexpected but exciting development was the acquisition of a 1.75 million-year-old Oldowan pebble tool. Among the most significant artifacts ever donated to the Museum, it represents one of the earliest attempts by our hominid ancestors to control their lives by making tools. It was donated by Dr. Anthony J. Pfeiffer, whose father, science writer John Pfeiffer, received the tool from famed anthropologist and archaeologist Dr. Louis Leakey.”76 When Richard Stucky became chief curator in 1995, he initiated a complete revision of the collections policy and began centralized registration of all collections, eventually overseen by a professional collections registrar.

The grand traveling exhibition *Imperial Tombs of China* arrived in Denver in 1996 and was credited with raising Museum membership by 15 percent, to more than 41,000 households. Overall, the exhibition helped reach a total onsite and outreach attendance of more than 2 million, “making the Museum the most visited cultural institution in the Rocky Mountain Region.”77 In 1997, the Museum was chosen by federal officials as the site for the Summit of Eight conference; however, administrators turned it down because of the cost and disruption to the building. The Museum hosted a related reception and a corporate sponsor meeting with President Boris Yeltsin of Russia.

In addition to presenting major traveling exhibitions, the Museum had several memorable successes during this period. In 1998 Phipps IMAX Theater attendance totaled more than 906,000, fueled in part by the seven-month run of *Everest*, the most popular IMAX film ever shown at the Museum. Gates Planetarium, in turn, attracted nearly 40,000 visitors to *Where in the Universe Is Carmen Sandiego?*, an interactive show based on the popular PBS character and featuring actors who invited audience members to solve a mystery. This show was produced by the Planetarium staff as part of a consortium of seven international planetariums.

When Decatur arrived, she instituted a mission-driven planning process that identified major goals for the Museum. The process included a comprehensive review of each of the Museum’s core science competencies. In 1996, the Trustees, administration, and staff adopted a common vision focused on “presenting our world in transition.” Space sciences was added as a core competency, and plans began for the development of a new permanent exhibition, ultimately entitled *Space Odyssey*. Laura Danly joined the curatorial staff as the first space scientist hired at the Museum.

The 1990s included many additional highlights for the Museum’s research and collections. In 1998, arachnologist Paula Cushing was hired, and she launched the Colorado Spider Survey, the first comprehensive biological
survey of arachnids in Colorado, which engaged hundreds of citizen-scientists and collected thousands of specimens. Kirk Johnson excavated an ancient rain forest in Castle Rock, Colorado, and also led the Denver Basin Project, a major grant-funded initiative that involved drilling a 2,200-foot core from the ground near Kiowa, Colorado, to quantify the geology of the region.

In 1998, there was a major sign that times were changing for natural history museums: the Museum’s first website went live, and the Museum’s library catalog became the first collection to be accessible online. The Museum became a partner in the Colorado Digitization Project, a collaboration among Colorado’s archives, historical societies, libraries, and museums to provide access to the historical resources of the state.

In the late spring of 2000, in its centennial year, the institution adopted a new name: Denver Museum of Nature & Science (Fig. 1.57). The Museum’s Trustees unanimously agreed “after careful consideration that the time was right to update the Museum’s name and identity ... By incorporating the words nature and science into our name, we reflect the fact that nature and science are integral parts of the community and our mission, and reinforce our commitment to these key issues for the twenty-first century and beyond.”

The name change reflected a new direction for the Museum to become the leading science and natural history museum in the Rocky Mountain Region and implied a new emphasis on hands-on science experiences, culminating with Space Odyssey (2003) and Expedition Health (2009). In 2001, the Board approved the reorganization of the bylaws and structure of the Museum into a corporate model. The Museum director became president and chief executive officer of the Museum, and the senior leadership became vice presidents, responsible for fundraising, research and collections, finance, and the visitor experience in a rapidly changing marketplace.

Construction of the Space Odyssey exhibition led to a complete remodel of the Museum’s west side. In 2002 the Leprino Family Atrium (Fig. 1.58) opened, presenting one of Denver’s most iconic views of downtown Denver and miles of the snowcapped Rocky Mountains. The atrium’s interior was designed with some unusual architectural features, offering four rings of perforated aluminum meant to “represent the circles, orbits, and cycles inherent in the natural world” and “serve as a science lesson” as they were aligned to points on the horizon with the equinoxes and solstices. After scenic Bailey Lounge was closed due to the remodeling, the Board of Trustees voted to “name the Library and Archives for Dr. Alfred M. Bailey.” Another challenge of the modern age that had vexed the Museum for several years was inadequate parking for visitors. In 2002, a 564-space parking garage opened, a significant step in addressing the issue.
Space Odyssey was intentionally designed to have an original approach to delivering meaningful content to 21st-century audiences. Unlike most previous exhibitions at the Museum, Space Odyssey offered “hands-on science, allowing visitors to make their own discoveries about the mysterious worlds beyond Earth. Highly trained volunteers, along with educators and curators, provide timely science information and engage visitors in their own discoveries.”

The particularly novel tactic was using a digital collection of primarily news articles and images that constantly delivered space-related content and informed activities in the exhibition. In 2005 Space Odyssey received the coveted Leading Edge Award from the Association of Science-Technology Centers.

Accompanying Space Odyssey, Gates Planetarium reopened in a new facility with one-directional domed seating on a 25-degree tilt to make “the audience feel as if they are flying into the horizon rather than looking up into the sky.” A stage at the front of the theater allowed for speakers and performers. The digital format and high-resolution projection made it possible to create and present more-realistic shows.

In the opening days of 2004, Decatur announced her resignation to spend more time with her young family. During Decatur’s tenure, the
Museum changed its name and developed a strategic direction that addressed a rapidly changing world and included nontraditional topics and approaches for natural history museums, decisions that were not always popular. Museums across the country were evaluating the visitor experience and examining less didactic opportunities that involved greater participation of visitors in directing their own science learning, supported by professional and volunteer facilitators. These approaches shaped *Space Odyssey*, which was destined to become very popular among visitors and to influence the development of future exhibitions.

**Reinventing the Natural History Museum**

After Decatur’s departure, Tom Swanson, a Museum Trustee, stepped in as the Museum’s interim CEO. Swanson helped see the Museum through another successful SCFD reauthorization and the opening of the temporary exhibition, *The Quest for Immortality: Treasures of Ancient Egypt*.

By the end of the year, George W. Sparks became the Museum’s sixth leader (excluding interim directors) (Fig. 1.59). He was chosen from a field of six finalists culled from more than 200 resumes as a result of a national search. His science background was solid, with a master’s degree in aeronautics and astronautics from the Massachusetts Institute of Technology and a bachelor’s degree in aeronautical engineering from the U.S. Air Force Academy. Early in his career he served as a U.S. Air Force pilot and was an assistant professor of aeronautics at the Air Force Academy. For 20 years, from 1979 to 1999, Sparks worked for Hewlett-Packard, eventually becoming general manager of several divisions, and then until 2003 he served as a vice president for Agilent Technologies, a Hewlett-Packard spin-off.

Sparks described himself as the “luckiest guy in Colorado” to become president of the Museum. He dived into a comprehensive strategic planning process, which in 2005 generated new mission, vision, and strategic direction statements, eventually culminating with the Museum 20/20 Strategic Plan. The plan proposed $142 million in initiatives that would strongly propel the Museum forward into the 21st century, as described in the 2005 Annual Report:

> Our mission is to engage the public in science, and our vision is to create critical thinkers. We imagine children growing into literate, open-minded adults, whose knowledge of nature and science help them live as productive, inspired citizens
of the world. We strive to provide adults with quality opportunities as well, so that they can make informed decisions that affect their everyday lives.85

In 2006, the Museum would host the exhibition that was causing a stir around the world: Gunther von Hagens’ *Body Worlds*. The Museum was already deep into planning a new permanent exhibition about health sciences and had hired Bridget Coughlin, the first curator of human health. *Body Worlds* was an opportunity to showcase the Museum’s commitment to offering visitors compelling ways to learn about the human body and the importance of keeping it healthy. The exhibition’s unique approach to studying anatomy using real human bodies was clearly popular with the public: attendance reached 688,000 visitors.86 In an unprecedented move, the Museum was opened around the clock during the exhibition’s final weekend, and every single ticket was sold.

About this time, the Museum was honored when Colorado’s first astronaut, Scott Carpenter, one of the Original Seven, selected the Museum to display his Apollo Ambassador of Exploration Award, which features a moon rock encased in acrylic. The rock was collected from the surface of the moon in 1972 by Apollo 17, bringing home a little piece of history to inspire future space exploration.

In fall 2007, Sparks led the Museum through its next big undertaking: a successful $50 million bond election for the Museum. The people of Denver voted to fund deferred maintenance and help construct a new education and collections facility. Work quickly began on renovating and updating the existing building: upgrading Phipps Gallery for temporary exhibitions, installing clear film on diorama glass panes to lessen shatter risk, retrofitting older parts of the building with a new fire-suppression system, and making systems improvements to decrease the Museum’s environmental footprint. Plans for the new wing also began, to include three levels with technologically engaging spaces, an additional temporary exhibition gallery, and a new Discovery Zone for early learners, as well as a two-story underground state-of-the-art facility to house all the nearly 1.5 million objects and specimens in the Museum’s collections. The Research and Collections Division had completed its first-ever long-range collections plan in 2008, which would be instrumental in planning and preparation for the new consolidated collections facility, dubbed the Rocky Mountain Science Collections Center.87

In February 2009, Sparks received a surprise call from the White House saying that President Barack Obama wanted to sign the historic American Recovery and Reinvestment Act in the Museum’s southeast atrium (Fig. 1.60). The White House was seeking an opportunity to showcase green energies and had learned of the Museum’s newly installed rooftop solar array, the second largest in Colorado. Before signing the legislation into law, the President toured the array (Fig. 1.61), featuring 465 panels to provide up to 5 percent of the Museum’s
energy. President Obama, Vice President Joe Biden, and others left behind several significant, if unintended, donations for the Museum archives, including thank-you notes on white boards to staff whose offices they borrowed.

The first permanent exhibition of the Museum’s second century opened in April 2009 when Expedition Health brought an innovative approach to health education, a topic made very popular among Museum visitors by the retired Hall of Life. Using the volunteer- and technology-driven model successfully established by Space Odyssey, Expedition Health enlists an intentional process of discovery using a hike up Colorado’s Mount Evans as an overarching theme. Visitors move and measure their bodies at a variety of interactive stations. Expedition Health also premiered the first participatory theater in the Rocky Mountain Region, using special effects and other elements that give visitors a visceral look at how the body reacts during a mountain hike. Another key feature is the community lab, where the public participates in actual health-related research projects. In its first year, it received 425,000 visitors and the Museum’s second Leading Edge Award from the Association of Science-Technology Centers.

Connecting real people with real science was a challenge facing natural history museums as the 21st century got underway, and the Denver Museum was no different. Because the ways people receive and perceive information were constantly changing, the Museum remained open to applying creative ways to make science more approachable for a wide variety of audiences. Living history actors had been successfully used in temporary exhibitions about Ben Franklin and the Titanic, and these enactors were now a regular part of the Museum’s visitor experience strategy. Science Lounge became a monthly series aimed at offering entertainment, science, and cocktails to an adult audience. Technology was applied as well: Scientists in Action, produced by the Museum, presented a modern-day JASON Project–style interactive communication between students and scientists; Science on a Sphere, a spherical projection system incorporated into Space Odyssey provided to visitors a whole new perspective on Earth and other planets; and Science Bites, an online video series featured Museum scientists explaining the how and why behind headline news as well as science topics occurring right in Colorado. (Sciences Bites was also shown on Rocky Mountain PBS.)
In 2010, the Museum received both the largest single private donation and the largest grant in its history. The Morgridge Family Foundation gave $8 million for construction of the upper three levels of the new education and collections wing, aptly named the Morgridge Family Exploration Center (Fig. 1.62). The National Science Foundation awarded $3.27 million for Urban Advantage Metro Denver, a program designed to improve science literacy among urban middle-school students. These gifts both helped buoy the Museum’s historic commitment to engaging children and youth in science education. By the early 2000s, more than 300,000 students and teachers were participating in science education programs annually. Opportunities for free general admission and robust scholarship programs also helped ensure that every child in metro Denver would have access to a Museum visit.

Museum membership was also reaching record levels beginning in 2010. The year ended with more than 58,000 households, a first-time high for the Museum, and it continued to rise from there with a record 64,000 at the end of the following year. Membership dues generated more than $4 million in revenue; however, the members’ role as Museum champions in the community continued to be priceless. The Museum has also had the good fortune of long having the largest volunteer corps among any museum in the country. Upward of 1,500 to 1,700 people volunteer at the Museum on a regular basis, working more than 200,000 hours per year. Volunteer opportunities abound for people of all ages—families, teens, those retired, and those still employed—to work behind the scenes and in public areas with visitors. The unparalleled commitment of the both members and volunteers has truly contributed to making the Museum one of the best in the country.

The Ice Age Returns

In October 2010, the Museum received a call from a crew digging a reservoir high in the mountains of Colorado. A bulldozer operator had unearthed something interesting, and the crew thought the Museum’s scientists had better come take a look. Indeed, they had stumbled upon the remains of a female Columbian mammoth; after digging a little deeper, the Museum began excavating one of the most remarkable scientific finds in Colorado history.

The find was an exceptionally well-preserved fossil site, packed with Ice Age animals. Just as winter was moving in, Museum scientists and volunteers, under the direction of Chief Curator Kirk Johnson, raced against the calendar to begin excavating the site. The Museum’s scientific team was clearly amazed, as Ian Miller, curator of paleontology, recounted:

The original discovery at the site, the juvenile mammoth, is more spectacular with each day of excavation, with its...
pelvis and cervical vertebrae now exposed. Teams are also digging in the sloth pit, which is still producing various mastodon parts, and in a new peat site that has a disarticulated mammoth. As the logistical leader of the excavation, I end up doing a little of everything, which is fantastic. We have found something stunning every single day. I should be used to it by now, but I’m still floored every time.90

Before snowfall suspended their efforts, the team found the remains of 10 American mastodons, four Columbian mammoths, a Jefferson’s ground sloth, four gigantic Ice Age bison, two Ice Age deer, snails, iridescent insects, and plants still green after being buried for 40,000 to 130,000 years. Educational events were quickly organized, pulling in thousands of Coloradans who were thrilled to be a part of this amazing discovery made right in their own backyard. Between May 15 and July 1, 2011, an enthusiastic, tireless crew of about several hundred staff and volunteers returned to the site to ultimately recover more than 5,000 large fossil bones and another 22,000 tiny ones (Fig. 1.63). The “Snowmastodon Project,” as the discovery was christened and trademarked by the Museum, received international media attention and was the subject of a highly rated episode of NOVA on PBS. The project was the capstone of paleontologist Kirk Johnson’s career at the Museum (Fig. 1.64). In 2012, he left to become director of the National Natural History Museum at the Smithsonian in Washington, D.C. In 2013, Scott Sampson, another paleontologist with a national reputation, was hired to become chief curator and vice president of research and collections.

Perhaps more than any other single event, the Snowmastodon Project epitomized what the Museum had become and what it could do after more than a century of existence. Museum scientists had the expertise to conduct the excavations; a corps of trained citizen-scientist volunteers was ready to assist; collections and conservation personnel were prepared to process these delicate specimens; outreach specialists and educators could create exciting new programs that drew thousands of people; a marketing team could coordinate and promote the discovery; a fundraising team could attract the

Figure 1.63. The skull of a massive Ice Age bison (Bison latifrons) was considered by scientists to be the prize specimen unearthed at the Snowmass Village Ice Age site.
necessary resources; and the Museum was respected enough across the state to become the trusted repository for one of the most spectacular paleontological finds in Colorado’s history.

As the Denver Museum of Nature & Science continues in its second century, it is prepared to open a 126,000-square-foot addition in February 2014 that will be one of the greenest and most energy sustainable spaces in Denver and will leave a positive and lasting mark on the city with innovative, interactive science experiences for all ages and long-desired consolidated preservation for the collections. Sparks is challenging the Museum to embark on a new strategic intent that would reinvent the relevance of natural history and science through experiential engagement. The Museum experience would not just focus on what visitors do within the building but will be augmented by extending the visitor experience outside in the natural world and in the ever-changing virtual world.

The Museum has clearly, unquestionably, become everything its founders dreamed it would one day become, a museum that would grow to be “one of the great entertaining and educational institutions of the country.”

Figure 1.64. Lead scientist Kirk Johnson kneels in front of an enthusiastic team of Museum staff and volunteers at the Snowmass Village Ice Age site. Photo © Ray Troll.
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