

BY ROBERT G. BAILEY  
PHOTOGRAPHY BY ALEXANDER VERTIKOFF

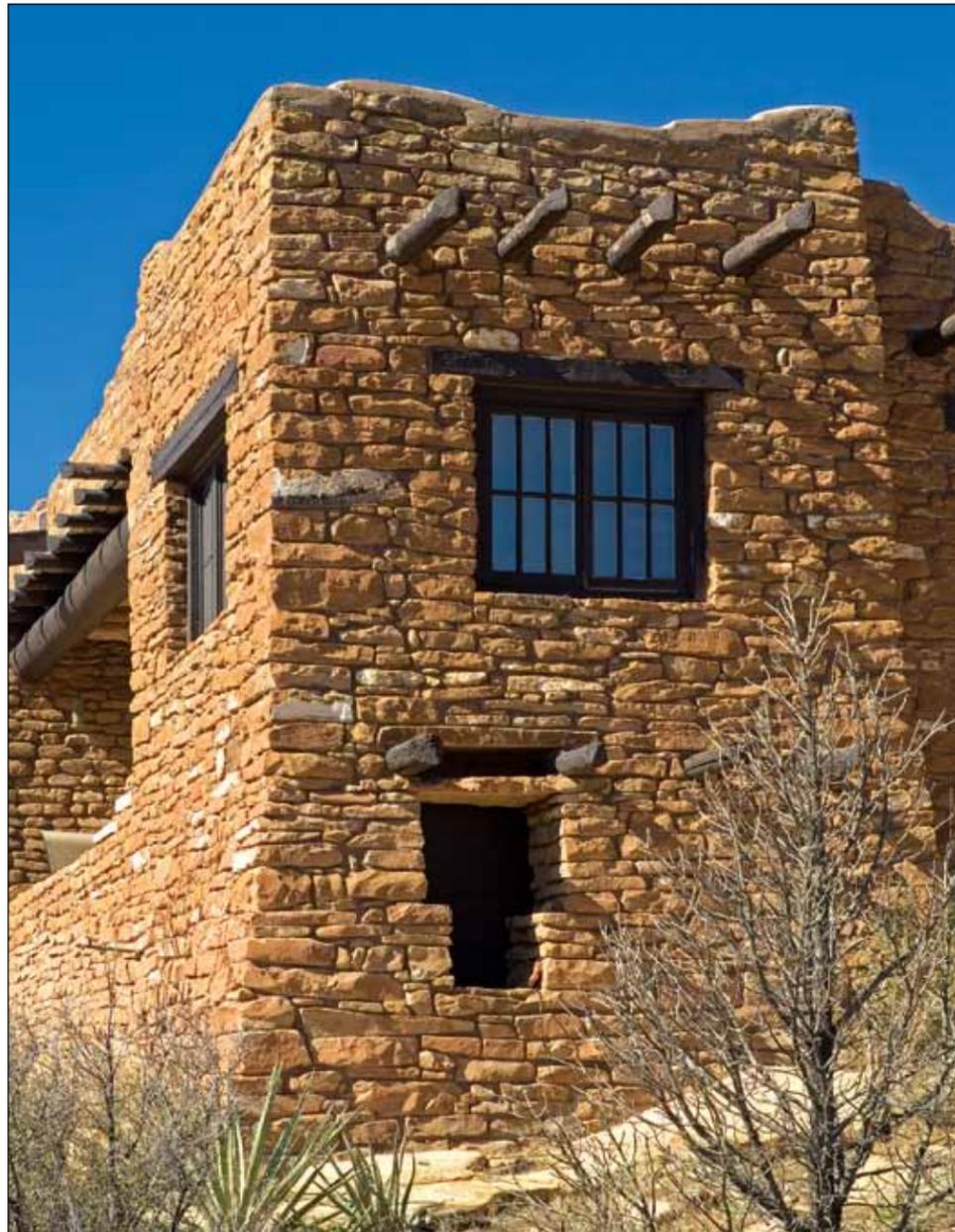
**W**HEN THE NATIONAL PARK SERVICE was established in 1916, the new agency inherited an architectural legacy developed by private interests, particularly the railroads. This legacy included Northern Pacific's Old Faithful Inn in Yellowstone and Santa Fe's El Tovar at the south rim of the Grand Canyon, both built in the Swiss Chalet–Norway Villa tradition. This historical precedent—borrowing attractive yet incongruous design themes from the Old World with little regard for the natural setting—was inherited by the designers of the

structures at Colorado's Mesa Verde National Park. Yet, rather than follow tradition, principal designers husband and wife Jesse and Aileen Nusbaum became the first to incorporate surrounding ecological themes into the design of a National Park structure, not only setting a new precedent, but creating a clear sense of design purpose that would contribute significantly to the nation's architectural heritage.

As the first National Park Service (NPS) building to be designed with a sense of its place, the superintendent's

## **A Sense of Place:** Ecoregional Design at Mesa Verde National Park





THE T-SHAPED DOORWAY WAS INSPIRED BY ANCIENT ANASAZI DWELLINGS IN THE SOUTHWEST, SUCH AS PUEBLO BONITO IN CHACO CANYON NATIONAL HISTORICAL PARK, NEW MEXICO.

residence at Mesa Verde is unique; the 1921 building was also the first NPS building to incorporate local cultural traditions into the construction. Called the Pueblo Revival style, this architectural style drew its inspiration from the Spanish missions and pueblos of New Mexico, designed to blend in while enhancing the experience of visitors to the park. The Nusbaums believed structures could be used to explain the construction of prehistoric dwellings in the park and could also be compatible with their natural and cultural settings. They did so by looking at the ecology of the region in which the park is located and the vernacular architecture it engendered.

### Style Fit for the Ancients

In the first years after Mesa Verde became a park in 1906, it was poorly managed. Looting and vandalism of the ruins (including more than 4,000 ancestral Pueblo archaeological sites and 600 cliff dwellings) was rampant. At best, early administrators ignored the destruction; at worst, they profited financially from it. In 1921, Director Stephen Mather hired Jesse Nusbaum to oversee management of the archeological resources and development of the area. This Colorado native, the first trained archeologist employed by the Park Service, had participated in numerous archeological surveys, excavations and



FORTRESS-LIKE OUTSIDE, THE VIEW FROM THE MAIN ENTRANCE WITH ITS SAWN-GRILL FRONT DOOR REVEALS A WELCOMING AND ELEGANT INTERIOR.

stabilizations throughout middle America and the Southwest, including Mesa Verde. Nusbaum, along with his talented wife, Aileen, settled on the obvious choice for the most accurate architectural style for the area: the ancient pueblos. In his submission to build this structure, he wrote that a modern building would be out of place amid the ancient ruins. He noted that appropriate materials would be easily attainable and that the Pueblo Style would “help to preserve the Indian atmosphere which the ruins and environment create.”

Aileen O’Bryan Nusbaum was well suited to collaborate with her husband on the design of Pueblo Style buildings for the park. A native of the Southwest, she had spent 12 years in Paris studying art and drama at the Sorbonne; she also served as a nurse during World War I. Intrigued by the ancient culture of the Pueblo and Navajo people, she poured enormous energies into designing park buildings and programs. She undoubtedly called upon her nursing experience when she designed a small hospital in the park for employees and tourists; when it opened in 1926, Congress named it for her.



NATIVE VEGETATION OF PIÑON AND JUNIPER WOODLAND MAKES THE BUILDING SEEM INDIGENOUS TO ITS SURROUNDING.

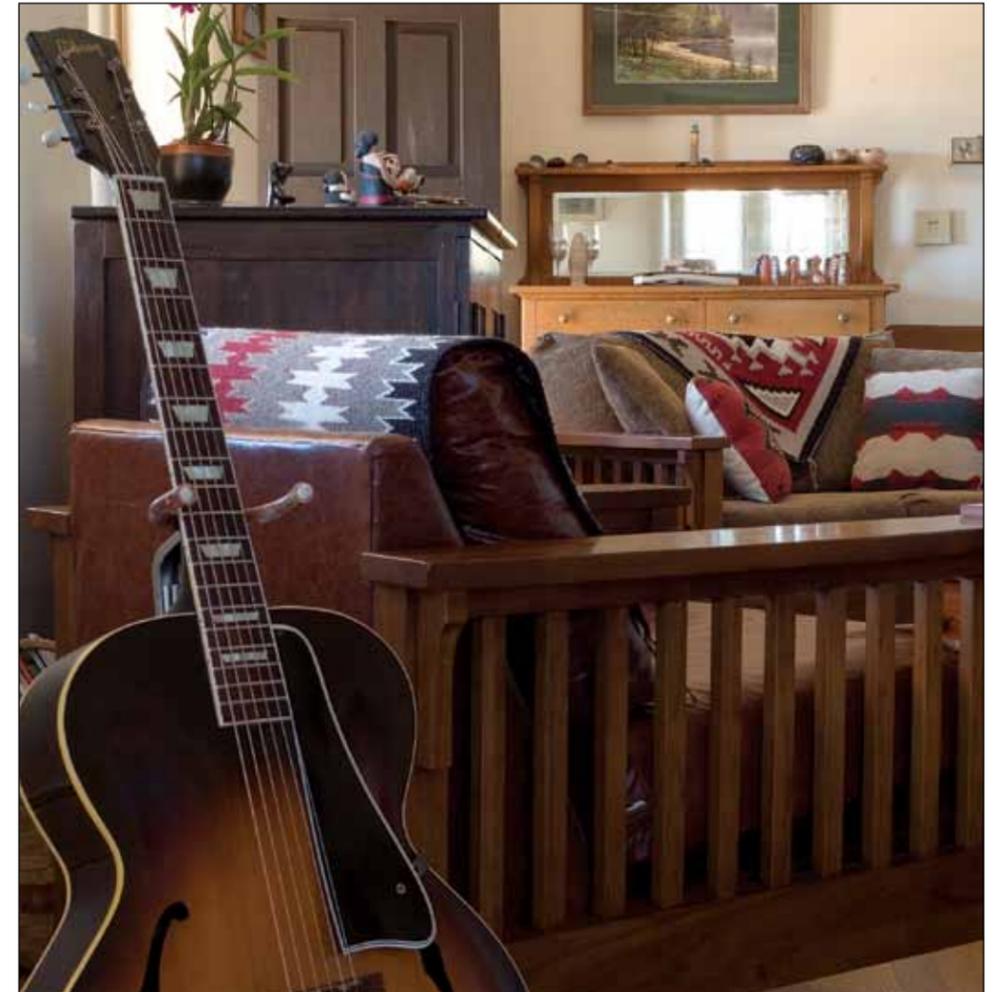
### Hopi Inspiration

The first project designed and built by Jesse Nusbaum was the superintendent's house, based on Hopi architecture. It was likely inspired by the Hopi House (opened in 1905) in Grand Canyon National Park, Ariz., the first building designed by renowned Southwest architect Mary Jane Colter. Nusbaum had collaborated with Colter on the Painted Desert Exhibit for the 1915 San Diego exposition. Rather than look toward the park's natural resources for design ideas as other park managers had, Nusbaum broke with tradition. His buildings would be the first constructed with the intent of creating culturally appropriate architecture for park lands that had been designated for their cultural, rather than natural, significance.

The house was a triumph. Nusbaum even made the furniture for the house, using as inspiration the simple lines of New Mexico's earliest Spanish Colonial style. When curious tourists clamored to see it inside and out, the Nusbaums opened it for public tours until requests overwhelmed them.



HOPi HOUSE AT GRAND CANYON NATIONAL PARK, OPENED IN 1905, WAS MARY JANE COLTER'S FIRST BUILDING THAT WAS INSPIRED BY THE ANCIENT HOPi VILLAGE OF ORAIBI, ARIZONA. VINTAGE POSTCARD BY DETROIT PUBLISHING CO. FOR FRED HARVEY.



THE LIVING ROOM IS OUTFITTED WITH VINTAGE FURNISHINGS AND WESTERN ITEMS THAT COMPLEMENT EACH OTHER AND REFLECT THE FEELING OF THE PUEBLO ERA. THE WEAVINGS DRAPED OVER THE SOFA AND CHAIR ARE NAVAJO RUGS. BELOW, THE HOUSE AS IT LOOKED WHEN THE NUSBAUMS OCCUPIED IT.



Nusbaum served as Superintendent at Mesa Verde until 1931, when he left for Santa Fe to become the director of the Laboratory of Anthropology. Soon after, the Nusbaums separated. He returned as superintendent twice in the next 15 years, from 1936 to 1939 and again during World War II. Throughout his life, Nusbaum's ties to Mesa Verde remained strong; while in Santa Fe he reviewed the blueprints and drawings of the buildings he had designed for alterations. He sought the advice of his friend, Southwest architect John Gaw Meem, the first architect to be associated with Regionalism. Meem is best known for his instrumental role in the development and popularization of the Pueblo Revival style. Variations on this style were used in the quickly developing southwestern parks and monuments in the 1930s.

VIEW FROM FRONT DOOR TOWARD SPRUCE TREE CANYON.



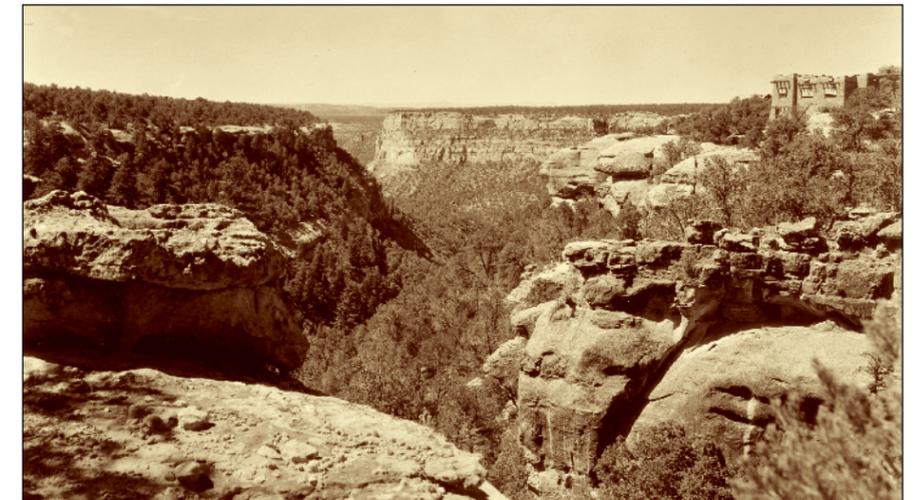
### Design and History

The Mesa Verde superintendent's residence is a one-story, flat-roofed building with buff sandstone-block exterior walls, projecting exposed peeled beams (vigas) on all facades, and parapet walls of varied heights. It is generally rectangular in plan but with bays projecting on all sides. This irregular building plan resulted from the shape of the rooms. This "form-follows-structure" method of building is typical of prehistoric and historic pueblo structures, and is commonly used in these revival structures. The house is of modest size, measuring 58 feet by 36 feet, and approximately 10 feet high.

The residence is part of a six-building Administrative District including the post office, park headquarters, the old community building (now the ranger station), the



RIGHT, A 1929 VIEW DOWN SPRUCE TREE CANYON INTO NAVAJO CANYON, SHOWING RESIDENCE OF SUPERINTENDENT JESSE NUSBAUM (BARELY DISCERNABLE ON RIGHT). THIS HOUSE IS SET IN THE MATRIX OF THE NATIVE LANDSCAPE, ENSURING CONTINUITY AND CREATING A DEFINED SENSE OF PLACE. BELOW, A FORMER WATER TOWER CONVERTED TO PARK-RANGER HOUSING.



GEORGE GRANT, NATIONAL PARK SERVICE.

## Responding to the Environment: Learning from the Anasazi



SCOTT CATRON  
BELOW, THE SIDE PORTAL, A 1930s ADDITION, PROVIDES A MAGNIFICENT VIEW OF SPRUCE TREE CANYON (ALSO SEEN IN THE DETAIL PHOTO ABOVE). THE CEILING TREATMENT IN THIS SPACE IS DIFFERENT FROM THAT IN THE INTERIOR ROOMS. HERE, THE PRINCIPAL VIGAS (PEELED BEAMS) SUPPORT LARGE LATIAS (HALF-ROUND SAPLINGS), WHICH IN TURN SUPPORT SMALL LATIAS RUNNING PARALLEL TO THE MAIN VIGAS. OPPOSITE PAGE, TOP: VINTAGE NATIONAL PARK DECAL AND STAMP SHOW CLIFF PALACE; BOTTOM, THE CLIFF DWELLINGS OF THE ANASAZI (NOW MORE PROPERLY REFERRED TO AS ANCESTRAL PUEBLOANS) IN A VINTAGE POSTCARD BY DETROIT PUBLISHING CO.

**T**hroughout the world, disregard for ecological settings has resulted in unsustainable buildings that require vast amounts of energy to overcome the climate. Our ecological crises have resulted, in part, from a failure to match human development to the limits of the regions where we live and build. The vast water-diversion and power-generation projects that maintain life in desert towns like Phoenix, Los Angeles and Las Vegas are an immense drain on natural resources. Many of the buildings in these regions are out of place. Conserving resources first requires attention to a sense of place, and matching development to the limits of the regions where we live. The homes of the prehistoric Anasazi people of Mesa Verde are a prime example of buildings that suit their ecoregional conditions. The buildings at Mesa Verde

National Park are more recent examples of successful and sustainable design with a clear understanding of the importance of place.

In the southwestern corner of Colorado, Mesa Verde National Park lies within the semi-desert ecoregion province of the Colorado Plateau, a high-elevation tableland dissected into canyons and arroyos by rivers and intermittent streams. (Ecoregions are large ecosystems differentiated primarily by macroclimatic conditions and the prevailing plant formations that are determined by those conditions.) The geology is nearly horizontal sedimentary rock punctuated intermittently by structures of volcanic origin. Elevations of the plateau tops range from 5,000 to 7,000 feet, with local relief ranging from 500 to more than 4,000 feet in some of the deeper canyons (such as the Grand Canyon of the Colorado River).

Throughout the province, these canyons provided logical building sites for ancient peoples; they were sheltered and close to a water source. Due to the region's generally high elevation, the climate is characterized by cold winters. Summer days are usually hot, but nights are cool, a point incorporated into the Mesa Verde house through the thick walls that insulate the house from heat and cold. Average annual precipitation is about 20 inches, with some parts of the province receiving less than 10 inches. The precipitation is highly variable from year to year, and includes periods of prolonged drought. In fact, drought is thought to be the reason the Anasazi abandoned their dwellings at the end of the 13th century.

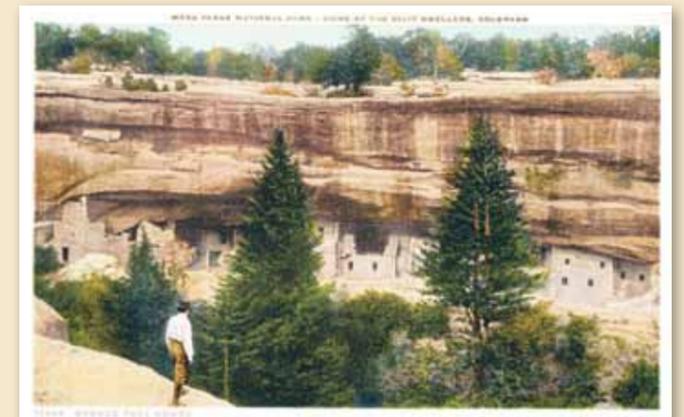
### Ecological Design at the Ecoregional Scale

In response to their regional climate and ecology, the prehistoric Anasazi of the Colorado Plateau built high-mass adobe cliff dwellings in the canyons. These were built in south-facing caves that afforded passive solar gain in the winter and blocked heat gain in the summer. The caves were created by groundwater softening the cement in the sandstone, permitting loosened grains to be blown away.



The Anasazi's basic construction material was sandstone shaped into rectangular blocks. The mortar between the blocks was a mix of dirt and water. Walls are still tall and straight, having withstood the tests of time and the elements. In the pueblos of Zuni, Taos, Acoma and elsewhere in the southwestern deserts, the Anasazi's successors used adobe and thermal mass to create pueblo dwellings that were kept cool in the open desert. In other regions, homes constructed of brick have the same effect.

Understanding the natural processes that distinguish different regions, then designing structures and land uses accordingly, is the opposite of one-size-fits-all mass production, in which standard templates are replicated with little regard to place. Just as the ancients did, sustainable designers understand that regional ecology provides essential keys to sustainable design.





museum, and the ranger club (now the park library). These Park Service buildings were declared a National Historic Landmark in 1987. The structures are atop a mesa near the edge of Spruce Tree Canyon, in a piñon and juniper forest, overlooking Spruce Tree House, a pre-historic Anasazi dwelling built into the cliffs circa A.D. 1100 to 1275.

#### Mindful Renovations, Indigenous Details

The superintendent's building evolved in three major stages, starting as a four-room family home in 1921. An addition in 1928 created two new guest rooms, and a second remodel during the 1930s added a portal, another bedroom and bath, and a study. The building now contains just over 2,000 square feet of living space. The building's

18-inch-thick stone walls add thermal mass; the walls contain stones used in prehistoric Anasazi structures (visible peck-marks indicate primitive use). A T-shaped doorway in a lower-level wall replicates the form common to these structures. Vigas in some of the rooms lend a rustic, Mission-era flavor. In the corner of the wood-floored living room is a stucco fireplace. Bullnosed corners smooth out the seams of the home's plaster walls, while two of the doors in the house have sawn grilles for their upper portions.

As the Anasazi had done to gain access to their dwellings, stair steps were carved into the rock leading down to the residence. The paved walkways and stone steps bordered by low stone curbs that meander throughout the district are small, in keeping with the small scale of the

structures. Plantings of native vegetation screen the buildings from the hot sun and make the buildings meld into their surroundings.

The last superintendent to live in the house was Larry Wiese, who retired in 2009 (the vintage furnishings pictured here belong to him). The building, currently used for staff meetings, will eventually house artists participating in the park's Artist-in-Residence Program.

The design of the superintendent's residence, its materials, and the way it is organically sited on the landscape are reminiscent of such Frank Lloyd Wright works as Fallingwater in Pennsylvania and Taliesin West in Arizona, as well as Mary Jane Colter's Hopi House and Lookout Studio in Grand Canyon National Park, emerging from the landscape rather than being plopped down upon it. These classic vernacular buildings are a unique regional style in the sense that they mimic the characteris-

tics of the culture and of the ecological region. The design concept carried out by Jesse and Aileen Nusbaum at Mesa Verde, that park buildings should honor and blend into the site on which they are built, would set the tone for an extensive and varied architectural-design philosophy that is a source of national pride to this day. The Nusbaums' architectural contributions to the National Park Service would eventually be recognized for what they are: a visionary example of integrating buildings into the park setting, truly embodying a sense of place. 

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BELOW, THE LIVING ROOM OF THE SUPERINTENDENT'S RESIDENCE INCLUDES A CORNER FIREPLACE TYPICAL OF THE SOUTHWEST, AND VIGAS WITH COVERED PLASTER BETWEEN THEM. OPPOSITE, 18-INCH-THICK STONE WALLS OF THE MESA VERDE MUSEUM PROTECT THE INTERIOR FROM DESERT EXTREMES: BLISTERINGLY HOT DAYS AND FRIGID NIGHTS.

