

COMMON Ground



PRESERVING OUR NATION'S HERITAGE WINTER 2004

A sepia-toned photograph of a long wooden covered bridge spanning a stream. The bridge has a corrugated metal roof and vertical wooden siding. The stream flows over rocks in the foreground, and trees are visible on the banks. The bridge is the central focus of the image.

SPANNING AMERICA

The Historic American Engineering Record Documents a Legacy of Covered Bridges

Bridges from the Past

| BY SENATOR JIM JEFFORDS |

IN 1837, THE PEOPLE OF PITTSFORD, VERMONT, contracted 19-year-old Nichols Powers to build a bridge over Otter Creek. Due to his youth, the town demanded that his father agree to pay for any wasted materials. Young Powers silenced the critics when the bridge went up without a flaw and without wasting any of the valuable timber. The bridge remained there for 94 years. The only reason it went down was because Pittsford decided a modern metal bridge would be safer. Yet some said the bridge was as strong that day as the day it was built, especially after seeing that it supported the 20-ton machine that helped to demolish it. **POWERS WENT ON TO BECOME** one of the greatest builders of wooden bridges that the world has ever known. He built hundreds of covered bridges from Maine to Maryland, and at one time held claim to the majority in New York and New England. **MAYBE HIS GREATEST ACCOMPLISHMENT** was the two-lane Blenheim Bridge in New York, originally labeled Powers' Folly. Few believed the 210-foot span would handle its own weight, let alone traffic. Before removing the scaffold that supported the bridge during construction, Powers stood in the middle shouting, "If she goes, I'll go with her!" The bridge handled daily traffic until the 1930s. It remains a landmark, one of the longest single-span wooden bridges in the world. **UNFORTUNATELY, CONSIDERING WHAT** Powers went on to accomplish, few people recognize his name outside the small community in which he began his career. Many of our covered bridges are suffering the same fate. Where once thousands of bridges spanned our nation's waterways, today fewer than 800 survive. **WITHOUT PROPER MAINTENANCE,** accurate information, or sufficient resources, we may lose the few remaining covered bridges. Caring for these national treasures is beyond the capacity of the towns and counties that own them. Diminished collective knowledge and general distrust of covered bridge dynamics have caused other problems. Ironically, even today a covered bridge can be more appropriate than its steel counterpart. Anyone whose car has lived through the New England winter knows what

salt does to metal, but salt has little effect on wood. The only thing that weakens wood is moisture, and safe beneath their vaulted roofs, many covered bridges have lasted more than 150 years. **TO PROTECT THESE VALUED LANDMARKS,** I introduced the National Covered Bridge Preservation Act in 1998. This legislation, which became law that year, directs the Secretary of Transportation to maintain a list of historic covered bridges, develop education and history programs, and

// Covered bridges are not simply relics of the past, they are majestic symbols of our rural history. And in the midst of our busy, frantic lives, they are reminders of a simpler time, of an era we must preserve and remember. //

research the most appropriate techniques for protecting covered bridges. Since the passage of that legislation, more than \$18 million has been spent to preserve these national treasures. **THE FUNDS HAVE GIVEN** states, historic communities, and preservationists the means to protect this legacy. Covered bridges are not simply relics of the past, they are majestic symbols of our rural history. And in the midst of our busy, frantic lives, they are reminders of a simpler time, of an era we must preserve and remember.

Senator Jim Jeffords has represented Vermont in the U.S. Congress since 1974. Elected to the House of Representatives that year, he won his Senate seat in 1988. He is the ranking member of the Senate Environment and Public Works Committee and serves on the Senate Finance, Veterans' Affairs, and Health, Education, Labor, and Pensions Committees. He also serves on the Senate Special Committee on Aging.



WALTER SMALLING, JR./NPS/HABS

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Above: Savannah vernacular. Since architects work in the stylistic conventions of their time, some vernacular architecture is "architect designed," blending local forms with widely disseminated design motifs.

Cover: Neal Lane Bridge, Douglas County, Oregon.

JET LOWE/NPS/HAER

National Park Service Studies One of the First Interstates

In 1913, a group of industrial barons drove out of Indianapolis, following the primitive byways and backroads to the Pacific. Their goal: choose a route for one of the nation's first paved transcontinental highways. That expedition—led by Carl Fisher, chief of the Prest-O-Lite headlight company—included executives from the automobile, tire, and cement industries. Their vision culminated in the 3,300-mile-long Lincoln Highway, starting in New York's Times Square and ending in downtown San Francisco. Long before the legendary Route 66, the first Chryslers, Packards, and Model Ts clattered down Route 40, which played a pivotal role in how the automobile influenced American life in the 20th century.

Nearly a century later, the National Park Service has released a congressionally authorized special resource study on preserving and commemorating the highway. Over three years, a team of historians, architects, preservationists, and geographers evaluated the highway as a historic entity—and potential park unit—identifying how what remains expresses the era of early automobile travel. The route, which seeded a thriving roadside culture, was a venue for innovative ways to market gas, food, and lodging by way of bold graphics and architecture. The role of the early auto executives foreshadowed the later relationship between the car industry and highway construction. On the eve of



Above: Between Stockton and Livermore, California. Right top: Near Joliet, Illinois, 1915. Right bottom: Wilson Bridge over Conococheague Creek, Maryland, in operation until 1937; Cook County, west of Chicago, 1918.

World War I, most roads were unpaved and disorganized. Cross-country car travel was almost unheard of. Carl Fisher and his associates, foreseeing the rise in the number of auto owners, formed the Lincoln Highway Association to collect private funds and promote the idea. As their businesses prospered, they started a highway network, preceding by more than a decade any notion of a federal interstate system. In short order, Route 40 was the nation's major cross-country route and a lab for new kinds of roads and bridges.

"Americans readily viewed the Lincoln Highway as the modern equivalent of the Oregon Trail or the transcontinental railroad, facilitating long distance travel and exploration at one's own pace," says the study. The highway represented the American landscape in transition, at the twilight of the railroad and the dawn of the automobile.

Most of the original route's context has gone the way of history, researchers say, negating its eligibility for the National Park System. Still, much remains. The study's proposed alternative is to form a nonprofit organization (or appoint an existing one) to develop preservation grants, interpretive exhibits, and travel itineraries. The National Park Service could offer financial and technical support. Congress will decide on a final course of action.

The Federal Highway Administration and the Organization of American Historians (represented by Kevin Patrick of Indiana University of Pennsylvania) cooperated in the study. The report is online at www.nps.gov/mwro/lincolnhighway.

For more information, contact Ruth Heikkinen, National Park Service, Midwest Regional Office, 601 Riverfront Drive, Omaha, NE 68102, (402) 661-1846, email ruth_heikkinen@nps.gov.

WRIGHT AWARD FOR COMMON GROUND

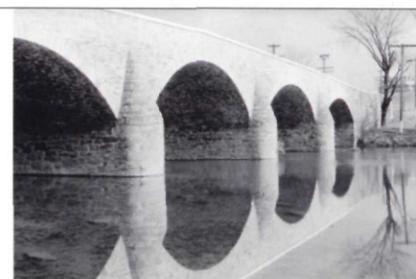
Common Ground has won the George Wright Society's 2005 communications award.

The nonprofit society, with professionals from an array of preservation fields, gives the award "to recognize outstanding efforts in communicating highly technical or controversial park-related subjects to the public in a clear and understandable manner."

Through its journal, the George Wright Forum, the society strives to encourage critical thinking on matters related to protected natural and cultural areas.

The society gives awards in other categories as well, and winners of all 2005 awards will be recognized at the society's biennial meeting in Philadelphia in March. Editor David Andrews will accept the award on behalf of the magazine.

Visit the George Wright Society on the web at www.georgewright.org.



ALL PHOTOS: UNIVERSITY OF MICHIGAN LINCOLN HIGHWAY DIGITAL IMAGE COLLECTION EXCEPT AS NOTED

NPS/HABS

YELLOWSTONE NATIONAL PARK



In Yellowstone's Attic

Park Builds New Museum for Five-Million-Artifact Collection

As the first national park and one of the country's crown jewels, Yellowstone long ago achieved icon status. As further evidence of its stature, a new 32,000-square-foot museum and research center was completed this summer to accommodate the park's enormous collection of artifacts, records, and memorabilia. The \$6.1 million Yellowstone Heritage and Research Center, near the north entrance, provides not only facilities for storage, but space for the hundreds of researchers who come to study park resources every year.

Until recently, some five million items were shoehorned into a visitor center basement—archives, biological specimens, rare books, correspondence, fossils, old ranger uniforms, maps, stuffed birds, and other items. The new three-story facility provides about five times the storage plus the opportunity for the public to get a glimpse of the collection. Construction was funded in part by a contribution from a nonprofit partner, the Yellowstone Foundation.

The research area is designed with plenty of light and table space, and the lobby has ample room for exhibits. When the center opens in the spring, one of the first items displayed will be a stagecoach used for park transport in days long past.

The collection dates to Yellowstone's opening in 1872. Over the years, curators have accumulated what one local newspaper describes as "mind-boggling amounts of delightful miscellany"—stickers, scrapbooks from family vacations, knickknacks of all stripes.

The facility allows for inevitable growth. Recently, the park acquired the Susan and Jack Davis Collection, the most complete private holding of Yellowstone memorabilia. The Davises began gathering material in the 1950s, and the collection now numbers over 20,000 items: advertising, historic photographs, stereoviews, menus, decals, and furniture.

While the building was under construction, staff documented every item in the collection. The site chosen by the National Park Service—formerly a gravel pit and rail yard—meant that the project would not destroy an untouched landscape. The new center was built according to strict NPS curation guidelines, with temperature and humidity controls, thick firewalls, and a state-of-the-art security system. For its extensive collection of documents, the center conforms with standards set by the National Archives.

The Yellowstone Heritage and Research Center is expected to accommodate another 25 years of collecting. Says Yellowstone's Maria Copozzi, "People will send us things—sometimes anonymously through the mail. Old people send us things they got when they were here in the 1930s or when they were five or six. They really want the park to have them."

For more information, contact Colleen Curry, Yellowstone Heritage and Research Center, 200 Old Yellowstone Trail, Gardiner, MT 59030, (307) 344-2262, email colleen_curry@nps.gov, www.nps.gov/yell.

Lessons in History New Online Teaching Tools Feature Trail of Tears, Industrial Revolution, Liberty Ships

Three new offerings are available in the National Park Service Teaching with Historic Places series, classroom-ready aids that use National Register properties and national historic landmarks to instruct school children in grades 5 to 12.

In **Trail of Tears: The Forced Relocation of the Cherokee Nation**, students see, in a single event, the effect of westward expansion on native populations. Maps of ances-

tral Cherokee lands, images, and readings offer a portrait of 1830s America. The lesson draws from research on the Trail of Tears National Historic Trail and National Register properties along the route.

One of the nation's finest concert halls introduces students to the realities of the Industrial Revolution. **Mechanics Hall: A Symbol of Pride and Industry** illustrates the transformation of New England's

Blackstone River Valley, today a national heritage corridor. The hall, a National Register property in Worcester, Massachusetts, was built in 1857 by a mechanics' union to entertain and educate the city's industrial workers. Worcester was a manufacturing center and activist hotbed; some of the 19th century's major figures spoke there, including Charles Dickens and Susan B. Anthony.

BELOW: U.S. MARITIME COMMISSION

Liberty ship at sea.



Students experience the World War II struggle for survival in **Liberty Ships and Victory Ships: America's Lifeline in War**. The lesson plan taps research to establish the national significance of several surviving vessels. Students get a sense of the difficulties that geography posed in the campaign to supply the Allies; extensive information is provided on ships berthed in San Francisco, Baltimore, Tampa, Los Angeles, and elsewhere. An activities component equips students to interview people in their communities who worked on the home front.

The series now has over 100 plans; to help teachers with their educational goals, the National Park Service recently grouped them according to the curriculum standards of the National Council for the Social Studies. The 10-categories distinguish among aspects of social studies such as culture, technology, governance, and civic ideals.

For more information on Teaching with Historic Places, go to www.cr.nps.gov/nr/twhp.

TREND

LINE

CHANGING VERNACULAR

A Talk with Thomas Carter, President of Vernacular Architecture Forum

Interviewed by Catherine Lavoie of the Historic American Buildings Survey and Beth Savage of the National Register of Historic Places

Vernacular Architecture Forum, now in its 25th year, has been instrumental in defining what constitutes historical significance. VAF is both an organization and a discussion group, says forum president Thomas Carter, associate professor of architectural history at the University of Utah and director of its College of Architecture and Planning's Western Regional Architecture Program. "Our meetings immerse members in vernacular environments of all kinds, old-timey and up-to-date. We fight the misperception that we're only about the rural and the pre-industrial." The forums are like "conversations," he adds. "We tour, we talk, look at buildings, give lectures, experience the landscape of the meeting site. We interact with the place. We're in Tucson next, then New York, probably going to the Lower East Side and Harlem. Vernacular architecture comes in many forms, from subway stations to skyscrapers to the enduring row house." Here Carter reflects on the past and future on the occasion of VAF's anniversary.

Right and opposite: Savannah's porches. Regional variation is a hallmark of vernacular architecture.



"A SOUTHERN PLANTATION IS MORE THAN A BIG HOUSE; IT'S ALSO THE SLAVE QUARTERS, THE WORK AREAS, AND EVEN THE FARAWAY MARKETS. THE STUDY OF VERNACULAR ARCHITECTURE IS REALLY A CULTURAL LANDSCAPE APPROACH TO THE BUILT ENVIRONMENT—ONE THAT STARTS WITH COMMON BUILDINGS BUT INCLUDES THE ENTIRE COMMUNITY OF BUILDINGS."

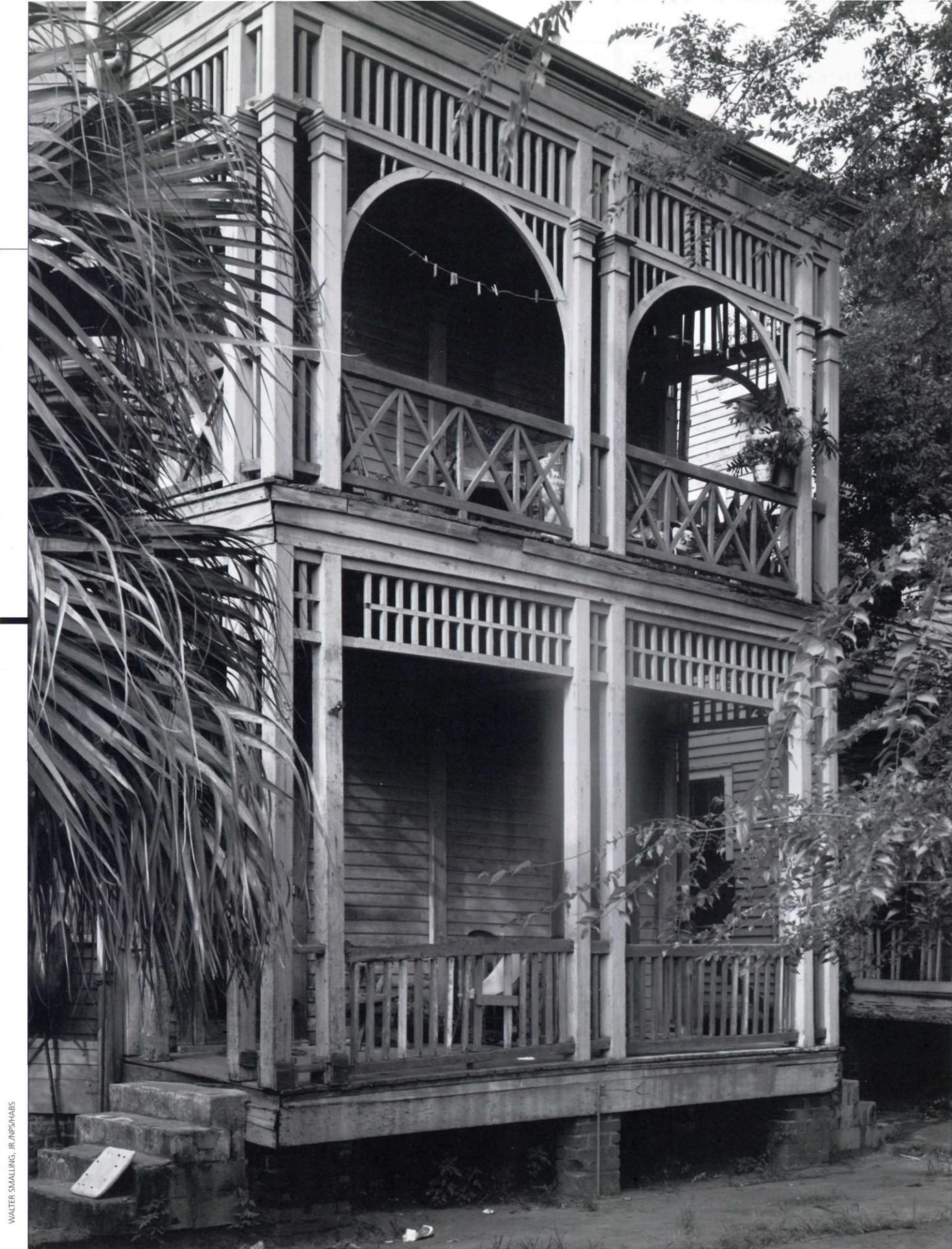
Q: Can you talk a bit about the state of vernacular architecture studies today?

A: It's in transition, I believe, with some self-esteem problems. Folklore, my original discipline, went through a similar stage. It started out as this grassroots movement, to bring the common people into the discourse. Then it came to be seen as backward looking, cut off from the mainstream, essentially irrelevant to the contemporary discussion. So the folklorists decided, okay, we'll broaden our appeal. We'll study all kinds of behaviors, not just traditional behavior. And the field lost its identity. What's a folklorist? The American Folklore Society just met here in Salt Lake City and I didn't recognize very many of the topics. It was really a meeting about popular everyday culture, which is fine, but it makes it hard to define the field as folklore.

Anyway, that's where the forum is right now. On the one hand we don't want to be marginalized into the "pre-industrial" camp. On the other we don't want to give up who we are, our identity. I'm always worrying, and maybe for nothing. But I do think we're facing a time of change in the field and the organization.

Q: Actually, you seem pretty well grounded in both the old and the new. How is vernacular architecture defined, traditionally speaking?

A: Vernacular architecture is a thing and a field, a type of architecture and an area of study with a very specific research method. It's not something you can define simply. Today, we use the definition from Eric Mercer's *English Vernacular Houses*, published in the 1970s: the common architecture at a given place and time. But that opens up a series of issues.



WALTER SMALLING, JR./AP/WIDEWORLD

A life expressed in structures. Below left: St. Stephen's Slovak Catholic Church and surrounding neighborhood in Johnstown, Pennsylvania's Cambria City historic district. Center: Houses in Cambria for employees of the local iron company. Mill towns, like other architectural communities, consist of many kinds of buildings; vernacular research often centers on spatial and stylistic comparisons of workplaces, manager and worker housing, and religious, recreational, commercial, and public centers. Top right: Ward Avenue United Presbyterian Church in Altoona, Pennsylvania. Bottom right: Lleswyn Station, at one time the Altoona stop on the electric railway.

LEFT AND CENTER: JET LOWE/NPS/HABS; BELOW: DAVID AMES/NPS/HABS



The first, of course, is that you have to clarify what you mean by common. We're always fighting with this idea of the ordinary versus the extraordinary. "Common" is better because it has a numerical connotation. "Common" as it relates to a community. Not ordinary in appearance, but encountered frequently.

And as part of that idea you have to deal with boundaries. You say these are the common buildings. But then you say, well, when and where? In the 1860s, a highly decorated, asymmetrical Victorian building would be eccentric and novel, very different, very avant garde. You'd walk down the street and go wow, what's that? Because most buildings were neoclassical and symmetrical. By the 1880s, the Victorian was incredibly common, found all over. It was the new vernacular, the new language.

Why do buildings become common? Because they are good solutions for people. People make decisions about certain forms and layouts. These choices get repeated. So there's a pattern of behavior that surfaces in a pattern of building. And that's the second part of the definition. You have a strong, visible community identity, a connection between buildings, people, and place.

The third part of the definition centers on the basic goal of vernacular architecture studies, which is understanding communities

through their buildings. To understand what's common in a community, however, you also have to understand what's uncommon. And this brings me to the fourth part: context. What are the differences between, let's say, vernacular buildings and high-style buildings? You must look at them together, in relationship. For example, a southern plantation is more than a big house; it's also the slave quarters, the work areas, and even the faraway markets. The study of vernacular architecture is really a cultural landscape approach to the built environment—one that starts with common buildings but includes the entire community of buildings.

Q: Has your perception gotten highly sensitized over time? Do you immediately see the patterns in a town you've never been before?

A: Yes, indeed. I mean, that's what so wonderful about this approach. You can go into any community with it. And your geographical area doesn't have to be a town. It could be all the Quaker meetinghouses on the eastern seaboard. So yes, I'm highly sensitized. In fact, sometimes I get locked into it.

In every community, I look first for the big houses. Then I look for a collection of buildings that all look the same. Then I look for the work zones, the commercial zones. I start seeing things as collec-

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tions of interrelated buildings, which is the key to getting beyond descriptive representation. You see a part of town with all the mansions, then down by the tracks a bunch of small houses. You start wondering, who's working for whom? What are the sources of income? It opens up a sea of questions.

Q: Does the forum endorse any particular methods of documentation?

A: The method speaks to the need for a lot of fieldwork. I often say to my students, "We're studying buildings that haven't been studied before. We can't do that in a library." The technique is almost archeological. That means going into the field. That's easy for some and hard for others.

Obviously, you can get to architecture in a lot of ways. I stress fieldwork in my program, but it's mostly because in the West so little is known, there are all these

buildings that no one's studied. Buildings are interesting and we're drawn to them. But they're engines of culture too. Our main concern is using buildings to get to ideas, to get to the intentions of the people who produced them. For me, that's the essence of the field. We're interested in common people, the people who left few records accessible through statistics and the census and things like that. We're interested in what buildings tell us about ordinary, everyday life.

Of course, there's always the danger of connoisseurship, where you document well, but all you do is differentiate between the authentic and the non-authentic, the real and the remodeled. Your investigation ends there. We go beyond that. I probably didn't answer your question.

Q: It answers the question in part. But it's a good segue. What prompted the creation of the forum 25 years ago?

A: The forum grew out of the populist movement of the 1960s and '70s, which was pervasive in American studies, a reaction to the fact that traditional history had left most people out. Where are the women? Where are the African Americans? You saw a groundswell of interest in ordinary life and it dribbled over into architecture.

A second impetus was the publicly funded preservation surveys, which truly opened up the world of vernacular architecture.

Q: Financial support was a big issue. You've got to pay the rent, right?

A: That was the thing. It's astounding how many of the early forum members were working in preservation jobs. Across the country, survey money from the federal Historic Preservation Fund was channeled into state historic preservation offices. A lot of young architectural historians, or folklorists pretending to be architectural historians like myself, got hired for survey work. Really, that's how



“ANTHONY KING AND OTHER SCHOLARS HAVE LOOKED AT GLOBALIZATION AS IT RELATES TO COLONIALISM. MY RANCHING STUDY FITS THIS MODEL, AS IT RAISES THE QUESTION OF VIEWING THE WEST AS AN AMERICAN COLONY. MY POINT IS THAT, IF YOU GET BEYOND THE BUILDINGS AND THE HIERARCHIES OF SPACE, WHICH ARE EVERYWHERE, IT OPENS UP A LARGER DISCOURSE.”

Below and opposite: Function and fancy on the frontier. Buildings in Alaska's Skagway historic district convey both the freedom and the hard reality of the Gold Rush experience.



ABOVE AND LEFT: JET LOWE/NPS/HABS

most of the fieldwork was done. I think many people are still writing from that research, their careers still based on it. In 1980, of course, the survey money disappeared.

For awhile, though, there was a wonderful synergy between this interest in common things and all of a sudden people getting paid to go out and look at them. What I find amazing is that when we got out there nobody knew what to do. We looked at the survey handbooks and none of the buildings were in it. So we formed our own typologies. Ultimately, many of the surveyors went into the academy. As soon as they did that, they got stuck in their office grading papers.

Today, something is missing. Preservation surveys have largely been taken over by cultural resource management companies. Now it's just a job. There's not the engagement with the academic part that there once was.

Q: It's a factor of outsourcing. It's become production work.

A: Yeah, the spirit is just not there. It's been institutionalized.

Q: Was the forum launched in reaction to the Society of Architectural Historians? How would you compare the missions of the two organizations?

A: Well, these oppositions aren't necessarily good for the field. But, looking back, within the larger world of architectural history there was little interest in this material, in what wasn't monumental or connected with a well-known architect. Basically people were out there looking at this ordinary stuff and had no place to talk about it. The forum came in response to that need. The society has changed considerably, and I think that has a lot to do with the forum's work. You know, we opened them up, and the National Register of Historic Places too, to buildings of all kinds.

Q: One of the forum's founding members suggested recently that perhaps the group may have outlived its usefulness, a victim of its own success. Do you agree with that assessment?

A: No. We may need a transfusion of energy. After a period of time, every group needs to reassess its direction.

We might lack a little bit of the original vigor, but like I said, you don't want to lose your identity. I don't think we want to abandon our commitment to common places. We do have to embrace the realities of globalization, and try to see how the North American vernacular fits into the larger economic and cultural framework. And we should push beyond looking at individual buildings, stop isolating parts of the landscape, and use the new theories so important in archeology and literary criticism. The postmodern movement really has not penetrated our organization. There's all of this other stuff going on out there and we should be part of it, not just rest on our laurels.

For instance, I've been studying corporately owned cattle ranches in Nevada. There's a hierarchy on the ranch among management, horse work—cowboys, buckaroos—and ranch work—the haying and the irrigating. There's segregation in the architecture. The different groups live in different parts of the ranch and in different grades of houses. The order goes from management, to buckaroos, to field hands. And you can't ignore the fact that the owner lives in San Francisco in a house on Nob Hill. He owns two million acres in northern Nevada—which are run by a manager.

Anthony King and other scholars have looked at globalization as it relates to colonialism. My ranching study fits this model, as it raises the question of viewing the West as an American colony. My point is that, if you get beyond the buildings and the hierarchies of space, which are everywhere, it opens up a larger discourse.

We need to make sure that we don't have blinders on to other aspects of the world. Common buildings are common because they're part of communities. To see the community values, we need to see them in relationship to the overall cultural system.

Q: Closing comments?

A: We've gotten very good at what we do, but the passion needs to be rekindled. We need to plug into the larger movement of studies of everyday life. We're in danger of falling into the antiquarian tradition we reacted against. We want to celebrate our past, not be bound by it. Yet I fear we're becoming the establishment. Isn't that ironic? I took this presidency job because I thought I could cause trouble. I'm smart enough to undo things, but not to do them up again. I'm counting on my friends to help me.

Catherine Lavoie and Beth Savage are on the board of directors of Vernacular Architecture Forum. For more information, contact Vernacular Architecture Forum, c/o Gabrielle Lanier, P.O. Box 1511, Harrisonburg, VA 22803-1511, www.vernaculararchitectureforum.org.

L'hermitage plantation

Investigating a Landscape of Pain at Monocacy National Battlefield by Joe Baker

The young man takes a break from his excavation to show me what he's found. He takes a pull from a water bottle, then gently empties the contents of a brown paper bag on the top of an overturned plastic bucket. Taken together, the objects are singularly unimpressive. Brick fragments, hand-wrought nails, buttons, glass, crockery, the ordinary detritus of the late 18th and early 19th centuries here in the foothills of the Maryland Blue Ridge. Yet looks can be deceiving. The humble items are part of one of the more significant archeological collections in the Middle Atlantic, the evidence of important and surprising events. These things were left here by one of the largest populations of enslaved people in this part of antebellum Maryland.

Below: A Caribbean-style plantation in the Maryland piedmont.

ALL PHOTOS DAVID ANDREWS/NPS EXCEPT AS NOTED



“As the work progressed . . . the chain of historic documents and land ownership records led surprised researchers worlds away from the Monocacy valley.”

MONOCACY NATIONAL BATTLEFIELD, ON THE SOUTHERN OUTSKIRTS of Frederick, commemorates an encounter during the last incursion of the Confederate Army into the North in 1864. The battlefield was established by Congress in 1934, but land acquisition didn't begin until the 1980s. By then it was obvious that accelerating development was threatening the landscape. Currently, the battlefield preserves approximately 1,650 acres in federal ownership or easement.

Among the final acquisitions was the 274-acre Best Farm in 1993. Named for tenant farmer John Best, who lived here in the mid-19th century, the farm saw action on July 9, 1864, as the forces of Confederate General Jubal Early clashed with Union troops under the command of General Lew Wallace. The engagement was limited in size, but extremely important. While the Confederates carried the day, Wallace's spirited defense enabled reinforcements to arrive and prevent Early from attacking Washington.

Preservation law mandates that federal agencies inventory their historic sites and structures, and plan for their care. In 2001, Monocacy began to survey and inventory sites through a partnership that included the National Park Service National Capital Region Archeology Program and the University of Maryland Center for Heritage Resource Studies. As the work progressed at Best Farm, the chain of historic documents and land ownership records led surprised researchers worlds away from the Monocacy valley.

My visit with Joy Beasley, an archeologist and Monocacy's cultural resources program manager, begins in a field office where she and her crew of three archeologists are just finishing lunch. Joy has been directing the inventories since they began. Before our visit to the excavations, she introduces me to the farm's curious past.

“Best Farm has been occupied for a long time. We actually have a couple of prehistoric sites on the property,” Joy says. The Native American encampments document the earliest settlement of the area literally millennia ago. Euro-Americans reached the valley in the mid-18th century, with tracts surveyed and sold shortly thereafter.

The settlers were primarily from two places. German farmers came south from Pennsylvania, while Scots-Irish immigrants arrived through the port of Baltimore and struck out for arable land to the west. Both waves brought an agricultural tradition based on mostly modest-sized farms that produced cereal crops, livestock, fruit trees, vegetables, and some tobacco. This mixed farming, typical of the Piedmont and Appalachian regions of the middle and upper South, was distinct from the large-scale



Clockwise from left: Buttons from the slave village; excavating the site; the University of Maryland's Mark Gallagher sifts for artifacts.

plantation agriculture of the coastal areas, deep South, and Caribbean, which relied on single cash crops like cotton, rice, tobacco, and sugar, and on large numbers of enslaved Africans.

In Maryland, substantial populations of enslaved people labored on the big Eastern Shore plantations along the Chesapeake Bay, where the economics of tobacco made large-scale slavery profitable. Big industries, especially iron furnaces, also employed significant numbers. In the more modest and diverse agricultural operations of the Monocacy River valley, slavery

was a smaller-scale proposition, and was far from universal. Many farmers in central and western Maryland had religious or moral objections, or simply couldn't afford slaves. This difference of opinion contributed to Maryland's divided loyalties during the Civil War.

Joy paints a picture of mostly small, mixed economy farms along the Monocacy south of Frederick, a generally homogeneous and self-contained little world at the end of the 18th century. “This was a pretty typical slice of the Maryland piedmont, until the arrival of the Vincendières,” she says.

TOP, ABOVE LEFT AND RIGHT: © KATHERINE FREY



Left: Stonework of the Vincendière barn—a hybrid of local and French Caribbean architecture—with farm fields beyond and expanding Frederick just past the treeline.

Joy explains that many things about Boisneuf and the Vincendières are poorly understood, and difficult or impossible to reconstruct from the historical record. “For example, the exact nature of Boisneuf’s and Madame Vincendière’s relationship is unclear,” she says. He may have been her husband’s cousin, but Etienne de la Vincendière lived in Charleston, never visited L’Hermitage, and did not treat her with much tenderness in his will. There appears to be some chance that Etienne did not father Marguerite’s last child, Hélène. This raises the possibility that Boisneuf and Madame Vincendière were romantically linked, although that’s impossible to confirm.

Most of the property was bought and held in the name of Victoire de la Vincendière. There are few 18th- or 19th-century precedents for an eldest daughter as the head of a household, but official records give the impression that this formidable and independent young woman was the owner of holdings that eventually grew to about 1,000 acres. That said, court records contain complaints and judgments against Payen de Boisneuf for failure to cover his debts, so it’s possible he put property in Victoire’s name to hide it from creditors.

Despite these unresolved and sometimes conflicting pictures of the owners of L’Hermitage, one fact is not in dispute. The Vincendières arrived with 12 slaves from Saint-Domingue. They began acquiring more as their land holdings grew, and by 1800 they owned 90 people, all in Victoire’s name, making them one of the largest slave owners in central Maryland.

The late 1700s were not kind to the French aristocracy. The revolution and reign of terror led to the loss of titles, land, and, in many cases, life for the nobility. In 1791, émigré aristocrats in the Caribbean colony of Saint-Domingue (modern Haiti) were swept up in a full-blown revolt by the island’s thousands of enslaved people. The revolt, sparked in part by freed Saint-Dominguans who had participated in the American Revolution or in the later revolution in France, soon overwhelmed the plantation owners. As a result, a great wave of expatriate aristocrats emigrated to the United States.

Among the arrivals in the port of Baltimore in 1793 were Madame Marguerite Magnan de la Vincendière and most or all of her 10 children, including her 16-year-old unmarried daughter Victoire. Arriving with them was one Jean Payen de Boisneuf.

Boisneuf and the Vincendières were Saint-Dominguan planters, but the historical record is not entirely clear on their point of origin. They may have arrived directly from Saint-Domingue or from Paris. There may have been a familial connection between Boisneuf and Madame Vincendière (he may have been a cousin to Etienne de la Vincendière, her husband), but whatever their personal connection, historical documents indicate that they began acquiring land near Frederick in 1794 and 1795, eventually amassing some 748 acres at what is now Best Farm. They called the place L’Hermitage.

They erected a small house, then a larger house, and an impressive stone barn. These structures, all still standing, are an architectural hybrid of French Caribbean colonial and the local German and Scots-Irish vernacular.

Right: The plantation owners’ second residence, with subsequent additions.



Joy pulls a research manuscript from a bookshelf. One chapter, produced by Sara Rivers, a graduate student at the University of Maryland, summarizes what is known about the history of L'Hermitage and the Vincendières. "Sara actually came across an eyewitness account of the slave village at L'Hermitage," Joy says. "It's from a journal kept by a Polish writer and diplomat named Julian Niemcewicz in 1798. He was traveling by carriage from Washington up to Frederick, and was sitting up on the buckboard with the driver when he passed by L'Hermitage, so he got a good look at everything, including what we interpret as a reference to the slave compound." She opens the manuscript and begins to read: "Four miles from the town we forded the river . . . On its banks one can see a row of wooden houses and one stone house with the upper storeys painted white. This is the residence of a Frenchman called Payant, who left San Domingo with a substantial sum and with it bought two or three thousand acres of land and a few hundred negroes whom he treats with the greatest tyranny. One can see on the home farm instruments of torture, stocks, wooden horses, whips, etc. Two or three negroes, crippled with torture have brought legal action against him, but the matter has not yet been settled. This man is 60 years old, without children or relatives; he keeps an old French woman with two daughters; she, in sweetness of humor, even surpasses him. This charming group has caused about 50 legal actions to be brought. They foam with rage, beat the negroes, complain and fight with each other. In these ways does this man use his wealth, and comforts his life in its descent toward the grave."

Joy closes the volume. Save for the chirping of a cardinal in a tree outside, the office is absolutely silent.

JOY POINTS OUT THAT THE NIEMCEWICZ ACCOUNT, WITH ITS powerful depiction of brutality, is a very complex document. For example, Niemcewicz exaggerated the number of acres and slaves held by Boisneuf and the Vincendières. "It's important to place this account in context, and check the facts," she says.

The French Catholic Vincendières were, of course, very different from their neighbors, and Niemcewicz was getting some of his information from the carriage driver, a local German American. Those cultural differences may have engendered some hostility. It's also true that Payen de Boisneuf's habit of not paying his debts probably didn't endear him or the Vincendières to the local populace. That said, Niemcewicz's account accurately describes the house that still stands on the property, and Joy notes that his reference to legal actions provides another source of evidence. "We were able to corroborate at least part of his story in the county court records," she says.

Indeed, there are six court records of complaints against Boisneuf, and one case against Victoire, for mistreating their slaves. None of these complaints was upheld; slavery was legal, the abuse of slaves not uncommon.

"The Vincendières' slaves are almost invisible in the historical record. Archeology is the only way their story can ever be told."
—Joy Beasley, archeologist, Monocacy National Battlefield



Right above: Archeologist Joy Beasley. **Far right:** The stone barn with modern farm buildings in the background.





“Four miles from the town we forded the river . . . On its banks one can see a row of wooden houses and one stone house with the upper storeys painted white. This is the residence of a Frenchman called Payant . . . One can see on the home farm instruments of torture, stocks, wooden horses, whips, etc.” —from the journal of Julian Niemcewicz, Polish writer and diplomat, 1798

However the tensions between the owners and their neighbors may have tarnished the written record, it seems plain that the anonymous residents of the slave quarters faced some brutal and terrifying prospects.

Ultimately, it appears likely that the Vincendières couldn't make L'Hermitage profitable, at least in part because of their large slave population. Frederick was not Saint-Domingue, and the mixed cereal crop farms of the Monocacy valley were nothing like the high volume sugar operations of the Caribbean. They may have tried to rent their slaves out to other farms or to local iron furnaces or other industries, but by 1820, the Vincendières had reduced their slave population by half. By 1828 they had sold L'Hermitage. Almost all of their slaves were sold away to markets in Louisiana, including at least one woman who had been with their family since their arrival in Maryland. Their names and stories and ultimate fate are all lost to history.

THERE IS AN UNWRITTEN TENET AMONG ARCHEOLOGISTS, as old as the profession itself: “Your most spectacular discovery will be found on the last day of the project, probably in the last hour.” As we drive out to look at the farm, Joy tells me a little about discovering the slave village, and I'm not surprised when she tells me “it was the last thing we found!”

The inventory of the farm has proceeded over three years. Volunteers with metal detectors methodically swept the fields, followed by traditional excavations. The primary goal was the recovery of objects and ordinance from the Battle of Monocacy, as well as evidence of pre- and post-battle camps. An unexpected recovery interceded.

“The last field we tested produced a concentration of domestic and structural objects, kitchen utensils, a padlock, buttons, nails, ceramics, glass—the kinds of things you'd expect to find around a cluster of residences of some kind,” Joy says. While there was no map showing the slave quarters at L'Hermitage, the possibility of an association with the enslaved population certainly suggested itself. The objects all dated to the end of the 18th and beginning of the 19th centuries, precisely matching the Vincendières' occupation of the property.

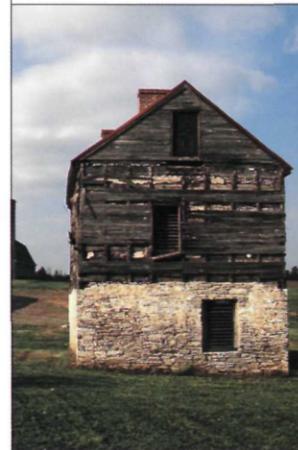
The ceramics and glass containers are, for the most part, of the most inexpensive and utilitarian varieties. When the Niemcewicz manuscript surfaced, archeologists realized that the concentration corresponded with his location of a “row of wooden houses.”

Since then, the area has been surveyed with a gradiometer to measure subsurface changes in the magnetic field, which identified several possible structural features hidden beneath the soil. Joy and her staff of two archeologists and one graduate student are engaged in limited excavations. With the site's boundaries better defined, the inventory of objects has grown and they've pinned down what appears to be the remains of the structures. Clearly, a record of life in the slave quarters is sealed below the surface.

When we arrive, Joy observes that “the basic inventory is winding down now, and we're not anticipating any further work here by our staff in the near future. Still, a larger-scale excavation would add a lot of missing and important pieces to this puzzle.”

I ask how she would measure the public value of the archeology at Best Farm. “Well, we're obviously adding to what's known about regional and local history. Several graduate students have conducted research toward their degrees here through our cooperative partnership [with the University of Maryland]. We're using the information to guide future development and interpretation in this part of the battlefield. Still, the greatest potential of this site lies in the missing information it might produce. The Vincendières' slaves are almost invisible in the historical record. Archeology is the only way their story can ever be told.”

Monocacy's Susan Trail is one of the few national park superintendents who started as an archeologist. When I speak with her about the excavations, her understanding and enthusiasm are immediately apparent. Still, as exciting as the discovery is, the tale of L'Hermitage is only a part of the story that set the stage for the Civil War conflict that remains the park's focus. Monocacy's primary mission is to interpret and preserve the history of the battle. Trail believes that



Top: The original house built by the Vincendières when they arrived from the Caribbean in 1793. **Bottom:** Archeologist Paul Shackel of the University of Maryland, a partner on the project. **Left:** View of the Vincendières' second house through the stone barn.

Best Farm plays a role in that mission. “Stories like the history and archeology of L’Hermitage help develop the context for Maryland’s role in the Civil War,” she says. “This was a divided border state, with deeply divergent and complex views about slavery.”

Ultimately, Trail sees the story of the Vincendières and their slaves as an important part of the history. “I would like to see future exhibits that focus on the cultural landscape at Monocacy, and that’s where the story of L’Hermitage would be fully developed.”

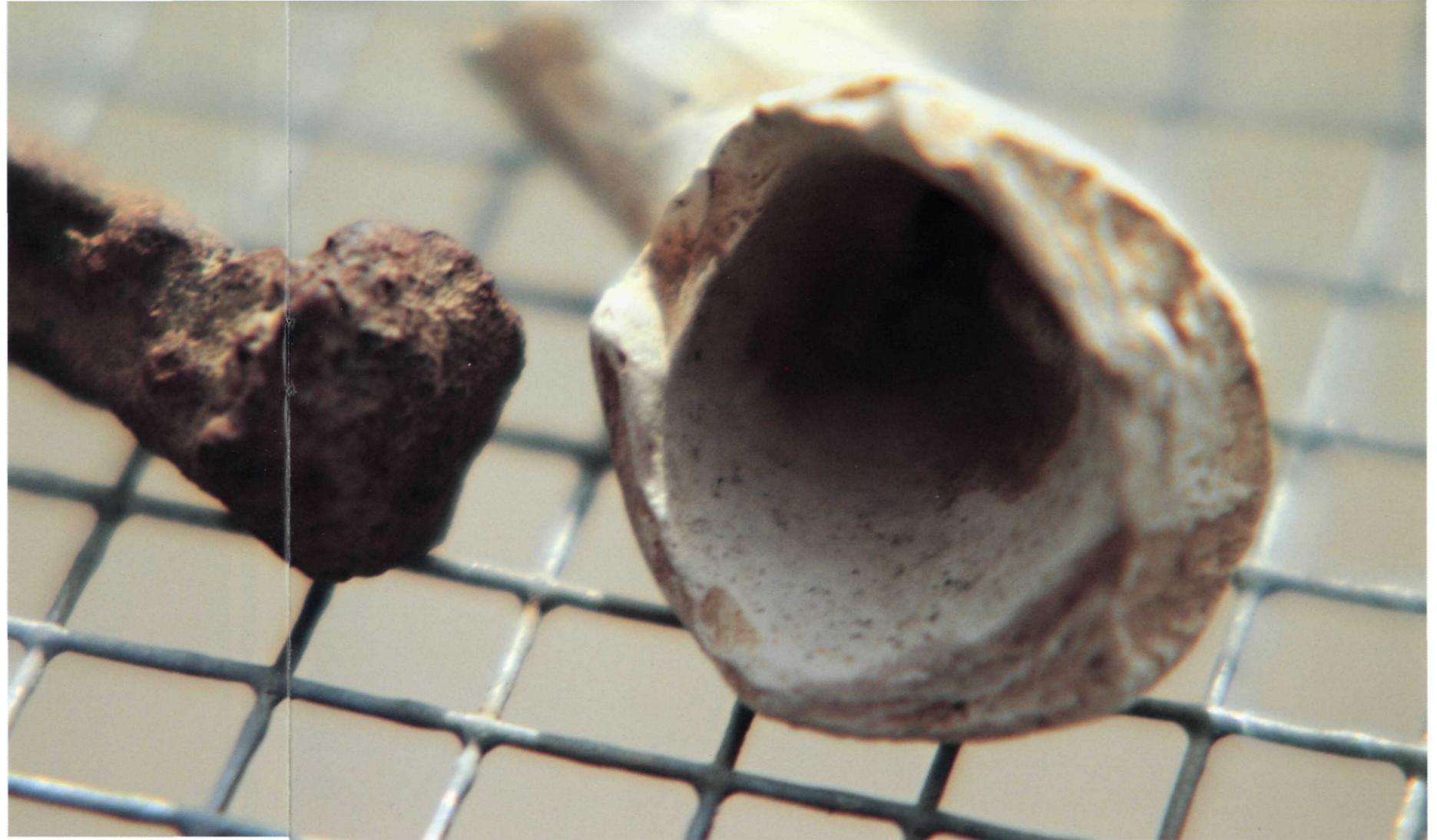
When I speak with Elizabeth Stewart, research historian with the Maryland Commission on African-American History and Culture, she agrees that there are “about a thousand reasons” why the work at Best Farm is critical to understanding African American history in Maryland and elsewhere. She notes that the 12 slaves who arrived from Saint-Domingue after the revolt brought with them the experience and ideas that led to the revolution. In her view, excavations at Best Farm could “tell us an awful lot about the spread of those ideas, and about how they failed or succeeded.”

She also notes that L’Hermitage, essentially an attempt to recreate a Caribbean plantation-style operation in the Maryland piedmont, was unprecedented and “merits further study on that basis alone.” For Stewart, there’s no doubt that the slave village could help fill in the details of day-to-day life for a population about which we know very little.

Stephen Potter has no doubts about the discovery either. Potter, an archeologist with the National Park Service National Capitol Region, is the co-principal investigator of the project with Paul Shackel of the University of Maryland. As we talk, he notes other excavated slave sites—at Monticello, at Carter’s Grove, and at least a dozen other places. But he is quick to say that “L’Hermitage is totally unique!”

That’s true on several counts. The site was the home of one of the largest slave populations in or near Frederick, which at the time was a busier commercial center than Baltimore. The enslaved people were likely a mix of Saint-Dominguans, Africans, and African Americans, with the potential for considerable cross-cultural influence and exchange. Unlike other excavations farther south, L’Hermitage is a post-colonial site.

Opposite:
A rusted hand-wrought nail and pipe from the excavation.
Below:
Archeologists Stephen Potter and Joy Beasley search the soil.



Left: War of 1812 button from the uniform of the American Third Rifle Regiment. It’s still a mystery how it found its way to the site.



But perhaps its most important archeological potential lies in the row of wooden houses that once stood here. As Potter observes, “L’Hermitage has the potential to produce not one but a number of separate and distinct residences. That means multiple features and distributions of objects that can be compared to each other.” In other words, this may be the very rare kind of site where specific relationships and exchanges of ideas, goods, and individuals among households are found and evaluated. In such a place we can come face-to-face with the former residents and the day-to-day realities of their lives.

AFTER I HAVE A LOOK AT THE ARTIFACTS, AND CAREFULLY put them back in the bag, I spend a few minutes with Joy and her crew, making the kind of small talk about the vagaries of field work that happens whenever archeologists get together. It is late afternoon, and time to close up for the day. The crew loads their vehicle; we all shake hands and go our separate ways. I have an hour-and-a-half drive home, so there is ample time for reflection. For a while, the technical complexities of the farm’s past absorb me: the gradiometer results, an unusual button just discovered that day, the need for additional research in Haiti and France. But larger considerations soon crowd out the minutiae.

In the end, archeology isn’t only about artifacts or soil profiles or report deadlines or databases or project budgets or surveying notes; it’s about people. Those broken pieces of pottery were once held by other hands, that odd-looking button once closed a man’s jacket against the cold. The small objects connect each of us directly to other lives. The real promise of the archeology at Best Farm is that one day these lives may be reconstructed. The Vincendières’s slaves were our countrymen and women. Their status as mere property leaves them with almost no written story, and the anonymity robs them of their voice. I imagine that voice could speak about determination, perseverance, and hope in conditions that might crumble the strongest among us. We are all diminished by their silence. Through the excavations at L’Hermitage, perhaps we will finally hear them.

For more information, contact Joy Beasley, Monocacy National Battlefield, 4801 Urbana Pike, Frederick, MD 21704, (301) 668-3647, email joy_beasley@nps.gov, www.nps.gov/mono. Joe Baker is an archeologist with the Pennsylvania Department of Transportation and a member of the Society for American Archaeology Public Education Committee. He can be reached at (717) 705-1482, email joebear81@aol.com.



The roads that wind through the Catskills are lightly traveled. The lonely villages, the ramshackle farmhouses, the looming mountains half cloaked in clouds call to mind the bewitched landscape of Washington Irving's imagination. It's a place that moves with its own tempo. If time flows quickly out on the turnpike, one suspects that here the days eddy around places that recall the early frontier. Blenheim: the practical ambition of the early Germans. Schoharie: the ancient voice of the Iroquois.

So when a traveler rounds a bend and approaches a broad, shallow waterway, an otherwise surprising sight seems completely logical: a large covered bridge, dark brown and weathered, cut off from the main road, sitting high and dry as it were, leading from nowhere to nowhere.

Above: Red Oak Creek Bridge, Merriweather County, Georgia. Rural icons today, covered bridges were 19th-century necessities, the product of a growing population, economic need, and the burgeoning field of engineering and design. This specimen dates from the 1840s.

ALL PHOTOS JET LOWE/NPS/HAER; DRAWINGS NPS/HAER

SPANNING AMERICA

by Joe Flanagan

The Historic American Engineering Record documents a legacy of covered bridges *Photographs by Jet Lowe*

JET LOWE OF THE NATIONAL PARK SERVICE unpacks his camera, tripod, and film holders on the rough gravel road. This is the last of six covered bridges in Lowe's two-week swing through New York, New Hampshire, and Vermont, part of a congressionally authorized initiative to preserve these icons of 19th-century America.

A photographer with the Historic American Engineering Record, Lowe prowls defunct mills and auto factories, documenting historic industrial sites and relics of early engineering. He's at home around steel and machinery, but the echo of his steps on the cavernous structure's scarred planks evokes a distinctly agrarian world.

National Park Service architects made measured drawings of Blenheim Bridge in the 1930s, which are part of HAER's vast archive of historic documentation at the Library of Congress. With the addition of Lowe's photographs—and a historical report—Blenheim Bridge will be, in a sense, recreated there. HAER aims to record some 60 bridges by the end of the three-year project, in measured drawings as well as photographs and written histories.

Blenheim Bridge is one of the world's longest wooden covered spans at approximately 210 feet between abutments. Lowe, looking up at the elaborate geometry, says "in scale and size this was the pinnacle of the technology."

Like old gristmills and rusting farm equipment, covered bridges have always charmed tourists exploring the nation's backroads and byways. But they mean much more to a loose

Above, right: Variations of the wooden truss proliferated in the covered bridge boom of the 19th century. Designers patented their own versions, which builders had to pay a fee to use. North Carolina's Bunker Hill Bridge, right, features a rare truss designed by Civil War general Herman Haupt. Only two of these bridges exist today.



confederation of preservationists, historians, craftsmen, and advocacy groups. David Wright, president of the National Society for the Preservation of Covered Bridges, calls them "documents of the age that produced them."

The HAER project is part of an initiative known as the National Historic Covered Bridge Preservation Program. A result of legislation introduced by Senator James M. Jeffords of Vermont, the program funds repair and restoration while promoting research and outreach.

The Federal Highway Administration administers the program, with about \$25 million in grants



Above left: Interior of Oregon's Larwood Bridge. Center and right: Blenheim Bridge in New York's Catskills. The site of political rallies and weddings, covered bridges took on social roles not likely anticipated by their builders.



framing he's after, but a glimpse into the mind of Nichols Powers, bridge builder.

Native Ingenuity

The nation's oldest bridges are in New England and the Middle Atlantic. Some on the West Coast predate those of the Midwest because of roads needed during the Gold Rush.

In the nation's early history, the waterways of the East were major travel routes, but by the 19th century they were an obstacle to the progress of an expanding young country. When the first covered bridges appeared, in the early 1800s, they borrowed an innovation developed in Europe centuries before: the wooden truss. Engineers and carpenters took liberty with the technology and before long variations proliferated, the new forms usually known by the surname of their inventors, Paddleford, Partridge, Haupt, Burr. Bridges came to be classified by their trusses. Huge, rough-hewn assemblies of timber, the trusses were carefully calculated equations of compression and tension.

Truss bridges could span much longer distances than the arched stone structures of old. It soon became evident that an uncovered bridge would rot in 10 to 15 years. Protected, they are as close to permanent as wood can be. Some have stood for well over a century and a half.

Lowe puts his hand on the structure's central arch, nearly black with age, still bearing the marks of the chisels and broad axes wielded by the builders. "This was probably virgin timber," he says.

awarded since 1999. Restoration grants go to the states, who must make the case for their threatened bridges. Spans must be listed in (or eligible for) the National Register of Historic Places, and must be preserved according to standards set by the Secretary of the Interior.

When HAER received a \$1 million grant for research, one of the first steps was convening a group of historians, architects, engineers, and craftsmen, which yielded a list of important bridges along with plans to develop a traveling exhibit [see sidebar, page 35] and a database to monitor the condition of the bridges.

Between 5 and 10 bridges are lost every year. Some fall victim to floods, some simply decay with neglect. Many are the objects of arson. Others are compromised by well-intended alterations—what one advocate calls “demolition through redesign.”

In the Mind of the Builder

HAER staffers are like forensic portraitists, documenting structures that sometimes have been abandoned for decades. On occasion, they are the last sympathetic visitors before the wrecking ball swings.

However, Blenheim Bridge, built in 1855, is not threatened. It was designated a national historic landmark in 1964. In addition to being one of the world's longest covered bridges, it is one of the few two-lane varieties that survive. Lowe puts his hand on the structure's central arch, nearly black with age, still bearing the marks of the chisels and broad axes wielded by the builders. “This was probably virgin timber,” he says. “Some of the pieces are over 30 feet long. And look how many there are.”

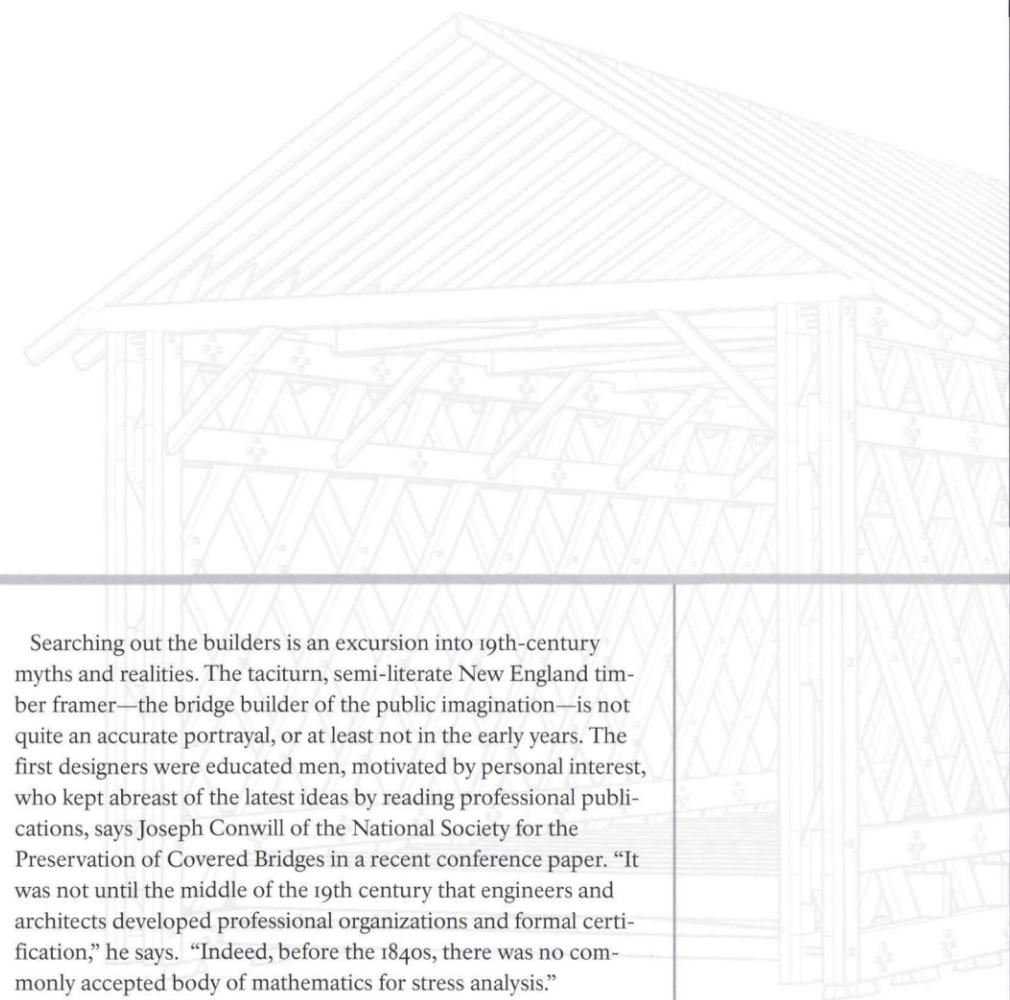
Lowe seeks out the telling features to photograph. He often looks at the center first. “There's usually something interesting going on with the timbers,” he says. “The older bridges are very expressive that way . . . you can see what's under tension and what's under compression.” He examines the cross bracing that supports the roof, where it intersects with the collar ties and upper framing. “What I plan to do is shoot that nexus up there in the middle,” he says.

Lowe positions the tripod on the planks as Schoharie Creek rushes below. With the shutter open and a dark cloth over his head, he takes aim at the intersecting timbers, and it's not simply a record of the

Above: Neal Lane Bridge, Douglas County, Oregon. Local building traditions produced styles that varied from region to region. Western bridges have a distinct appearance compared to those built in New England.



Above: The Flat River flows beneath White's Bridge in Michigan, built shortly after the Civil War.



Searching out the builders is an excursion into 19th-century myths and realities. The taciturn, semi-literate New England timber framer—the bridge builder of the public imagination—is not quite an accurate portrayal, or at least not in the early years. The first designers were educated men, motivated by personal interest, who kept abreast of the latest ideas by reading professional publications, says Joseph Conwill of the National Society for the Preservation of Covered Bridges in a recent conference paper. “It was not until the middle of the 19th century that engineers and architects developed professional organizations and formal certification,” he says. “Indeed, before the 1840s, there was no commonly accepted body of mathematics for stress analysis.”

The earliest bridges were custom designed. But before long, designers and builders began patenting plans. Standardization took hold fairly early. Like kit houses, the bridges could be assembled with prefabricated parts transported to the site.

But in some places, regional culture held sway, leaving its mark on bridge styles. In New England and Pennsylvania, where there was a strong craftsman tradition, individual builders handled the job from start to finish. Standardization never got much of a foothold in the area.

So the rustic bridge builder of lore has at least some basis in fact. Many were farmers moonlighting as carpenters. Others were millwrights who took on the occasional bridge. Says Lola Bennett, the project’s lead historian, “Most had no formal training, but a lot of mechanical aptitude and common sense.”

Historians estimate that at the peak of their popularity, there were some 14,000 covered bridges in the United States. Today, about 800 are widely scattered around the country, most in Pennsylvania, Vermont, Ohio, and Indiana.

Many states have covered bridge societies, which not only try to raise awareness, but fund repairs to ailing and endangered spans. These groups frequently work with state departments of trans-

Above: Brown Bridge, built in Vermont in 1880. Right: Holliwel Bridge, Madison County, Iowa. Building a bridge in a 19th-century rural community engendered a social process that illustrates the local business relationships, the political landscape, and craftsman traditions. “The process differed from region to region,” says historian Lola Bennett.



portation, intervening on behalf of bridges scheduled for repair or alteration.

The National Society for the Preservation of Covered Bridges, formed in the 1940s, is one of the most active. In its early years, “bridges were disappearing one after another,” says David Wright. The pace has slowed dramatically, but there is the new threat of what he calls “demolition through redesign.”

Today, the engineer’s first impulse is to apply modern materials and technology to a sagging or worn-out bridge. Wright describes “invading a truss,” or applying steel gussets and modern fasteners to the original work.

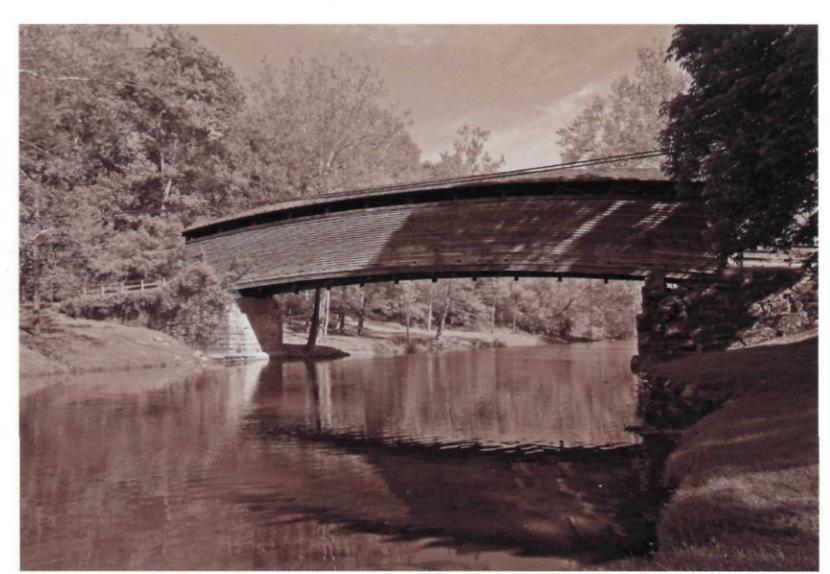
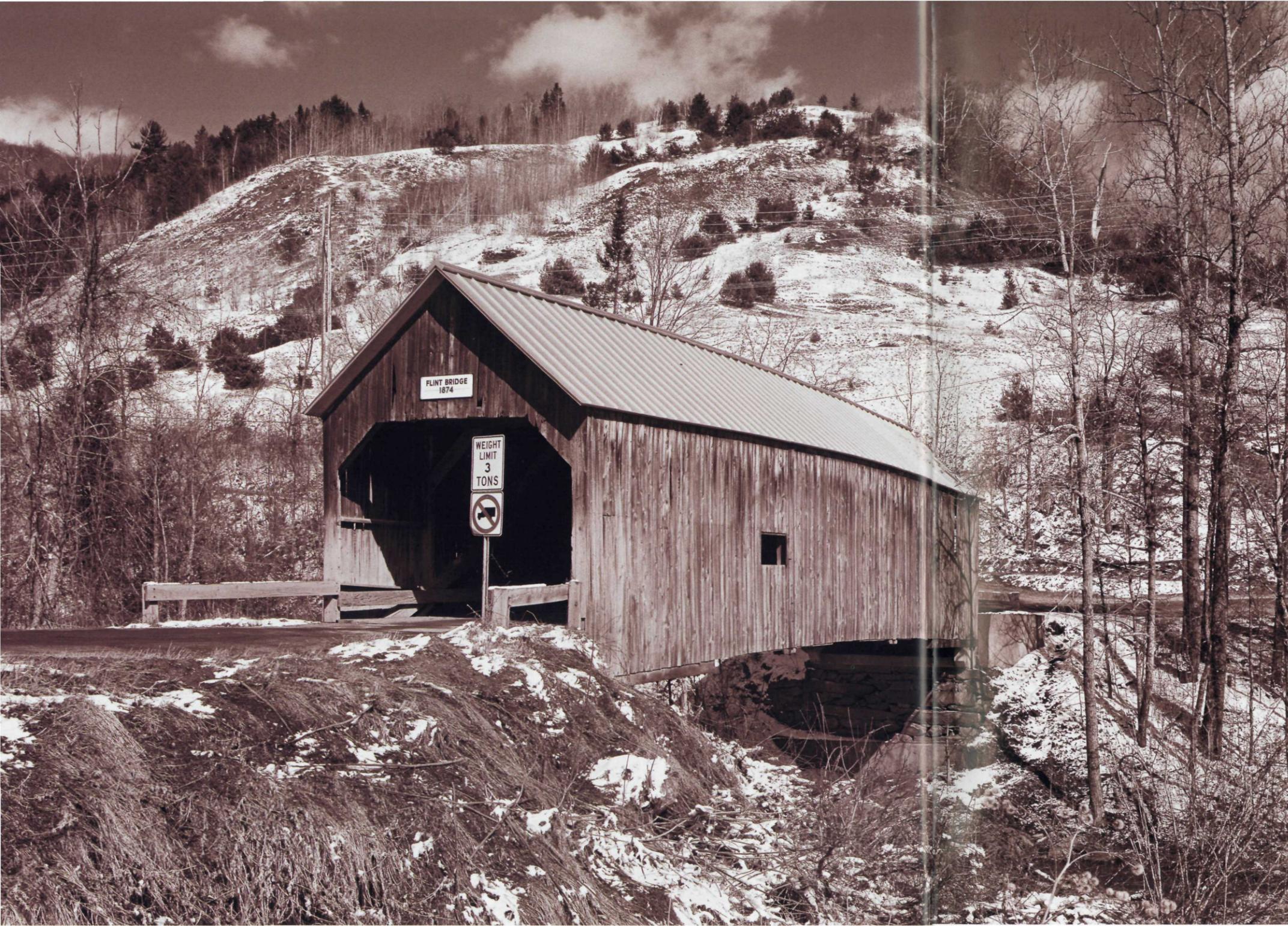
Arnold Graton, Jr., a descendant of New Hampshire bridge builders who performs historically accurate repairs, is the type of craftsman advocates try to bring aboard. According to Graton, engineers often want to increase a covered bridge’s load capacity. The preferred technique is to add new piers in the river and run steel stringers from pier to pier to reinforce the deck. This yields what he calls a “romantic structure sitting on steel.”

To promote preservation, FHWA has published engineer Phil Pierce’s *Covered Bridge Manual*, an exhaustive 340-page guide intended primarily for professionals that addresses loads, structural analysis, connections, and maintenance. It offers an entire section of restoration case studies. Yet its author concedes that some things about covered bridges continue to defy explanation: “How [to] explain the discrepancy between theoretical weakness and observed performance?”

Lowe has chosen to photograph the interior of Blenheim Bridge at night, because of the daylight glare at the entrances. Across the creek, the little town of North Blenheim is quiet, probably not much changed since the bridge’s heyday.

Major Hezekiah Dickerman built a tannery on Schoharie Creek in 1850, but the hemlock he needed for tannin was on the other side. So Dickerman hired Nichols Powers, Vermont’s best-known bridge builder. The span was built in the village, then disassembled, moved to the creek, and put back together again. It took 127 tons of lumber plus a few tons of hardware. Locals thought it would collapse of its own weight. In its 149 years, it has been flooded, hit by lightning, and set on fire three times.

Lowe gets set to shoot in the darkness. For a frozen moment, his flash lights up an amazing



Clockwise from left: Flint Bridge in rural Vermont; Virginia's Humpback Bridge; Uhlerstown Bridge in Pennsylvania. The structures still conceal things about themselves and the world that produced them. "Some of these bridges ask their own questions," says photographer Jet Lowe.

intersection of verticals and diagonals. And in that split second of light, one can see generations of graffiti carved in the wood.

The bridges were often community centers, says Bennett. "At some, they held town meetings, political rallies, and church functions." And they were a good place to post advertisements. Traces of paper in the Blenheim Bridge—still stuck to nail heads—are so old they have the consistency of cigarette ash.

Rethinking the Truss

The crisp drawings that line the walls of the HAER offices look like a designer's concept for a set of retro structures. It's only when one reads "Sunday River Bridge, 1872" or "Taftsville Bridge, 1836" that it becomes clear that one is looking at the past, not the future.

HAER architects spend days at a bridge, producing plans, elevations, details, and per-

spective drawings. Each architect handles a different aspect of the documentation.

"Some bridges have interesting details, like the joinery and through-bolts," says project leader Christopher Marston, "and we'll try to capture that." The drawings, which include exploded diagrams with numbered parts keyed to descriptive text, are so well rendered that they could be instructions for the ultimate build-it-yourself bridge kit.

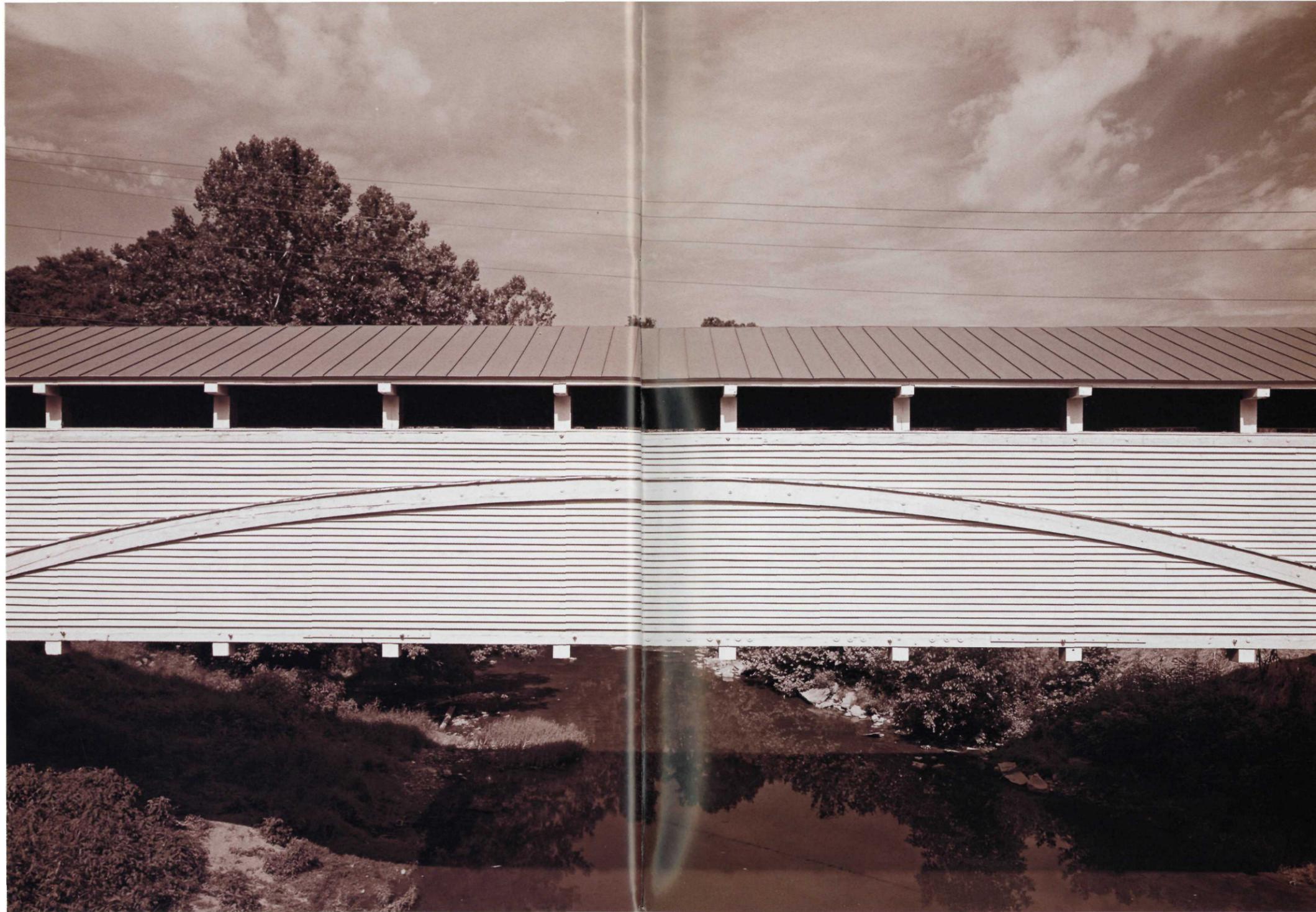
Bridges on tour Smithsonian Exhibition Hits the Road in 2006

A covered bridge exhibition, developed by HAER with the Smithsonian Institution Traveling Exhibition Service, starts its road trip in March 2006. For interested venues, time slots are still available at this writing. The core of *Covered Bridges: Spanning the American Landscape* will be photographs and drawings like the ones here. There will also be a section

on engineering taken from the analyses performed during the HAER project, with models showing the structural action of beams, arches, and trusses. Actual segments of bridges will be included too, as well as stories unearthed in the research on people and communities. Rounding out the exhibit will be ephemera from the National Museum of American History—adver-

tisements, documents from bridge building companies, and so forth. The exhibit is available to venues nationwide. For more information, contact Shannon Perry, Smithsonian Institution Traveling Exhibition Service, 1100 Jefferson Drive, SW, Suite 3146, Washington, DC 20013-3168, (202) 633-3140, email perrys@si.edu, www.sites.si.edu/exhibitions.

Right: West Virginia's Barrackville Bridge, built in 1853 to cross Buffalo Creek. Below: Honey Run Bridge, Chico, California, saved from demolition by preservationists in the 1960s.



Lowe gets set to shoot in the darkness. For a frozen moment, his flash lights up an amazing intersection of verticals and diagonals. And in that split second of light, one can see generations of graffiti carved in the wood.

Eric DeLony, retired manager of HAER and one of the project's originators, brought in civil engineers to look at the dynamics of the truss construction. "There were a dozen successful truss forms patented," he says. "And there would be drawings in the patent documents. You really get a sense of what the builders were thinking."

Using this information, the engineers looked at the bridges using modern structural evaluation computer programs. "You can actually load a bridge," says DeLony.

"As a hay wagon and horse go across, you see how the components react." He says that such analysis is one of the most cutting-edge aspects of the documentation. Some of this information will be in the exhibit developed with the Smithsonian Institution Traveling Exhibition Service [see sidebar, page 35].

There are other innovative facets, including the first "best practices" conference on covered bridges, convened by the National Park Service Historic Preservation Training

Center with the help of the University of Vermont and Historic Windsor, Inc., a non-profit. An online database—developed by the National Park Service Cultural Resources Geographic Information Systems Office, mainly for the preservation community—will be a way to monitor and update information about the bridges. Users will be able to search by county, name, year built, and length, with drawings, photos, and histories. An interactive mapping component will give detailed geographic information.

Saved from Progress

For the most part, covered bridges went out with the 19th century. In Blenheim Bridge's bolts, square nuts, and washers, one can see the approaching dominance of steel.

The old bridge was bypassed in 1932. A concrete and steel span went up about a hundred yards downstream. That bridge, now a crumbling, rusted antique, is being replaced by yet another. As Lowe sets up for a distance shot the following morning, both of Blenheim Bridge's latter-day cousins

crowd the picture. Asked if they are in the way, he says, "One of the things that's very important in HAER documentation is context. And this definitely captures context."

The crew erecting the span shows no curiosity about the photographer or the weathered hulk behind him. Tucked into a bend in the road, with the Catskills rising behind it, Blenheim Bridge looks like part of the landscape. The crew's sense of urgency speaks of a world that has no time for wooden relics. But something in the way the

old bridge sits there, the fact that it is there at all, says otherwise.

For more information, contact Christopher Marston, (202) 354-2162, email christopher_marston@nps.gov.

GILDED AGE GRANDEUR

DURING THE GILDED AGE, well-heeled visitors flocked to North Carolina's Blue Ridge, their destination the small town of Asheville, an eclectic and cosmopolitan getaway known for its architecture and views. George W. Vanderbilt was so smitten that he chose the place to erect one of America's most lavish estates, a distinction it retains to this day. **BILTMORE HOUSE AND GARDENS**, completed in 1895, is just one stop on a new travel itinerary developed by the National Register of Historic Places. Part of a series of online guides that highlight historic properties, this latest addition profiles the small town that became known as the "Paris of the South." **CULTURAL ALLURE ASIDE**, the clean mountain air was beneficial to sufferers of consumption and other ailments. When the railroad arrived in 1880, Asheville's popularity increased further still. **VANDERBILT'S ESTATE**, a national historic landmark, is a French Renaissance manor designed by Richard Morris Hunt, with gardens designed by Frederick Law Olmsted. In an era when bathrooms were practically unknown, the Biltmore had 43. **VANDERBILT INTENDED** Biltmore as a country retreat and showcase for his vast art collection, which is still there. With 250 rooms, 65 fireplaces, a vineyard, a conservatory, and other extravagances, Biltmore—its banquet hall shown here—is a remarkable example of the era's prevailing tastes and high-style craftsmanship. **THE ITINERARY** takes visitors on a tour of Asheville's many architectural gems. Go to www.cr.nps.gov/nr/travel/asheville.



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Common Ground: Preserving Our Nation's Heritage winter 2004 / volume 9, number 4
Published by the National Park Service for the Heritage Community

Formerly Common Ground: Archeology and Ethnography in the Public Interest

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PUBLISHER

Sue Waldron

EDITOR AND DESIGNER

David Andrews

ASSOCIATE EDITOR

Joseph Flanagan

ISSN 1087-9889





“We’re interested in common people, the people who left few records accessible through statistics and the census and things like that. We’re interested in what buildings tell us about ordinary, everyday life.”
—from *“Changing Vernacular,”* an interview with Thomas Carter,
president of Vernacular Architecture Forum, page 8

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National Park Service
U.S. Department of the Interior
National Center for Cultural Resources
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Washington, DC 20240-0001

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