# The Chief Vann House: Recognizing Sustainable Architecture from Historic Cultures

*Irina Garner*

In the rolling hills of northwest Georgia, well off the beaten path, sits a small township called Spring Place. The inhabitants of this township will tell you stories of their youth, how they picked cotton in the summer, strung beans into leather britches with their grandmas, and still walked to school, stopping often to play in the cold, freshwater springs that merrily bubble to the surface in no particular pattern throughout the township. They will tell you that every year the students took great joy in abandoning their classrooms to walk to the "Indian Palace," a favorite field trip. Even today, stories are told about mean James Vann and his hidden Cherokee gold, still undiscovered to this day. Some 80 years ago, local volunteers took great efforts to raise money and purchase the crumbling home of the Vann family, a wealthy Cherokee family removed west on the Trail of Tears, and donate it to the newly formed Georgia Historical Commission for restoration and preservation. Since 1958, state park rangers and volunteers have been guiding visitors on tours of the Vann House, the 19th-century planation home of Cherokee Chiefs James and Joseph Vann.

In the early 19th century, James Vann became the wealthiest businessman and property owner within the boundaries of the historic Cherokee Country of modern Georgia, Tennessee, Alabama, and North Carolina. He established the largest and most prosperous plantation for its time, covering more than 800 acres, with additional properties, ferries, and businesses. The Vanns lived a mostly western life and participated in trade with Americans as well as the Trans-Atlantic Slave Trade, and later traded slaves within North America. Of all their holdings and land improvements, the Vann House is the only remaining building, a reminder of an age long past. Today, visitors to Chief Vann House State Historic Site face the complicated reality of seeing the historical achievements of the Cherokee people in the face of western advancement, while also acknowledging that the wealth of the Vann family was sourced in large part from the slave trade and supported by slave labor.

If guests are expecting a sleepy tour of a fancy historic home, guides may defy those expectations with discussions of 19th-century Georgia land lotteries, accomplishments of the Cherokee government past and present, enslavement, neighborhood gossip from 180 years ago, and, interestingly enough, the benefits of sustainable, eco-friendly, historic architecture. The Vanns claimed ownership of over 100 enslaved Africans and American-born people of African descent.[1] The dissonance that visitors encounter is often exacerbated by a lack of comprehensive historical teaching due, in part, to a decades-long attempt to silence the victims of American exceptionalism through societal pressure.[2] The dismissal of Native and African American voices and accomplishments at historic sites across the country not only contributes to the dismissal of their civil and human rights, but also ignores how their historical contributions can, among other things, promote understanding of environmental sustainability in historic properties such as this one. Visitors touring the Chief Vann House may not be prepared for the diverse and nuanced stories that park rangers share, including a story about passive energy.

At the Vann House, interpretive rangers found a way to expand the story of the Vann family beyond the loss of their plantation by telling stories of the work performed by the people the Vanns enslaved, including the plantation house they built for the Vanns to live in. Built in the early 19th century, the Vann House represents the best preserved of the pre-removal Cherokee plantation homes. James Vann and his son, Joseph "Rich Joe" Vann,

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were extremely wealthy Cherokee councilmen with mixed Scottish ancestry. Although the family identified as Cherokee, their thriving trade business was fully westernized. Support from James Vann's wealth helped expand the 1804 Federal Road (or Georgia Road) through the Cherokee Nation and helped establish the first western-style school for Cherokee children. The Springplace Moravian Mission taught more than 100 Cherokee students, some who would go on to be prominent Cherokee leaders such as Joseph and David Vann, (heirs of the Vann estate), newspaper editor Elias Boudinot, and Stand Watie, the Cherokee chief and Confederate general who supported the Treaty Party. The Moravians at the Springplace Mission included master craftsmen, teachers, and even botanists, such as the published writer of "Plants of the Cherokee Country," Anna Rosina Kleist Gambold.[3] Despite his connections to the school, his western trade business, and his wealth, "Rich Joe" Vann could do little to halt the greed of White southern plantation owners in search of land, and, in 1835, the family was violently removed from their home and forced to settle west in Webber's Falls, Oklahoma.

Politically, the Vann family allied with Principal Chief John Ross and his Nationalist Party to rally their people and stand united against the tyrannical Georgia government in its attempts to expel the Cherokee from their homelands. As such, the Vanns invested in future businesses and in their own lands; both James and Joe built two-story mansions on their Diamond Hill plantation, but the Moravian missionaries wrote in their daily logs that Joe's 1819 house was large and brick, so many researchers theorize that the structure, listed on the National Register of Historic Places, is actually Joe Vann's home.[4] In any case, the façade of the Vann House preserved at the state historic site has the quintessential symmetrical simplicity of an early-19th-century Federalist-era building. Like others of its time, it features large symmetrical windows with lintels and a central front door crowned by elliptical fan lights, flanked by side lights, and

Ranger Garner (author, center) giving tour in the "floating" staircase, April 12, 2023. When a set of doors is open on the first floors, winding staircases like this create a vacuum, funneling hot air up and out of the main floors. LEAH S. GLASER

surrounded by ornate cornice work more delicate than its Georgian predecessors. Inside the Vann House, bright colors and detailed woodwork greet visitors, along with plastered walls, high ceilings, and, of course, the famous "floating" staircase that can be fully viewed as it spirals up through the second floor to the attic entrance.

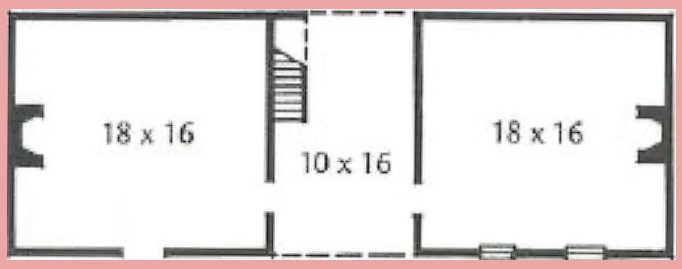

**FIGURE 1.** A dogtrot floor plan (Montell and Morse 1976).

These very features contribute to the house's energy-efficient design, which is surprising to some, as older homes are notorious for their construction challenges: drafts and ill-fitted, warped openings combined with the difficulties of discreetly installing electric wiring, central heating and air ducts, and plumbing systems are all encounters that plague any renovation of an older home. The high costs associated with many of these upgrades can drive away the average home buyer and create the illusion that the home itself is poorly built and that, therefore, all older homes are energy inefficient. In truth, a study of select surviving structures reveals that architects of the past relied on ingenuity and an understanding of the home's location to keep the house's temperature regulated and make the structure last for generations. Features such as breezeways and wind towers created airflow, well-placed trees and hedges acted as sun or wind shields, extended eaves protected doorways and windows from the hot sun, and strong timbers and thick layers of insulating brick helped regulate a building's temperature. Familiarizing oneself with environmentally friendly and sustainable building practices of the past may not only help inspire future building projects, but also further a greater appreciation of the historical builders' lives and culture.

The house is ventilated by the commonsense functionality hidden behind the home's extravagance. The two outermost sections are living areas separated by an open hallway that accommodates airflow between the two rooms—a breezeway, or colloquially, a "dogtrot." The dogtrot design was not invented by the Cherokee—in fact the true origins of the design, found throughout the American South, are debated. The dogtrot design was popular for its time, most likely due to both its simplicity and its ability to help occupants remain cool in hot climates.

At its core, a dogtrot cabin is a double-pen home with a shared floor and roof, trisected into three main sections.[5] The two rooms are usually used for cooking and sleeping, respectively. As the dogtrot cabin is meant for areas with long summers, the primary concern is ventilation. Instead of a central heating source, the outermost side walls are each flanked with a chimney to heat the rooms individually. The rooms of a dogtrot cabin may have windows and usually doors that open into the central hallway; some have additional doors on the front or rear of the house. The dogtrot definition can be expanded to include two stories or one of the initial two rooms can be split into a main area with a small vestibule or storage room.[6] In the case of the Vann House, the second-floor rooms are presumed to have been for sleeping while the first-floor rooms were used as a dining room to the east and a parlor to the west.[7] The Vann House's first- and second-floor breezeways orient north to south. This choice may in part be because a large portion of the historical Cherokee Nation was north of the Vanns' property, but the home's direction also takes advantage of the fact that winds in Spring Place (the small community where the historic house is located) usually come from the north. Today, in a rejection of "open concept" designs that require strong HVAC (heating, ventilation, and air conditioning) systems to heat or cool large spaces, architects are creating smaller areas interspersed with exterior spaces in creative ways. For example, some designs inspired

The Vaughn Cabin, reconstructed at Red Top Mountain State Park in Georgia, is another beautiful example of a 19th-century dogtrot home. GEORGIA DEPARTMENT OF NATURAL RESOURCES

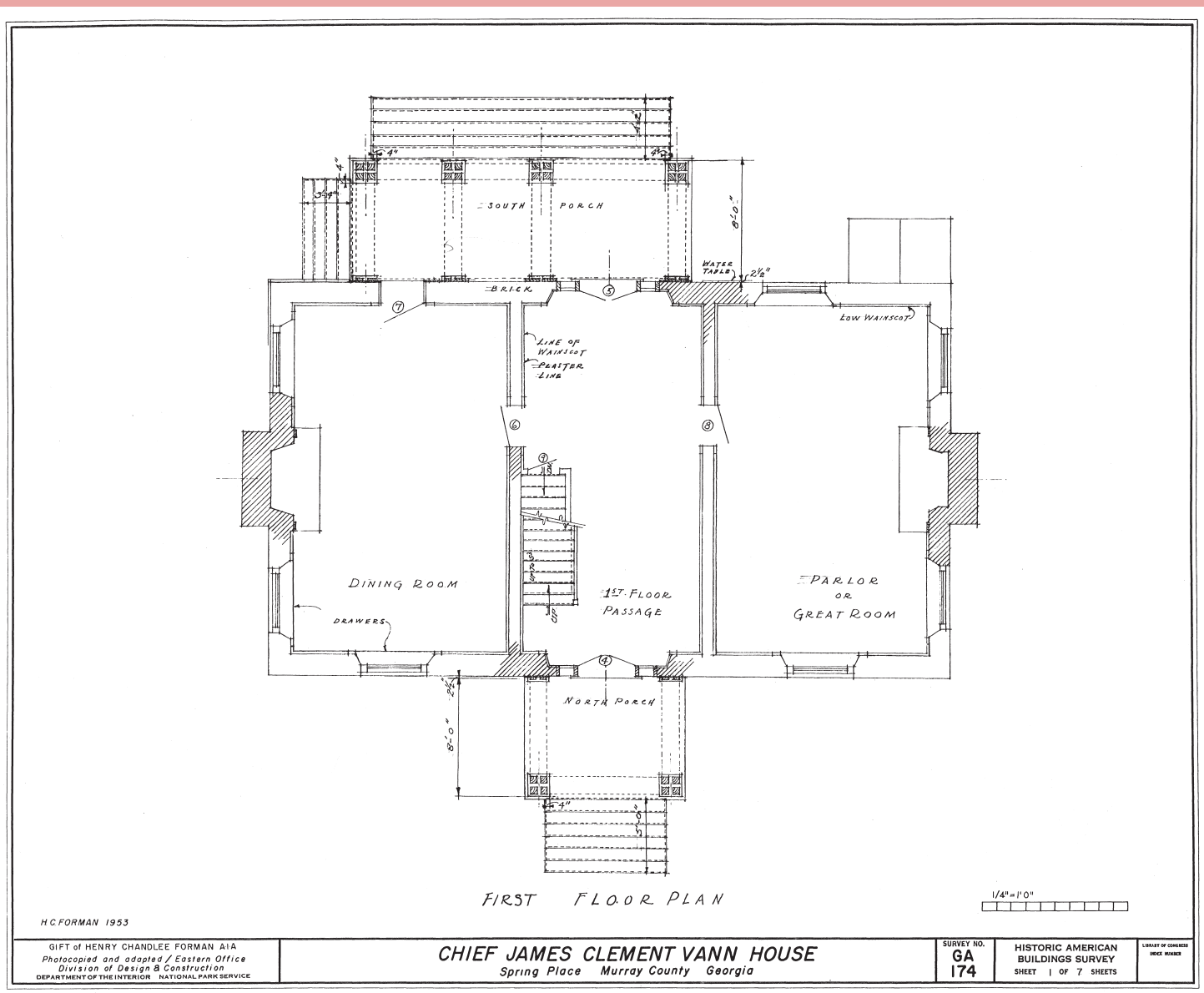


**FIGURE 2.** First floor plan (Forman, 1953). LIBRARY OF CONGRESS

by the vernacular dogtrot have introduced multiple breezeways into large homes.[8]

One reason the Vann House has lasted for centuries is its superior construction materials. Bricks hold and retain temperature far more than wood. Here, every wall, including the interior support walls, are two interlocking layers of brick crafted on site, most likely by the enslaved people. The front of the house can be identified by its lack of work entrances and its extravagant brick pattern, Flemish bond, compared to the south wall's American bond (described further below). Flemish bond is not only more elaborate and decorative, but a pattern that recent studies have shown to be weather resistant, with more flexibility of expanding and contracting with temperature extremes.[9] The back of the house sports two utility entrances, including a slave door and a door to the root cellar, a large space that occupies two separate rooms for food and other cool food and liquor storage.

The house features four brick bonds, most likely selected for both strength and insulation. When bricks are laid parallel to the face of the wall, with the longer rectangular side exposed, they are referred to as "stretchers"; alternatively, when bricks are laid perpendicular to the wall's face with the shorter side facing outwards, they are called "headers." A row of bricks running parallel to the ground is a "course."[10] The Vann House's two back walls face east and south and feature a five-course American bond (one course of headers for every five courses of stretchers) on the first floor and a seven-course American bond on the second floor, which still offers stability and insulation. The front

▲ Ranger Garner (author, right) discussing the Vanns' root cellar, both the known uses and the varied interpretation of the room over the years, April 12, 2023. LEAH S. GLASER

▶ The interior root cellar, a locked room once thought to be the Vanns' liquor storage.
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walls face north and west and entirely feature a Flemish bond brick pattern, including the western fireplace. This pattern, which is the most weather resistant, requires the most bricks to craft and alternates stretchers and headers on each course with staggered courses to create an intricate pattern. The two interior walls in the Vann House are plastered, but in the uncovered root cellar, the five-course American bond is visible.

True to dogtrot form, the Vann House features fireplaces in each room placed on the side walls, east and west respectively. These four fireplaces, one in each main room of the house, are modeled after Rumford fireplaces. Rumford fireplaces are tall and shallow to reflect more heat into the room, and they have streamlined throats to eliminate turbulence and carry away the smoke instead of the heated air.[11] Lacking cooking cranes (an extended iron bracket hinged to the outer edge of a fireplace that is used for hanging a small pot or kettle) and the necessary depth needed

to retain heat, it is evident that the fireboxes were not used for cooking. So where did food preparation take place? The 1953 archaeological report of the Vann House grounds identifies the remains of a building foundation likely used for cooking due to its close proximity to the house and, in particular, its distance of only 10 feet from the single door on the back wall of the Vann House that enters into the dining room, most likely used by enslaved people to work inside the home.[12] By cooking in a separate building, the house's temperature was further regulated. The original cookhouse, like all additional structures on the plantation, is now gone.

While the house's current windows are not original (they were installed during a 1950s restoration), they were modeled after the double-hung windows available to the more affluent members of 19th-century society, which included the Vanns. The windows are seven feet tall and four feet wide, and the originals were very likely double-hung to allow for airflow. Most rooms, save the dining room, feature four of these massive windows, allowing for full ventilation. When combined with the home's 12-foot ceilings, one can see how well air would pass through a room. Additionally, the house's open, winding staircase acts as a heat funnel allowing hot air to circulate up and out of the main floors, especially when a set of doors is open on the first floors to create a vacuum.

Today, popular articles feature many architecture firms across the globe for their efforts to retain elements such as dogtrot breezeways, as desired for both their nostalgic charm and eco-friendly ways. In Austin, Texas, LaRue Architects and Britt Design Group renovated a 1950s cabin into a dogtrot. By combining the original cabin with its modest add-on under a communal roof and improving the structure, they were able to incorporate the benefits of a dogtrot while still reflecting a true cabin look.[13] Furthermore, dogtrot breezeways are not just for

Rumsford fireplaces, a shallow design utilized to draw smoke out of the room while reflecting heat out into the room. While these smaller fireplaces are less effective for cooking, the Vanns' wealth allowed them to build a separate building for their enslaved Africans to work from, which helped regulate the temperature of the main house .

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restorations. In Washington state, SHED Architecture and Design built the Whidbey Dogtrot house, a single story, cedar-sided home that offers the benefits of this historic design.[14] SHED architects promote their love of historic building restoration, saying "[we] appreciate the lessons that can accompany work on older buildings, and we often incorporate these lessons into our designs."[15]

Unfortunately, most modern homes do not feature many of the aesthetic and energy-efficient details that contribute to the uniqueness and charm represented in the Vann house. Air conditioning has made porches and deep eaves no longer necessary to keep the house's occupants cool. The high ceilings that allowed hot air to rise above the room's occupants made it difficult to regulate the temperature of machine-generated warm and cool air. Center hallways that served as breezeways to allow for cross breezes have become less common. Today, many homes and buildings do not account for natural airflow, local climate, or even the albedo of non-reflective surfaces. This is not to say that artificial climate control is inherently bad, but, when the source of electric power is fossil fuels, energy production comes with mining practices that poison freshwater and release carbon monoxide and hazardous chemicals. Similarly, hydropower dams negatively affect animal habitats and downstream water health.

To help battle carbon emissions, reduce construction waste, and save money, the Federal Historic Preservation Tax Incentive Program, administered by the National Park Service (NPS) and the Internal Revenue Service in partnership with State Historic Preservation Offices, offers developers, and in some states, homeowners, the opportunity to earn tax credits by restoring old homes.[16] The mission of the United States Green Building Council, a private-sector organization that created the LEED (Leadership in Energy and Environment Design) building rating system, is "to scale actions that advance building decarbonization, enhance community resilience, restore ecosystems, and improve occupant well-being."[17] In studies recently published by NPS, historic rehabilitation projects in fiscal year 2022 totaled "$7.3 billion in private investments, contributing more than $13.7 billion in output in goods and services to the United States economy, generated approximately 122,000 jobs, and added an overall $7 billion in gross domestic product (GDP)."

The Vann House site's dual shift in interpretation—to include the experiences of enslaved people, and call attention to historical energy-efficient building design—opens a treasure trove of narratives and stories that were almost lost to American history, to the detriment of our society. When recognizing the craftsmanship and accomplishments that the working classes or enslaved people brought to these plantation homes, visitors are offered the chance to empathize with and humanize these previously under-appreciated individuals. Enslaved peoples and Native Americans alike were woodworkers, brickmakers, and blacksmiths who honed skills that can still be seen today in homes like the Vann House. In the field of historic preservation, physical places can therefore convey cultural ideas in concrete ways where even the most persuasive arguments might not.

By including the innovative building methods used in the creation of the Vann House, rangers hope to find another way to help guests hear the voices of the past and learn from them. According to NPS, "traditional materials are generally durable, the continued maintenance of historic buildings and features relies on local craftsmen rather than replacement parts, and these structures generally make up the heart of our towns and cities."[18] The Chief Vann House is a physical, architectural example of Cherokee assimilation, something that was heavily denied by politicians of the day, seeking to exploit the resources of Indian lands. Throughout American history, legislation censored Native American dances, stories, lifestyles, and even spoken language. By distancing Indigenous Peoples from their own accomplishments and ancestral legacy, we deny their ability to distinguish themselves in the modern world. Incorporating a discussion of sustainable energy into the Chief Vann House interpretation might provide an appreciation for Indigenous practices that demonstrate resilience through cultural adaptations and innovations.

## ENDNOTES


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